

	<h1>FLARE SYSTEM</h1> <h2>용량 검토서</h2>	
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[Table #1-1: 안전밸브 배출량 검토 결과]

ITEM NO.	LOCATION	FLUID	FIRE	POWER FAILURE	COOLING WATER FAILURE	CONTROL VALVE FAILURE	OTHERS	FIRE ZONE
			kg/h	kg/h	kg/h	kg/h	kg/h	
SV 0011A/B	Off-gas Header					4,742		
SV 2301A/B	D1202					7,030		
SV 2303A/B	E1203 Process side					7,322		
SV 3001	F1300					101,000		
SV 3002A/B	D1300					7,655		
SV 3003A/B	F1303		627					SV Fire Zone-4
SV 3101A/B	F1301				6,000	48,213		
SV 3102A/B	D1303					709		
SV 3103A/B	F1302						37	
SV 3201A/B	E1301				49,000			
SV 3300A/B	E1302 Process side		2,797				4,800	SV Fire Zone-1
SV 3301A/B	D1302		43,513					SV Fire Zone-1
SV 3401A/B	T1302						66	
SV 3402A/B	D1304						66	
SV 3501A/B (1)	C1301 1st stage						10,087	
SV 3502A/B (1)	C1301 2nd stage						10,087	
SV 3503A/B (1)	C1301 Distance Piece						617	
SV 3902A/B (1)	Z1305					74		
SV 4001A/B	R1401					59,419		
SV 4002A/B	Piping					106		
SV 4301A/B	T1401				3,761		8,426	

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ITEM NO.	LOCATION	FLUID	FIRE	POWER FAILURE	COOLING WATER FAILURE	CONTROL VALVE FAILURE	OTHERS	FIRE ZONE
			kg/h	kg/h	kg/h	kg/h	kg/h	
SV 5002A/B	Piping		1,941		4,016			SV Fire Zone-4
SV 5101A/B (1)	D1503		1,200					SV Fire Zone-5
SV 5105A/B	D1510		4,354					SV Fire Zone-5
SV 6001A/B	D1601			51,000				
SV 6161A/B (1)	D1614A						18,992	
SV 6171A/B (1)	D1614B						18,992	
SV 6180A/B (1)	E1601		1,984					SV Fire Zone-2
SV 6181A/B (1)	D1615		7,478					SV Fire Zone-2
SV 6182A/B (1)	D1613		7,473					SV Fire Zone-2
SV 6502A/B	D1607		748					SV Fire Zone-6
SV 7001 (1)	C1709A						34	
SV 7002 (1)	C1709B						34	
SV 7101A/B	T1701		4,318		23,824			SV Fire Zone-6
SV 7102A/B	E1704		7,577					SV Fire Zone-6
SV 7201A/B (1)	T1703A		24,928					SV Fire Zone-1
SV 7202A/B (1)	T1703B		24,928					SV Fire Zone-1
SV 7203A/B (1)	C1701		120					SV Fire Zone-1
SV 7204A/B (1)	F1703		312				1,050	SV Fire Zone-1
SV 7205A/B (1)	E1707		1,489					SV Fire Zone-1
SV 7301A/B (1)	T1706		17,836					SV Fire Zone-1
SV 7302A/B	F1701		5,596					SV Fire Zone-1

	FLARE SYSTEM	
	용량 검토서	

ITEM NO.	LOCATION	FLUID	FIRE	POWER FAILURE	COOLING WATER FAILURE	CONTROL VALVE FAILURE	OTHERS	FIRE ZONE
			kg/h	kg/h	kg/h	kg/h	kg/h	
SV 7401A/B (1)	C1704						2,100	
SV 7501A/B (1)	T1704		2,538					SV Fire Zone-1
SV 7601A/B (1)	T1712A		2,496					SV Fire Zone-1
SV 7602A/B (1)	T1712B		2,496					SV Fire Zone-1
SV 7606A/B (1)	C1710		50					SV Fire Zone-1
SV 7607A/B (1)	F1711		127				230	SV Fire Zone-1
SV 7608/7609	F1702A/B		356					SV Fire Zone-1
Maximum Relief Rate (kg/h)	SV Fire Zone-1	129,582	51,000	86,601	101,000	18,992	SV Fire Zone-1	
	SV Fire Zone-2	16,935					SV Fire Zone-2	
	SV Fire Zone-3	51000 (2)					SV Fire Zone-3	
	SV Fire Zone-4	2,568					SV Fire Zone-4	
	SV Fire Zone-5	5,554					SV Fire Zone-5	
	SV Fire Zone-6	12,643					SV Fire Zone-6	
* HC : Hydrocarbons, * TBD : To be developed								

3 안전 밸브 배출량 검토결과

Fire case, Power failure case, Cooling water failure case 를 제외한 안전밸브 분출 Case 는
 동시 다발적으로 발생하지 않으며, Fire Case 의 경우 Fire Zone 에 의한 Zone 별 합산
 량으로 최대 용량을 검토하였다. 위 검토에 따르면 안전 밸브의 압력 상승 요인 중 가장 큰
 배출량은 129,582 kg/h (SV Fire Zone-1)이다.