

										LIKELYHOOD		
								1	2	3	4	5
		New Risk Ass	sessment as per B	G-ST-HSSE-HSSE	-00001		Financial / Reputation	Never heard of in the Industry	Heard of in the Industry	Has happened in BG Group, or more than once per year in the Industry	Has happened in the Asset, or more than once per year in BG Group	Has happened at the facility, or more than once per year in the Asset
		Management	System Frame Wo	ork			People	Less than 1 in 1 million chance per annum	Greater than 1 in 1,000 chance per annum	Between 1 in 100,000 and 1 in 1 million chance per annum	Between 1 in 10,000 and 1 in 100,000 chance per annum	Between 1 in 1,000 and 1 in 10,000 chance per annum
		P	eople	Financial	Reput	ation	ď	< 10-6 per year	10-6 < x < 10-5 per year	10-5 < x < 10-4 per year	10-4 < x < 10-3 per year	>10-3 per year
		Workers	Public	Asset	Environment	License to Operate / social impact		Highly Unlikely	Unlikely	Possible	Likely	Highly Likely
	5	Multiple Fatalities 5> Numerous site injuries.	Single fatality. >50 persons require medical treatment Some serious injuries	Extensive damage (>\$1 billion)	LT and possibly irreversible damage; greater than 90% ecosystem or habitat impacted; ecosystem or habitat viability severely threatened, recovery, if at all, will take longer than 10 years once impact halted	Long-lasting public and industry outrage globally or in multiple strategic markets. Threat of loss of global License to Operate. Existing JV partners seek exit. Suppliers reluctant to enter contracts.	Very High					
SEVERITY (Consequence)	4	Single or few fatalities <5	>10 persons require medical treatment. Some serious injuries	Major damage (>\$100m - \$1 billion)	Measurable impact upon ecosystem or habitat; 30 - 90% of ecosystem or habitat impacted; viability threatened, although recovery anticipated within 3 to 10 years once impact halted	Long-lasting public / investor outrage but limited to single core market. Loss of License to Operate in core asset. Difficult to form new JVs.	High					
SEVERITY ((3	Multiple lost time incidents or permanent disability	<10 persons require medical treatment. No serious injuries.	Localised damage (\$10m - \$100m)	Measurable impact upon ecosystem or habitat although viability not affected; 5 - 30% of ecosystem or habitat impacted in a significant way; recovery in 1 to 2 years once impact halted	Public outrage in non- core market or narrow- interest group protests in major market. Damage to existing relationships, core JV partners and suppliers. Regulatory action including prosecution.	Moderate					
	2	Single lost time incident (LTI)	Short term, minor effects. No medical treatment cases	Minor damage (\$1m - \$10m)	Measurable impact upon ecosystem or habitat although viability not impacted; 1 - 5% of ecosystem or habitat impacted; recovery less than 1 year.	Narrow-interest group protests in non-major market. Damage to existing relationships with non-major partners and suppliers. Regulatory action not resulting in prosecution)	Low					

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Between 1 in 1,000

and 1 in 10,000

chance per annum



1	Minor Injury, first aid medical treatment or restricted workday case	Nuisance to off-site public	Slight damage (<\$1m) <1barrel	Ecosystem or habitat disturbance or alteration within natural variability; less than 1% of ecosystem or habitat impacted; recovery less than 6 months.	Isolated and uncoordinated local complaints. Minor damage to existing relationships with partners and suppliers	Very Low					
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Less than 1 in 1

million chance per

annum

Hazard Risk Assessment value returned during risk assessment. Example: Initial selection of Severity Environment 4 = E4, Likelihood Likely = D Residual selection of Severity Environment 4 = E4, Likelihood Unlikely = B Note: as per current design the user will not be able to select a different Severity and/or a higher likelihood.

2 3 4 5 Has happened in the Has happened at the Has happened in BG Never heard of in the Heard of in the Group, or more than once per year in the Asset, or more than once per year in BG facility, or more than once per year in the Industry Industry Industry Group Asset Between 1 in

100,000 and 1 in 1

million chance per

annum

Between 1 in 10,000

and 1 in 100,000

chance per annum

Greater than 1 in

1,000 chance per

annum

LIKELYHOOD

			People		Financial	Repu	Reputation		< 10-6 per year	10-6 < x < 10-5 per year	10-5 < x < 10-4 per year	10-4 < x < 10-3 per year	>10-3 per year
			Workers	Public	Asset	Environment	License to Operate / social impact		Highly Unlikely	Unlikely	Possible	Likely	Highly Likely
SEVERITY (Consequence)	ence)	5	P5	P5	A5	E 5	R5	Very High	A	В	С	D	E
	ERITY (Consequ	4	P4	P4	A4	E4	R4	High	A	В	С	D	E
	SEV	3	P3	P3	A3	E3	R3	Moderate	А	В	С	D	E

