

Assumption of QRA modeling for Aberdeen Site (Total 1 page)

Item no.	Item	Parameter	Value	Unit	Ref
Aberdeen HKCG Depot					
1	Gas holder	Capacity / inventory in QRA model (weight) (operation mode - approx. 48 days in a year; Normal mode – the rest of time)	17.7 (operation mode) 3 (normal)	ton	HKCG
2		Pressure (max)	4	kPa	Estimated based on data from HKCG
3	Inlet pipeline to gas holder	Diameter	600	mm	HKCG
4		Pressure (max)	4	kPa	Estimated based on data from HKCG
5		Length	20	m	Estimated from drawings from HKCG
6	Outlet pipeline from gas holder	Diameter	600	mm	HKCG
7		Pressure (max)	4	kPa	Estimated based on data from HKCG
8		Length	20	m	Estimated from drawings from HKCG
9	Onsite population	Max. number of personnel from HKCG (daytime only and staying at site temporary)	24	persons	HKCG
10		Max. number of personnel from HKCG (for major maintenance activities and staying at site temporary)	10	persons	HKCG
11		Number of vehicle movements per day (for QRA model)	10	movements	Estimated

Assumption of QRA modeling for Ap Lei Chau Site (Total 2 pages)

Item no.	Item	Parameter	Value	Unit	Ref
Ap Lei Chau Shell Depot					
1	LPG Compound	No. of LPG vessels (mounded)	2	units	Shell
2		Capacity per vessel	20	ton	Shell
3		Max. inventory	34 (85% total capacity)	ton	Shell
4		Pressure – liquid phase (for QRA model)	400 (saturated liquid)	kPa	Calculated
5		Pressure – gas phase (for QRA model)	7.5	kPa	Calculated
6		Pipe diameter for liquid filling line	32	mm	Shell
7		Pipe diameter for liquid line	80	mm	Shell
8		Pipe diameter for vapor line	50	mm	Shell
9		Pipe diameter for liquid supply line to and gas outlet line from vaporizer	50	mm	Shell
10		Pipe diameter for gas supply line to South Horizons	150	mm	Shell
11		Pipe diameter for vapor line	50	mm	Shell
12		Pipe diameter for flexible hose	32	mm	Shell
13		Average daily consumption	7	ton	Shell
14		Minimum stock	28	ton	Shell
15		Replenishment frequency	6	times per week	
16		Duration for unloading process	2	hours	Shell
17		No. of vaporizers	7 (5 for hot water type; 2 for coil-heated type)	units	Shell
18		Length of coil per vaporizer	8	m	Estimated

Item no.	Item	Parameter	Value	Unit	Ref
19	LPG Cylinder Store	Max. number of LPG cylinders	2000	cylinders	Shell
20		49-kg LPG cylinder (empty weight)	30	kg	Estimated
21		49-kg LPG cylinder (volume)	0.1	m ³	Calculated

Daily Utilisation of Ferry Service at the Shell Depot

(estimated based on data between 1st and 27th Sept 2007 provided by Shell)

Vehicle Type	Arrival	Departure
LPG Road Tanker	2 (loaded)	2 (empty)
LPG Cylinder Wagon	2 (loaded)	2 (empty)