

		Group 5											
Risk Assessment of the Chlorine Dioxide Storage System													
What-If	Cause	Consequences	Consequence Category	Mitigation(CME/KME)	Initial Risk			Recommendations	Estimated Residual Risk			Comments	
					C	P	RL		C	P	RL		
Pump Suction Line From a tank is leaking	Tool strikes line	A small amount of ClO2 is released into the atmosphere, which can reach up to 200 m downwind	Human injury and possible illness at facility / Enviromental impairment / Property Damage	Dyke	1	2	B	Work permit for moving over area, sensors and alarms, pipe sealing job	1	2	A	There are many deficiencies with the presented unit, many additions must be made to make process more safe	
Pump Suction line from a tank is fully breach	Falling object	Huge release of ClO2 gas, a toxic gas, into the area. Based on the model, it can reach up to 1.8 Km downwind	Human injury and possible illness at facility / Enviromental impairment / Property Damage	Dyke	5	5	E	Work permit for moving over area , sensors and alarms , Automated valve system, replace pump suction	3	3	C	Since ClO2 is a toxic gas, it is best for us to replace the pump suction because we need to make sure that there is no more leaked after the damage is fixed. However, this will take a long period of time, therefore decreasing its effectiveness.	