

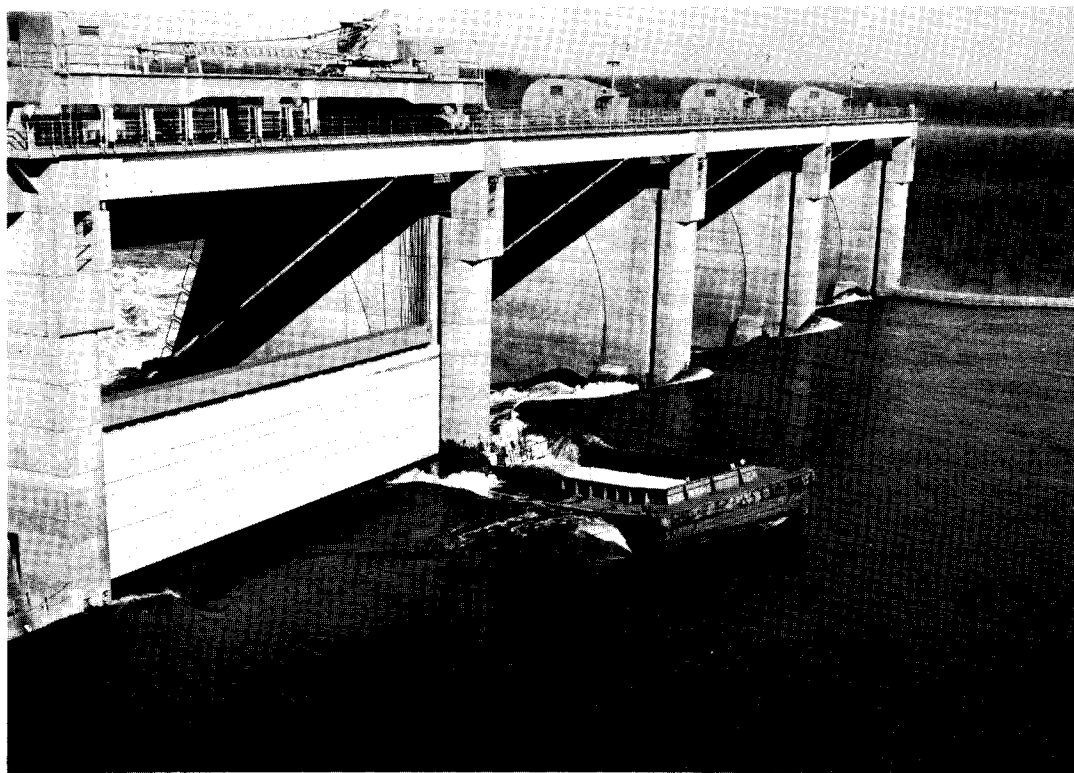
Excerpt from
 The Falls City Engineers –
 A History of the Louisville
 District, Corps of
 Engineers, United States
 Army, 1970 – 1983 by
 Leland R. Johnson (1984)

