

Mississippi River Bridge Restoration Epoxy Injection

STRUCTURE: IOWA Dot Bridge over Mississippi

LOCATION: Lansing IA

PROJECT DATE: Spring 2002

JOB DURATION: 2 months

CLIENT: IA Dot

CONTRACTOR: Vector Construction Group



PROJECT DESCRIPTION:

Cracks in 5 piers and 2 abutments of the bridge over the Mississippi caused structural concern to the IA Dot. After evaluating the structure it determined that epoxy injection would provide the long lasting repair. Epoxy injection offers a number of advantages including restoring the original structural strength and integrity to the structure while at the same time minimizes corrosion and subsequent weakening of reinforcing steel by encapsulating it against contact with moisture and air. Epoxy injection will also eliminate the problem of serious spalling of concrete initiate by cracking and aggravated by freeze-thaw cycling.

Work was completed off of a combination of barge and swing stages to access the piers in the water. All work had to be completed in such a fashion that it had no effect on the heavy barge traffic on the river and in coordination with the US Coast Guard.



Our patented epoxy injection pump automatically meters the two-part epoxy injection resin, and carries the materials in separate lines to the mix head, where the two components are blended immediately prior to injection. In this way, the injection resin spends its full pot life within the structure being injected, thus assuring of proper penetration. Injection pressure of the pump can be regulated between 0 and 200 psi. This is an important consideration, as too little pressure will result in poor penetration, while excessive pressure could cause additional damage. ChemCo Systems Inc. is one of the only companies that manufactures both epoxy injection resins and injection pumps.



CORPORATE OFFICE

474 Dovercourt Drive
Winnipeg, Manitoba, R3Y 1G4
Ph. (204) 489-6300
Fax (204) 489-6033
Email: vector@vectorgroup.com

REGIONAL OFFICES

Manitoba Winnipeg (204) 489-6300
Ontario (North) Thunder Bay (807) 346-4405
Ontario (South) Stoney Creek (905) 662-4020
Saskatchewan Saskatoon (306) 934-3533
Alberta Spruce Grove (780) 962-6778

North Dakota Fargo (701) 280-9697
Nebraska Sioux City (402) 494-9305
Iowa Cedar Rapids (319) 364-5355