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2	P2	P2	A2	E2	R2	Low	Α	В	С	D	E
1	P1	P1	A1	E1	R1	Very Low	A	В	С	D	ш

Hazard Risk Assessment scores Example:

Initial selection of Severity (Environment 4 = E4, Likelihood Likely = D) Score = 16
Residual selection of Severity (Environment 4 = E4, Likelihood Unlikely = B) = 8
Note: Although there may be multiple hazards identified with different scores it is the highest initial and residual that is returned to the barrier model.

			LIKELYHOOD		
	1	2	3	4	5
Financial / Reputation	Never heard of in the Industry	Heard of in the Industry	Has happened in BG Group, or more than once per year in the Industry	Has happened in the Asset, or more than once per year in BG Group	Has happened at the facility, or more than once per year in the Asset
People	Less than 1 in 1 million chance per annum	Greater than 1 in 1,000 chance per annum	Between 1 in 100,000 and 1 in 1 million chance per annum	Between 1 in 10,000 and 1 in 100,000 chance per annum	Between 1 in 1,000 and 1 in 10,000 chance per annum
Pe	< 10-6 per year	10-6 < x < 10-5 per year	10-5 < x < 10-4 per year	10-4 < x < 10-3 per year	>10-3 per year
	Highly Unlikely	Unlikely	Possible	Likely	Highly Likely
gh					

		Pe	People		Reputation		_	< 10-6 per year	10-6 < x < 10-5 per year	10-5 < x < 10-4 per year	10-4 < x < 10-3 per year	>10-3 per year
		Workers	Public	Asset	Environment	License to Operate / social impact		Highly Unlikely	Unlikely	Possible	Likely	Highly Likely
(Consequence)	5	P5	P5	A5	E5	R5	Very High	5	10	15	20	25
SEVERITY (4	P4	P4	A4	E4	R4	High	4	8	12	16	20

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3	P3	P3	A3	E3	R3	Moderate	3	6	9	12	15
2	P2	P2	A2	E2	R2	Low	2	4	6	8	10
1	P1	P1	A1	E1	R1	Very Low	1	2	3	4	5

Hazard Risk Assessment ALARP value returned during risk assessment.

Example:

Initial selection of Severity Environment 4 = E4, Likelihood Likely = D
Residual selection of Severity (Environment 4 = E4, Likelihood Unlikely = B) ALARP 10 -5
Note: ALARP is based on the Residual risk value (mitigated risk) see templates for example of layout.

	1	2	3	4	5							
Financial / Reputation	Never heard of in the Industry	Heard of in the Industry	Has happened in BG Group, or more than once per year in the Industry	Has happened in the Asset, or more than once per year in BG Group	Has happened at the facility, or more than once per year in the Asset							
People	Less than 1 in 1 million chance per annum	Greater than 1 in 1,000 chance per annum	Between 1 in 100,000 and 1 in 1 million chance per annum	Between 1 in 10,000 and 1 in 100,000 chance per annum	Between 1 in 1,000 and 1 in 10,000 chance per annum							
Pe	< 10-6 per year	10-6 < x < 10-5 per year	10-5 < x < 10-4 per year	10-4 < x < 10-3 per year	>10-3 per year							
	Highly Unlikely	Unlikely	Possible	Likely	Highly Likely							
ligh												

LIKELYHOOD

	People		Financial	Reputation		Pec	< 10-6 per year	10-6 < x < 10-5 per year	10-5 < x < 10-4 per year	10-4 < x < 10-3 per year	>10-3 per year
	Workers	Public	Asset	Environment	License to Operate / social impact		Highly Unlikely	Unlikely	Possible	Likely	Highly Likely
5	P5	P5	A5	E5	R5	Very High	10 -6	10 -5	10 -4	10 -3	10 -2

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4	P4	P4	A4	E4	R4	High	10 -6	10 -5	10 -4	10 -3	10 -3
3	P3	P3	A3	E3	R3	Moderate	10 -6	10 -5	10 -4	10 -4	10 -3
2	P2	P2	A2	E2	R2	Low	10 -7	10 -6	10 -5	10 -4	10 -3
1	P1	P1	A1	E1	R1	Very Low	10 -7	10 -6	10 -5	10 -5	10 -4

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