



US Army Corps of  
Engineers  
St. Paul District

## Navigation, Mississippi River, Lock Bulkheads and Slot Installation, Minn/Wisc/Iowa

### Location/Description

Locks 2 through 10 are located on the Mississippi River between Hastings, Minnesota, and Guttenberg, Iowa. The purpose of the lock stoplog and slot installation project is to provide a means for dewatering the lock chambers. Some operation and maintenance efforts require a dry lock chamber to make repairs. Emergency repairs may also require a lock dewatering. Installation of slots in the lock walls and procurement of stoplogs is required to dewater the lock chambers.



Lock Wall Concrete Removal and Dewatering Box, Lock 3

### Status

At Lock 3, a construction contract to cut slots was completed in March 2004.

At Locks 2 and 5, construction contracts to cut slots were completed in March 2005.

At Lock 8, a construction contract to cut slots was completed in March 2006.

At Locks 4 and 9, construction was completed during the winter of 2006/2007.

Design and construction of stoplog slots for Locks 5A, 6, 7, and 10 will be accomplished over the next 4 years. Lock 5A will be started in fall 2007.

The Corps of Engineers has contracted for the fabrication of the required number of stoplogs. Fabrication will occur over multiple years including fiscal years 2005 through 2008. These stoplogs will be used for scheduled maintenance or to respond to an emergency closure. Six stoplogs and one lifting beam were delivered in October 2006. An option for nine additional stoplogs was exercised 31 December 2006. Once all 15 stoplogs are delivered, St. Paul District will have the ability to dewater lock chambers 2 through 10 after slots and sill beams are installed.

### Additional

The existing dam system for dewatering the locks on the Mississippi River can no longer be used because of deteriorated metal and welds and safety concerns. Because these locks cannot be dewatered with the existing system, the only way to dewater for an emergency repair would be to construct temporary earth dams above and below the lock. This type of emergency dewatering would shut down navigation on the river for an indefinite period and have significant negative impacts on the national economy. The current system, which uses steel trusses, cannot be rehabilitated and must be abandoned. New stoplogs and slots to anchor the stoplogs must be constructed before the locks can be dewatered again.

### Authority

The Upper Mississippi River Nine-Foot Channel Navigation Project was authorized as part of the River and Harbor Act approved July 3, 1930.

## **Fiscal**

Program Management (O&M)

Total project cost \$30,700,000

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