

Section 384.103 Finding

To: Bill Stowe, CEO and General Manager



Project: Emergency Brine Tank Repairs

Rehabilitation of the brine tank at the Fleur Drive Water Treatment Plant was identified as a 2019 project via the budgeting process. The brine tank is an integral component of the nitrate removal process. The tank holds saturated brine which is the primary regenerative solution for the ion exchange resin held within the eight ion exchange vessels. There was clear evidence that the liner, within the tank, had failed and there were concerns that such leakage could compromise the structural integrity of the concrete tank walls. A budget in excess of \$400,000 was made part of the overall 2019 budget to address liner and concrete concerns.

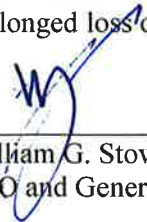
Water Production and Engineering personnel worked collectively early in 2019 to empty and inspect the brine tank. Engineering personnel determined the issues with the liner and concrete were less significant than originally forecast during the budgeting process. A corrective solution for both the liner and concrete issues, from Western Specialty Contractors, was found for a proposed amount of \$55,300. During the week of February 11th, Western prepared a mock-up of the lining repair for review by DMWW Engineering personnel and communicated an estimated time to complete work at near 3 weeks.

DMWW elected to forego the normally required competitive quotation process based on several factors; the nitrate removal process is fully disabled when the brine tank is empty; the current nitrate concentrations in river sources were in excess of 5 parts per million and at risk to rise to near 10 parts per million within the next month; the cost to fill and subsequently empty the brine tank would exceed \$50,000 in future expenses; and the minimum 1-week delay associated with obtaining an additional quotation and mock-up demonstration would eliminate a window of opportunity to complete the work before mid-March 2019. Staff signed the proposal from Western Specialty Contractors and issued a purchase order in the amount of \$55,300 on February 15th. Personnel from Western arrived on-site on February 18th to begin rehabilitation work.

Based on the foregoing, I certify that emergency repair of the brine tank was necessary.

	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.	
		<u>2/19/2019</u>
	Michael J. McCurnin, P.E. Des Moines Water Works	Date
	License Number:	13836
	My license renewal date is:	December 31, 2020
Pages or sheets covered by this seal:	All	

Based on the above certification, I find that the emergency repair of the brine tank was necessary to avoid prolonged loss or injury to the utility.


 William G. Stowe
 CEO and General Manager

2.20.19
 (date)