

Table 1 - Suggested scenarios from basic parameter input for RAST BP Texas City Case Study

Version		Equipment Loaded		< Equipment Table		LOPA Worksheet >		Step 7				
2.0		Rafinate Splitter		Sort	Reset Filters	Create User Scenario	Modify User Scenario	Duplicate Scenario				
S C E N A R I O	Cross Ref	Scenario Type	Initiating Event General Description	Loss Event	Outcome	Outcome Descriptors	Consequence	Tolerable Frequency	Factor	Gap in Layers of Protection	Worst Case Scenario for Further Analysis	
	3.01		Drain or Vent Valve Open	Human Failure Action once per quarter or less	Drain or Vent Leak	Chemical Exposure	of a high/low temperature chemical	Severity Level-3	4	2	High TF & IPL	
7.01		Excessive Heat Input - Pool Fire Exposure	IEF=3 as determined by Process Safety	Equipment Rupture at Fire Conditions	Flash Fire or Fireball	at a Distance to Severe Flammable Impact (0.5 LFL, BLEVE, or Dust Fireball) of 194 m	Severity Level-5	6	3	High TF & IPL		
5.01		Excessive Heat Input - Pool Fire Exposure	IEF=3 as determined by Process Safety	Vapor Relief Vent - Fire	Vapor Cloud Explosion	impacting on site personnel at a Explosion Distance to 1 psi Overpressure of 226 m including Explosion Overpressure at Low Strength Occupied Bldg 1 (psi) of 1.2 psi	Severity Level-5	6	3	High TF & IPL		
16.01		Mechanical Integrity Failure - Extremely Large	IEF=4 as determined by Process Safety	Extremely Large Hole Size Leak	Vapor Cloud Explosion	impacting on site personnel at a Explosion Distance to 1 psi Overpressure of 327 m including Explosion Overpressure at Low Strength Occupied Bldg 1 (psi) of 3 psi	Severity Level-5	6	2	High TF & IPL		
17.01		Mechanical Integrity Failure - Very Large	IEF=4 as determined by Process Safety	Very Large Hole Size Leak	Flash Fire or Fireball	at a Distance to Severe Flammable Impact (0.5 LFL, BLEVE, or Dust Fireball) of 169 m	Severity Level-4	5	1	High TF & IPL		
18.01		Mechanical Integrity Failure - Very Large	IEF=4 as determined by Process Safety	Very Large Hole Size Leak	Vapor Cloud Explosion	impacting on site personnel at a Explosion Distance to 1 psi Overpressure of 184 m including Explosion Overpressure at Low Strength Occupied Bldg 1 (psi) of 0.9 psi	Severity Level-4	5	1	High TF & IPL		