McAlpine Chlorine Barge, 1972

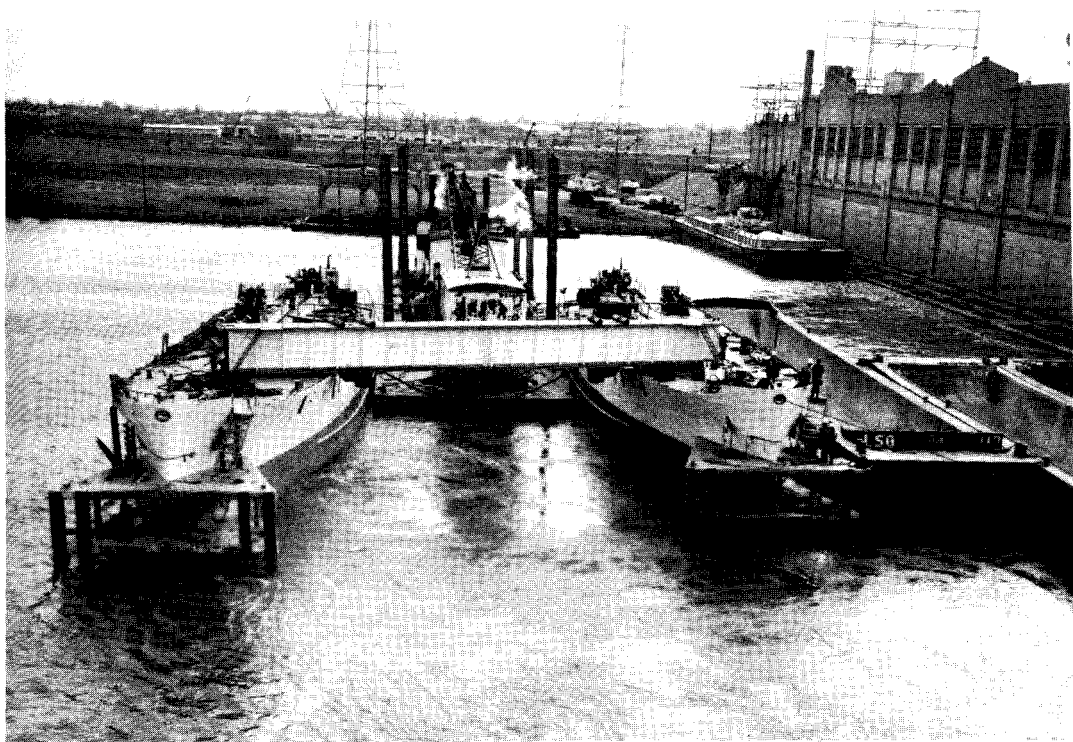
High water on the Ohio during the spring of 1972 sent many runaway barges into the District's dams on the river, capped by the emergency which developed at McAlpine Dam at Louisville. On Sun-

day, March 19, the towboat *J. F. Hunter* struck the island at the head of the canal leading to the locks and lost three barges; one sank near McAlpine Dam, another lodged against the power plant, and a third wrapped itself around a pier in the dam. Aboard the third were four gleaming white steel tanks containing 640 tons of liquid chlorine.⁵

Their Sunday interrupted, Lockmaster Willie Morgan and Jack Bleidt and Leonard Vanzant of the operations division assessed the situation, had the crew from the repair station line onto the barge next to the power plant, and had the District towboat *Person* pull it to safety. The partly submerged barge lodged against the pier and pinned in the gatebay by the rushing



Chlorine barge lodged in a tainter gatebay at McAlpine Dam, Louisville, Kentucky, March 30, 1972.



Captain John Beatty's catamaran and salvage equipment used to secure the chlorine barge at McAlpine Dam, March 1972.

river could not be so easily retrieved, and when it became apparent the barge contained a substance that when released into the air would form a deadly cloud of toxic gas, the District opened its emergency operations center, ordered gasmasks from Fort Knox for use by personnel near the barge, and called the Vicksburg Engineer District for advice because that District had handled a chlorine barge emergency on the Mississippi a few years earlier.⁶

The Engineers, Coast Guard, experts from chemical firms, and marine salvage professionals met to discuss the crisis on March 20 with Rear Admiral O. M. Siler of the Coast Guard, the on-site commander. They considered flushing the barge

through the dam, attempting to pull the barge with towboats back from the pier, or stabilizing it and pumping out the chlorine before moving it. Selecting the third alternative, the group then divided responsibilities, the Louisville District taking charge of salvage operations. The situation worsened when another barge lodged under another gate of the dam, making it inoperative, and the District Engineer requested the Chief of Engineers to have a combat engineer demolition unit placed on standby to blast a hole in the fixed weir of McAlpine Dam if needed to control any rise in the river that might hamper the salvage operation. Needing equipment to stabilize and hold the barge while it was pumped

out, the District contracted with Captain John Beatty of Cincinnati for use of his catamaran rig, made of the hulls of two Navy minesweepers, to slip cables under the barge and pull it up snugly into place.⁷

