

Memorandum for Files

SUBJECT: Site visit to Lock 2 on Arkansas River to observe Wear-Coat

Background:

On 14 AUG 96 I visited Lock No. 2 on the Arkansas River to observe the performance of a test area of Wear-Coat as manufactured by Ciba-Geigy. The product had been applied to the downstream waterline area of Gate #1 about 1 year ago. I was accompanied by Bill Gray (CESWL), Glen Harrison (CESWL) and the applicator of the product who was still at the site painting the remainder of the gates with a VZ-108\V-766 system.

Observations:

Conversation with the applicator indicated they had a lot of trouble applying Wear-Coat. They first attempted to apply it with brushes and rollers. They could only mix a half batch at a time because of the short cure time at 38°C 100°F. Their application required the simultaneous effort of a worker in each of ten bays. They later did some thinning and were able to apply it by airless spray. Thickness ranged from 125-1,100 microns (5-43 mils) with many readings in the 500-750 micron (20-30 mil) range. It was learned that they were having a hard time keeping the white metal blast with the difficult application so they primed the area with VZ-108. The product was hard and only a few minor spots of physical damage were noted. There was no blistering. This area of the dam is probably impacted for only about 3 months of the year. The spillway was above the lower pool at the time of my visit.

Conclusions:

This product blistered when applied self-primed on laboratory panels. Obviously the VZ-108 has helped this problem, but if the objective is to meet restrictive VOC regulations, vinyl should not be used in the system. I question whether the abrasion is really that bad at this site. The product may perform quite well. The district complains that vinyl only lasts about 12 years. They are currently allowing vinyl to be applied by airless contrary to the specification requirements. The contractor mentioned the problem of overspray and close observation revealed a very porous coating due to the dry spray. It would not surprise me if this new system would also only last 12 years.

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