DPCC DIAMOND PETROCHEMICALS

DPCC Spill Prevention

All site process effluent water and storm water from the process areas is treated at the BIOX Unit which is owned and operated by Arlanxeo. A system of alarms alert Arlanxeo operators to “off-spec” water entering the BIOX Unit, and “off-spec” water can be diverted to storage until the water can be processed in a manner that will not upset the BIOX process.

The two main storm water outfalls for the site are owned by Arlanxeo and drain to the St. Clair River. These two outfalls also discharge once through cooling water from the Olefins BE#3 unit which is owned by DPCC. The combined discharges are continuously analyzed as they enter the St. Clair River by Arlanxeo’s analyzer equipment.

DPCC’s Olefins area currently operates one Butadiene Extraction Unit (BE#3). A second Butadiene extraction unit (BE#2) is currently not operational. The BE#3 Unit uses once through cooling water. The company has upgraded all the once through cooling water exchangers from carbon steel to stainless steel tube bundles. This upgrade reduces the risk of failure within the heat exchangers.

In the event of a power failure, the circulating pumps shut down and once through cooling water discharges cease. The Olefins area uses acetonitrile as a solvent in the 1,3-butadiene production process, and raffinate is a secondary product of the butadiene production process.

Once through cooling water exchangers operate with the water side at a lower pressure than the hydrocarbon side. Exchangers handling 1,3-butadiene and raffinate operate at higher pressures on the hydrocarbon side than the exchangers handling acetonitrile.

In the event of an exchanger leak, 1,3-butadiene and raffinate will volatilize quickly from the water. The cooling water discharged from the BE#3 Unit is continuously analyzed as it leaves the BE#3 Unit and is once again analyzed at the point it discharges to the St. Clair River. Spill Response procedures are in place to identify steps for operating personnel to quickly identify and isolate a leaking exchanger. Critical exchangers have been twinned for this purpose.

In the event of a spill to the St. Clair River, DPCC will obtain and analyze samples taken from the river at the BASES downriver monitoring site, since the BASES monitor is unable to analyze for DPCC’s materials. The Spill Contingency Plan is reviewed annually and updated as required.