

TABLE A.1

Summary Sheet for Continuing Example 1a: Risk Matrix Consequence Categorization Method (Method 1 of Chapter 3)

Scenario Number	Equipment Number	Scenario Title: Hexane Surge Tank Overflow. Spill not contained by the dike	
Date:	Description	Probability	Frequency (per year)
Consequence Description/Category	Release of hexane (1,000–10,000 lb) outside the dike due to tank overflow and failure of dike Severity Category 4		
Risk Tolerance Criteria (Category or Frequency)	Action required Tolerable		$>1 \times 10^{-3}$ $<1 \times 10^{-5}$
Initiating Event (typically a frequency)	Loop failure of BPCS LIC. (PFD from Table 5.1)		1×10^{-1}
Enabling Event or Condition		–	
Conditional Modifiers (if applicable)	Probability of ignition	N/A	
	Probability of personnel in affected area	N/A	
	Probability of fatal injury	N/A	
	Others	N/A	
Frequency of Unmitigated Consequence			1×10^{-1}
Independent Protection Layers	Dike (existing) (PFD from Table 6.3)	1×10^{-2}	
	SIF (to be added – see Actions)	1×10^{-2}	
Safeguards(non-IPLs)	Human action not an IPL as it depends upon BPCS generated alarms. Cannot be used as BPCS failure is initiating event (Approach A)		
Total PFD for all IPLs		1×10^{-4}	
Frequency of Mitigated Consequence			1×10^{-5}
Risk Tolerance Criteria Met? (Yes/No): Yes, with added SIF.			
Actions Required to Meet Risk Tolerance Criteria	Add SIF with PFD of 1×10^{-2} . Responsible Group/Person; Plant Technical/ J. Doe June 2002 Maintain dike as an IPL (Inspection, maintenance, etc.)		
Notes	Add action items to action tracking database.		
References (links to originating hazard review, PFD, P&ID, etc.):			
LOPA analyst (and team members, if applicable):			