

TABLE A.8
Summary Table for Continuing Example 2b: Fatality Frequency Method
(Method 1 of Chapter 3)

Scenario Number	Equipment Number	Scenario Title: Hexane Storage Tank Overflow. Spill contained by the dike	
2b			
Date:	Description	Probability	Frequency (per year)
Consequence Description/Category	Release of hexane inside the dike due to tank overflow with potential for ignition and fatality.		
Risk Tolerance Criteria (Category or Frequency)	Maximum Tolerable Risk of a Serious Fire Maximum Tolerable Risk of a Fatal Injury		<1 × 10 ⁻⁴ <1 × 10 ⁻⁵
Initiating Event (typically a frequency)	Arrival of tank truck with insufficient room in the tank due to failure of the inventory control system. Frequency based upon plant data.		1
Enabling Event or Condition		N/A	
Conditional Modifiers (if applicable)	Probability of ignition	0.1	
	Probability of personnel in affected area	0.1	
	Probability of fatal injury	0.5	
	Others	N/A	
Frequency of Unmitigated Consequence			5 × 10⁻³
Independent Protection Layers	Operator checks level before unloading (existing) (PFD from Table 6.5)	1 × 10 ⁻¹	
	SIF (to be added – see Actions)	1 × 10 ⁻²	
Safeguards(non-IPLs)	BPCS level control and alarm is not an IPL as it is part of the BPCS system already credited in LI read by operator.		
Total PFD for all IPLs		1 × 10⁻³	
Frequency of Mitigated Consequence			5 × 10⁻⁶
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 emphasis on procedure to check level as a critical action.		
Notes	Human action at 1 × 10 ⁻¹ since BPCS level indication is part of this IPL. Add action items to action tracking database.		
References (links to originating hazard review, PFD, P&ID, etc.):			
LOPA analyst (and team members, if applicable):			