

Soap Contamination In Effluent

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Abstract. Resin and fatty acids can be released to the environment in a number of ways from a kraft pulping process using coniferous trees. Booming or floating logs in a waterway can release resin and fatty acids directly to the waterway. Debarking of wood, washing of pulp, unstable operation, or spills of black liquor or soap can release resin and fatty acids to the effluent treatment system.

Under normal operating conditions, an aerated stabilization basin can effectively degrade resin and fatty acids. During upset conditions, resin and fatty acid concentrations can be too high to be treated in the effluent treatment system, and few references exist on clean-up activities. Practical experience at the Weldwood of Canada Limited – Hinton Division bleached kraft mill in Hinton, Alberta, Canada shows that soap contaminated effluent may be treated using calcium hydroxide, sodium aluminate and pulp in the effluent clarifier. Although the effluent was still toxic after treatment, the resin and fatty acid concentration was low enough that 4.5 days in the aerated stabilization basin treated it sufficiently.