

Don't Bet Your SBR!!

5 Year Inspection Shows 100% Solids Polyurethane Coatings Beat the Corrosion Odds



Table Mountain Casino & Bingo Located in the Foothills of the Sierra Mountains of California, twenty minutes from Fresno.

Every year, patrons of the Table Mountain Casino spend millions of dollars gambling for fun and profit. But the Chukchansi-Mono Native Americans who operate the Casino refuse to take any risks when it comes to protecting their investment.

A recent inspection of the Table Mountain wastewater treatment plant corrosion protection system revealed that, after five years of service, the internal and external surfaces of the mild steel sequencing batch reactor (SBR) units are in excellent condition.

The wastewater treatment facility is critical to the operation of the casino. If any component of the system fails, the casino must stop operations, losing hundreds of thousands of dollars.

The SBR's worst enemy is usually corrosion. Buried underground, the exterior of the SBR is subject to underground corrosion forces, while the interior of the tanks see a variety of tough conditions, ranging from complete sewage immersion to vapor phase service. To make matters worse, various chemicals may be added to control the treatment process.

Installed in 1994, the Table Mountain SBR system consists of five large steel tanks, each about the size of a tractor-trailer. Waterlink-Bioclear of Winnipeg, Canada, manufactured the system. Both the internals and externals were coated with 16 mils (400 microns) of Madison's **Corrocote Plus®**. Sacrificial zinc anodes were factory installed internally and externally for back-up corrosion protection.

In 1999 the external coating of the Table Mountain SBR was inspected using a standard reference cell and voltmeter that measures tank-to-soil potential for each unit. The readings demonstrated that the external coating is in excellent condition.

The results of the internal inspection are equally compelling. Although the liquid level in the tanks could not be dropped completely, in the vapor phase areas where corrosion is usually the worst, there was no evidence of corrosion or coating breakdown whatsoever. In fact, the inspector noted that "the coating looked as bright and shiny as the day it was applied". The only imperfection was found along the rungs of a ladder where a large chain was used to drag a heavy submersible pump up and down. The weight and movement of the chain caused some minor chips in the coating, resulting in a trace of surface rusting.

Lady Luck is always welcome around a casino. But the 1999 inspection proves that it's Madison's polyurethane coatings, not luck, that are going to help the Table Top sequencing batch reactors beat the corrosion odds for many, many years to come.



The Inside of the Table Mountain SBR coated with 16 mils (400 microns) of Madison's **Corrocote Plus**. No evidence of coating breakdown or corrosion whatsoever.



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