

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)

#### *Operation BIG STINK, 1974*

An operational emergency similar to that of 1972 at McAlpine Dam occurred at Markland Dam on January 15, 1974, when the towboat *Bessie Walker* lost its barge tow and four barges lodged against the dam. Three barges pinned by the current against piers 10 and 11 were the chief concern: one carried salt, another fuel oil, and the third had aboard cylinders of valeraldehyde and propionaldehyde, which were toxic and flammable chemicals used for the preservation of grain and manufacture of synthetic rubber. The latter barge leaked toxic fumes and seemed about to sink.<sup>15</sup>

When Lockmaster Howard Gibson reported the accident, Colonel Charles J.

Fiala and his staff went immediately to Markland and opened an emergency office. They learned fumes from the leaking barge were not a threat to life on the order of liquid chlorine—but the smell! A chemical professor described the odor in the most technical manner possible as “closely related to stink bombs, somewhere in between the odor of rancid butter and dirty socks.” The countryside for miles around Markland Dam was affected, and there were voluntary evacuations. One of the earliest actions of the District Engineer was to obtain gasmasks and oxygen air packs for workmen at the dam. The major concern, however, was not the smell or toxic effects of the fumes but fire because the chemicals were highly flammable, and the leaking barge was lodged against a barge full of fuel oil.<sup>16</sup>

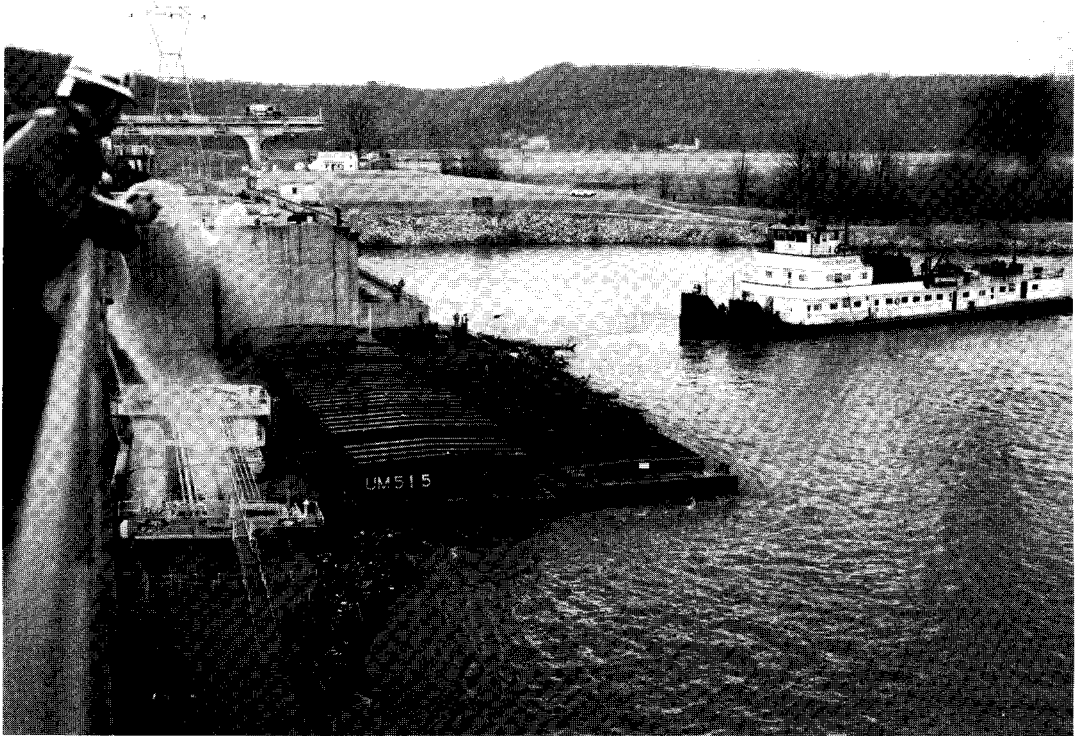
Troubleshooters from the Louisville Repair Station arrived that night, and during the night drift accumulated against the barge and it sank another foot at its stern. In the morning, Corps diver James “Flipper” Pierce and others jumped aboard the barge to inspect the damages and lash it with nonsparking nylon cables to other barges and to the wall of the nearby powerhouse. “The smell was something like a stinkbug,” commented Pierce after leaving the barge.<sup>17</sup>

“A very, very touchy salvage problem,” said Colonel Fiala, noting the combination of flammable chemicals leaking into the air, the presence of the fuel oil barge, the rough and flooding river, and the high winds. Deciding the emergency demanded that the Corps remove the barges as quickly as possible, the Colonel awarded a contract to American Commercial Barge Line, which had the powerful towboat *Dell Butcher* in the vicinity, to undertake the delicate task of pulling the barges away from the dam.<sup>18</sup>

The tainter gates of the dam were manipulated to modify flow patterns through the dam and obtain the quietest water possible in the vicinity of the barges; there, the recently installed remote controls for operating the gates paid dividends, for they could be moved without the operators walking along the bridge over the dam and thereby suffering exposure to hazards and smells. Captain N. "Sonny" Ivey took control of the big *Dell Butcher* on the afternoon of the 16th and maneuvered it into position at 4:00 p.m., while the local fire department soaked the barge down with a continuous stream to reduce the potential for flash fire.<sup>19</sup>

With little margin for error, Ivey deft-

ly nosed the *Dell Butcher* down to the barges where the repair station crew secured them to the bow of the towboat. He then reversed the powerful engine, gave it full rudder, and swung the barges with a feather touch away from the dam, grazing the dam with the towboat fenders but holding the barges out. Once away from the cramped maneuvering area, he straightened the barges and took them upstream, leaving only their stink behind at the dam. Within two hours, lockage resumed at Markland and the emergency ended. A. John Columbo, chief of the Louisville Repair Station, said of his workmen who had performed the hazardous work atop the barges: "These are the men who go



Towboat *Dell Butcher* prepares to remove barges lodged against Markland Dam while streams of water spray on the sinking chemical barge. January 16, 1974.

right in there and do what they have to un-  
til it's done. They have never turned down  
a job.''<sup>20</sup>