While the catamaran was on the way to Louisville, at the request of governors of Kentucky and Indiana, the Office of Emergency Preparedness, the President's disaster coordinating agency, authorized application of federal disaster assistance funding to aid in the crisis. It had at first hesitated, for no disaster had occurred; yet, the potential for disaster was real: one tank of the chlorine vented into the air would form a large toxic cloud of gas which the wind could drive directly over Louisville.⁸

Major General William L. Starnes went to McAlpine from the Ohio River Division to be on hand for instant decisions and helped lay plans for the most serious of contingencies. The Pittsburgh Engineer District sent its big derrickboat downstream to assist if needed and four Corps patrol boats were trucked into McAlpine and launched. Through its established contacts with the Army, the District secured gasmasks and trucks with searchlights from Fort Knox, helicopters with gas detection devices from Edgewood Arsenal in Maryland, gasmasks and radios from Lexington Blue Grass Army Depot, and Air Force weather experts to monitor air currents over the barge. An Army hospital train went on standby at New Cumberland Army Depot. Through intensive national media coverage of the crisis, everyone in the Louisville area was alerted to the hazards of the situation, which proved advantageous when evacuation later became necessary.⁹

Plans called for stabilizing the forward end of the barge with cables anchored into the dam piers and by closing the tainter gate of the dam down atop the barge. At

risk of life, Louisville Repair Station workmen jumped onto the quivering barge and attached cables to tie it to the dam. They built falsework (crickets) and placed it atop the barge to catch the lower edge of the tainter gate when it descended and also built guards around the domes atop each steel tank. When Captain Beatty maneuvered his workbarges and catamaran rig into place on March 31, the critical period began.¹⁰

Mayor Frank Burke of Louisville decided to evacuate Portland, the section of Louisville nearest the dam, during the critical period, and 4,266 residents moved out on April 1 without incident, a few going to refugee shelters but most lodging temporarily with friends and relatives. Evacuation remained voluntary on the Indiana bank and about half the residents left New Albany, Clarksville, and Jeffersonville.¹¹

On April 1, river traffic near McAlpine ceased and the tainter gate was closed down onto the crickets built atop the barge and secured. Easter Sunday morning, April 2, Captain Beatty eased his catamaran rig downstream to slip cables under the barge while many people watched the events on television from a camera atop the hydroelectric power plant. Chaplains from Fort Knox conducted Easter services at the dam for the Engineers and other personnel in emergency service. The catamaran inched down into place by 9:17 and its winches began slowly rotating, taking up slack in the cables strung under the barge. In minutes that seemed hours to everyone watching, the cables came up beneath the barge, and at 10:56 the cables at last had the barge snugly under control.¹²

The critical period over, people began returning to their homes and Corps personnel jumped back onto the barge to attach pipes to pump the chlorine from the barge

to an empty barge alongside. After two days of pumping, the barge was emptied and removed from the gatebay. Potential disaster had been averted and among the sixty Corps personnel who rigged the cables and pipes, performing the hazardous physical work atop and around the barge, there was not a single injury, not even a mashed thumb.¹³

Litigation concerning legal responsibility for the emergency began and continued some six years afterwards, and Congress enacted a Ports and Waterways Safety Act in 1972, assigning the U. S. Coast Guard additional powers to curtail hazards on American waterways, including creation of a traffic control system for the port of Louisville. In a letter written a week after the successful end of the crisis, Louisville Mayor Frank W. Burke paid tribute to the emergency response of the District:

The people of Louisville and surrounding areas recognize the heroism and excellence of your work. On behalf of everyone involved, may I say congratulations and thank you for a job well done.¹⁴