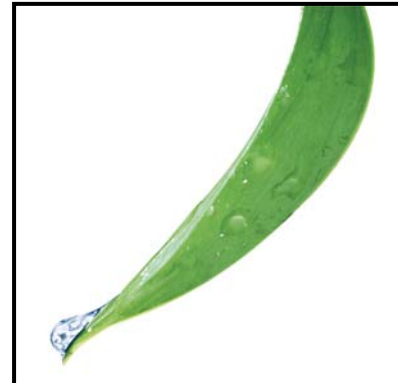


Customer Uses GE Chemicals to Reduce Total Suspended Solids in Coal Pile Runoff Ponds

Challenge

A large coal fired power producer in the Midwest, USA, had a problem with their coal pile runoff ponds at their facilities. The regulations of the Environmental Protection Agency (EPA) limit the level of total suspended solids (TSS) to a monthly average of 15. The customer was very close to an EPA violation due to elevated TSS of 20+. Water runoff adds a level of suspended solids to water streams. Elevated solid levels pose a danger to the natural habitat of the body of water that these streams flow into.



Solution

GE presented a recommendation for using a polymer KlarAid* IC1173, which would be fed into the coal pile runoff ponds. Three totes of this product were ordered and expedited to customer as quickly as possible. The entire turn around time from initial meeting to order entry was less than 3 hours. Three totes of IC1173 arrived at the power station within 48 hours and immediately shot fed one tote of the chemical into the final waste stream. A tote to feed the chemical into a secondary pond was set up to feed to the final waste stream. Lastly, GE set up a tote to feed the chemical into the primary pond that feeds into the secondary pond. By using this methodology, GE worked its way backward to ensure that the entire system was being treated. Several more totes were ordered to support customer for the remainder of the winter/spring season.

Results

Within two hours of GE's initial shot feed into the final waste stream, the TSS dropped from over 20 down to 1. That week ended with an average of less than 4, which put customer in compliance for the month. GE trickle fed the product into the primary and secondary ponds for the remainder of the winter and spring, and elevated TSS never became a problem again. Feeding of KlarAid IC1173 began in the late fall at the customer to combat this problem for the upcoming winter/spring. The savings to the customer are significant. Avoiding Notice of Violations (NOV) will save close to US\$100,000.00 less cost for chemical. From an environmental perspective, the polymer application aids in the reduction of suspended solids in customer's coal pile runoff ponds as they move through the waste stream to cooling lake. State Environmental Protection Agency has mandated an upper level of solids that can be returned to the lake to preserve/protect the aquatic life and environmental habitat. The polymer application reduces the amount of solids waste from the coal pile runoff by an estimated 6,380 tons.

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