

SAMPLE EXAMPLE FOR PUBLIC MEETING ON 3/21/12 ON TRANSIENT AND HOT WORK FIRE FREQUENCIES AND USE OF ASSOCIATED INFLUENCE FACTORS

Frequency Bin 7: Transient fires from control/aux/reactor buildings

Frequency of Bin 7 = $3.9\text{E-}3$

Assume 50 PAUs assigned to Bin 7 location, control/aux/reactor buildings

Guidance for table 6-3 in 6850:

- The most common influence factor rating is a 3, per the descriptions in 6850.
- The influence factor rating should be applied according to the frequency bin; consequence is that you would expect to have a range of influence factors for the control, reactor, auxiliary (CAR) buildings and a range of influence factors for the turbine building. Should not compare the CAR buildings to the turbine building. Expect 10s and perhaps 50s for each bin.

Case 1:

- Rating for CSR: 1 for maintenance, 1 for storage, 1 for occupancy
- Rating for all other 49 PAUs: 3 for maintenance, 3 for storage, 3 for occupancy
- Results: CSR transient fire frequency = $2.6\text{E-}5$; For per PAU for all other PAUs = $7.9\text{E-}5$

# of PAUs	Maint Factor	Occup Factor	Storage Factor	Overall factor	Transient Fire Freq	Area Factor	Man Supp	CCDP	Fire CDF per PAU
CSR	1	1	1	$6.7\text{E-}3$	$2.6\text{E-}5$	0.1	0.5	0.1	$1.3\text{E-}7$
49	3	3	3	$2.0\text{E-}2$	$7.9\text{E-}5$	0.1	0.5	0.1 to 0.001	$4\text{E-}7$ to $4\text{E-}9$

Case 2:

- Rating for CSR = 1 for maintenance, 1 for storage, 1 for occupancy
- Rating for 3 other PAUs: 3 for maintenance, 1 for storage, 1 for occupancy
- Rating for 40 PAUs: 3 for maintenance, 3 for storage, 3 for occupancy
- Rating for 4 PAUs: 10 for maintenance, 3 for storage, 3 for occupancy
- Rating for 2 PAUs: 50 for maintenance, 3 for storage, 3 for occupancy

# of PAUs	Maint Factor	Occup Factor	Storage Factor	Overall factor	Transient Fire Freq	Area Factor	Man Supp	CCDP	Fire CDF per PAU
CSR	1	1	1	5.4E-3	2.1E-5	0.1	0.5	0.1	1.1E-7
3	3	1	1	9.0E-3	3.5E-5	0.1	0.5	0.1 to 0.001	1.8E-7 to 1.8E-9
40	3	3	3	1.6E-2	6.2E-5	0.1	0.5	0.1 to 0.001	3.1E-7 to 3.1E-9
4	10	3	3	2.8E-2	1.1E-4	0.1	0.5	0.1 to 0.001	5.5E-7 to 5.5E-9
2	50	3	3	1.0E-1	3.9E-4	0.1	0.5	0.1 to 0.001	2.0E-6 to 2.0E-8