Explanation of Significant Difference
M. Wallace and Son, Incorporated
Site ID 448003

INTRODUCTION

The M. Wallace and Son, Incorporated Site (Site No. 448003) is an active scrap yard where the historic disposal of transformers and batteries resulted in releases of lead and Polychlorinated Biphenyls (PCBs) to the soils and groundwater of the site and to the surface water and sediment of an adjacent quarry pond.

On March 31, 1999, the New York State Department of Environmental Conservation (NYSDEC) issued it's Record of Decision (ROD) (selection of a remedy) to address identified contamination at the M. Wallace and Son, Incorporated Site. The major components of the selected remedy were removal of PCB and lead contaminated soils with off-site disposal, continued and enhanced removal of light non-aqueous phase liquid (LNAPL) from the bed rock groundwater and continued treatment of quarry pond water prior to discharge to offsite surface drainage and provision for public water to area residents.

The subject of this Explanation of Significant difference is the deferment of backwash water treatment at the quarry pond treatment plant. This system has been operating approximately seven years without treatment of the backwash water (to remove PCBs), but treatment was required in the ROD. For reason enumerated in the remainder of this document, backwash water treatment will be deferred until such time as groundwater concentrations are controlled. All other provisions of the selected remedy will be implemented at this time.

Niagara Mohawk and its consultants have identified a number of technical concerns related to the backwash treatment remedy component of the selected site remedy. Specifically, the mass of PCB which would be removed from the quarry if the backwash water were to be treated is believed to be a small fraction of the PCB entering the quarry from the LNAPL seeps in the bedrock; the concentration of PCB in the LNAPL seeps range up to over 2,000 ppm while the concentration of PCB in the backwash water is seven orders of magnitude less than this based upon the higher backwash water PCB levels seen (0.0008 ppm). However, the present worth cost to construct and operate the requisite backwash treatment facilities is estimated to be $1.3 million ($663,000 in capital and $443,000 in annual operation and maintenance). The estimated cost of the other elements of the remedy is estimated to be $4.5 million ($1.5 million in capital and $238,000 in annual operation and maintenance). This disproportionately high incremental cost for the backwash treatment system is directly related to the pumping rate for the quarry pond water treatment system. This quarry pond water treatment system pumping rate is based upon the goal of maintaining an inward gradient in the surrounding fractured bedrock so that the propensity for water in the quarry pond to migrate into the surrounding

bedrock is minimized. Also, Niagara Mohawk maintains that backwash water treatment facilities would need to be sited on a major portion of the Wallace & Sons, Incorporated property (to be remediated for PCB soil contamination) since there is not adequate space at the quarry pond to accommodate the requisite facilities, which adds to the costs of providing backwash treatment.

The NYSDEC has reviewed the additional information provided by Niagara Mohawk and finds that treatment of the backwash water should be deferred until the source of PCB to the quarry is remediated or reduced to the maximum extent practicable at which point the efficacy of treating the backwash water would be reevaluated. However, the ROD must be amended to allow this approach to be implemented. There are three types of ROD amendments: an administrative change, an Explanation of Significant Difference (ESD), and a fundamental change. An administrative change is minor in nature, such as a typographical alteration, while a fundamental change is a complete modification in approach, such as removal versus capping. An ESD addresses everything in between. Since deferring the backwash treatment remedy component for reevaluation pending mitigation of the PCB source to the quarry is not a fundamental change to the remedy, the NYSDEC has determined that an ESD is appropriate.

This ESD only addresses the quarry pond treatment system backwash water. All other aspects of the ROD remain unchanged. This ESD is part of the Administrative Record for the M. Wallace and Son, Incorporated site, and is available for public inspection at the NYSDEC - Region 4 Headquarters, 1150 Westcott Road, Schenectady, NY 12306.

SUMMARY OF SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

The M. Wallace and Son, Incorporated site is an active 6.6 acre scrap-yard and metal reclamation facility, located in Cobleskill, Schoharie County that has operated since 1945. The site is bounded to the South by Route 10 (Elm Street), to the West by West Street, to the North by the High School athletic field, and to the East by an apartment complex.

Between the years 1945 and 1980, transformers containing PCBs were purchased from Niagara Mohawk Power Corporation (NiMo) and dismantled at the M. Wallace and Son, Incorporated Site to recover the recyclable metals. This resulted in spills of residual, PCB bearing dielectric fluid, which contaminated the site.

The quarry pond located down gradient on the site acts as a catch basin for the contaminated groundwater discharging from the upgradient salvage area. Pond water is actively pumped and treated to remove PCB contamination prior to being discharged to a drainage channel and follows storm water drainage which eventually discharges to the Cobleskill Creek. The results of sediment sampling indicates that PCBs were historically transported along this same route from the quarry pond.

Interim Remedial Measures (IRMs) are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. IRMs that have been completed at the site include excavation of PCB contaminated surface soils and quarry pond outlet sediments; installation/operation of a quarry pond water treatment facility; groundwater LNAPL recovery; installation of two residential water treatment systems; removal of impacted sediments from the quarry pond outlet channel and the impacted sediments from Campus Creek.

Major elements of the ROD include the excavation and off site disposal of PCB contaminated soils from the scrap yard area; installation of a village public water supply line and residential connections; the continued operation of the quarry pond water treatment; the continued collection and off site disposal of LNAPL from coreholes #3 and #4; an enhanced LNAPL recovery and handling system to be designed and implemented; completion of excavation of contaminated sediments in the outlet and storm water channels; long-term monitoring and maintenance; and treatment of the backwash water which is generated from the operation of the existing quarry pond water treatment system.

DESCRIPTION OF THE SIGNIFICANT DIFFERENCES AND THE BASIS FOR THE DIFFERENCES

The only difference between the March 31, 1999 ROD and this ESD is the deferral of treatment of the backwash water generated from the operation of the quarry pond water treatment system until such time that the source of PCB to the quarry is remediated or reduced to the maximum extent practicable at which point the efficacy of treating the backwash water would be reevaluated.

This backwash water is currently discharged back into the quarry pond. The provision for backwash water treatment in the ROD was based on the potential for migration of PCB from the quarry into the underlying bedrock groundwater. Although this potential release condition has not changed, the fact that the cost of providing backwash treatment would be disproportionate relative to the other remedy components; providing backwash treatment is otherwise less feasible due to the need to locate it at the top of the quarry; recognizing that any potential release to surface waters will continue to be mitigated based upon the continued operation of the quarry pond treatment unit; and recognizing that the source of PCB to the quarry pond from the overburden soils above the quarry and the LNAPL in the bedrock are the more significant sources contributing to the potential release of PCB into the groundwater underlying the quarry pond, the NYSDEC is deferring backwash water treatment. The NYSDEC considers this amendment to the ROD equivalent to the ROD-prescribed remedy in terms of protection of human health and the environment.

SOURCES FOR MORE INFORMATION

Additional information concerning this or any other aspect of the Wallace and Son Site's remediation program, please contact:

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5/25/2000

Date

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