State Waste Discharge Permit Proposal

J.H. Baxter & Company
Arlington Facility

Introduction

This proposal by J. H. Baxter & Company to the Washington Department of Ecology is in response to discussions related to our appeal of Ecology's Order No. DE 00WQNR-850 and the State Waste Discharge Permit No. ST-7425. The proposal addresses several technical issues discussed during the June 21, 2000 meeting; in particular point of compliance and associated monitoring, closure of french drains in the Untreated Wood Storage Area, dioxin analysis, and stormwater management. This proposal focuses on interim actions that are consistent with our current understanding of the site based upon work completed during the MTCA Remedial Investigation and impacts of stormwater on facility operations. These interim actions are also being proposed to help integrate the MTCA cleanup process with stormwater management under the Water Quality and Underground Injection Control (UIC) programs.

In addition, we wish to emphasize that Baxter will continue to utilize best management practices with regard to process water management, hazardous waste management, and stormwater management. We will ensure that all employees are acutely aware of these required practices and take appropriate action upon violation.

Remedial Investigation Findings

The remedial investigation data indicates that NAPL in subsurface soil in the former butt tank area, and in the old gravel pit/drainage channel area, is the primary source of PCP in the groundwater. This is indicated by the site conceptual model and by fate and transport modeling of measured soil and groundwater PCP concentration data. The groundwater contamination consistently observed in MW-3 and BSX-1 appears to result from groundwater flowing through NAPL beneath the former butt tank and old gravel pit area and migrating hydraulically down-gradient to the these well locations. Further, the existing data indicate that stormwater entering the french drains is unlikely to be a significant contributor to the contamination observed in groundwater.

Monitoring Under the State Waste Discharge Permit

Parcel A; Treated Product Storage Area

We propose groundwater monitoring for compliance under the State Waste Discharge Permit (Permit) within the Treated Wood Storage Area. As there are no longer any point source discharges as a result of french drain closures, the point of compliance is appropriately at the closest receiving water body, which is the groundwater

directlybeneath the storage area. Therefore, we propose monitoring in the following locations:

- HCMW-6 located in the central treated product storage area;
- HCMW-5 located just south of the treatment plant adjacent the former drains 25 and 26; and
- MW-2 located adjacent the main storage yard ditch to the north, which is also the area hydraulically down-gradient of the treated product storage yard.

Monitoring parameters will be similar to those proposed in the Permit, except that TPH-Dx will be substituted for oil & grease, and water level measurements will be substituted for flow measurements.

The monitoring schedule will be quarterly for 2 years, with a reduction to twice a year—in the spring and fall—if all samples are consistently non-detect during the period of quarterly monitoring.

Parcel B; Untreated Wood Storage Area
Water quality monitoring in the untreated wood storage area will be in the location of those drains as identified in the State Waste Discharge Permit;

- Composite samples from FD 19 through 21, 1 through 6, and 7 through 12; and
- Discrete samples from FD 16, 17, 18 and 22.

The intent of the discrete sampling is to help determine the source area for the low level PCP previously detected in the untreated wood area stormwater samples. The monitoring parameters and schedule would be as outlined in the State Waste Discharge Permit, except that we request relief from the requirement to immediately close any drain where PCP is detected. Instead we propose, that one wet season of sampling data (September and May) be collected to confirm any indicated detection and to identify the specific drains that are affected. If the detections are confirmed, we would implement one or both of the following engineering designs:

- Install catch basin inserts containing activated carbon to treat the stormwater discharge (see Temporary Stormwater Treatment Engineering Design Report dated July 1, 1999) and/or
- Design a diffuse infiltration system to promote stormwater infiltration. This alternative would include a groundwater monitoring point in the area of the infiltration system.

Dioxin Analysis

We propose to use EPA Method 4425 to monitor dioxins and furans (PCDDs and PCDFs) as an alternative to EPA Method 1613. This alternative method would be validated at the Arlington site for Toxicity Equivalent Quantity (TEQ) determination.

This method could be used either as a definitive method or as a screening method for general use that would be verified periodically by a more conventional method. The cost of this alternative method is significantly less than EPA Method 1613 and has been successfully demonstrated for TEQ determination at PCP wood treating sites.

Interim Stormwater Management

The Arlington facility is currently and will continue to be affected by stormwater. Currently, areas near former FD 23, 24 and 25 are flooded as a result of May and June rain events. Flooding will most certainly become serious beginning in October and has the potential to completely shut down operations. Major facility operations that will likely flood include the railroad spur to the kilns, the valve pit under the retorts, the drip pad, and the tank farm.

We propose to evaluate four interim options for stormwater management and implement the most cost-effective option that meets with Ecology approval. The selected interim option needs to be implemented prior to October in order to prevent a potential shutdown of the facility. More than one option may be used in combination or in a staged manner. We present these interim options below with the associated advantages and disadvantages.

Option 1. Diffuse Infiltration System (DIS)
This option involves a combination of site grading and preparation as described for the Untreated Wood Storage Area. Grading and resultant modification of the topographic surface of the site would be designed so as to direct stormwater away from facilities and toward each DIS. The DIS would be comprised of relatively coarse media underlain by finer media in order to prevent plugging and subsequent site flooding. Potential limitations on the Treated Wood Storage Area include limited available space .

Option 2. Temporary Storage
This option involves pumping of excess stormwater from existing ditches to either tanks or a newly constructed lined lagoon potentially located on the woodwaste landfill portion of the property. Excess stormwater would be collected and stored during significant rain events and then, following the rain event, allowed to re-enter existing ditches in a controlled manner. Engineering analysis and design would be required to determine required capacity, liner details and construction, and geotechnical details with respect to load-bearing capacity of the landfill.

Option 3. Collection, Treatment, and Surface Water Disposal
This option involves collection of stormwater in tanks followed by treatment using filtration and either activated carbon or other adsorptive media such as zeolites. Following treatment, water would be discharged to the off-site ditch on the East side of the property. This option would likely require a modification of the NPDES permit that would likely not be achievable before the Fall. Emergency discharge of treated water may be allowable without a major modification and would be of interest.

Option 4. Collection, Treatment, and Arlington WWTP Disposal
Similar to Option 2, this option involves collection and treatment of stormwater but followed by conveyance to the Arlington wastewater treatment plant (WWTP). This option may not be practicable because of hydraulic limitations imposed by the WWTP.

MTCA Coordination—Pilot Testing of Stormwater Filter
A pilot test of a surface-water modified zeolite stormwater filter will be coordinated with the interim surface water control measures as part of the RI/FS remedial design efforts. We envision stormwater pumped from the existing drainage ditches to be routed through a perlite and zeolite filter cartridge connected in series to remove solids and PCP. The pilot testing will assist in remedial design alternatives evaluations being conducted under the MTCA program, and can be incorporated into most of the identified options.

We hope this helps us to progress toward a settlement of the site issues and look forward to our meeting on June 28, 2000 at Ecology's Northwest Regional Office.