

Orange County Fire Authority (OCFA)
Guidance Document
for
Risk Assessment (RA) / HazOp Study / Seismic Analysis (SA)

The following is general guidance regarding recommendations and findings from various types of hazard assessments for facilities in OCFA jurisdiction. The risk matrix on the next page should be used to categorize risks according to the probability and consequence. Probability decreases from A, B, C, to E. Consequences decrease from I, II, III, to IV. The risk category is determined from the table, once the probability and consequences are assigned. Risk category I is highest. Each owner/operator must work closely with OCFA prior to beginning these assessments.

I. All recommendations and findings from assessments need to be addressed which have a High, Medium, or Low priority risk, consistent with risk category 1, 2, or 3 on the following table. Risk category 4 is not a hazard and has virtually no impact, and does not need to be mitigated or resolved. The attached risk matrix is used for all recommendations and findings. OCFA may ask for a re-evaluation or more details, after the assessment is completed. The continued operation of any assessed risk needs to be signed off with the appropriate facility management and/or OCFA. A draft report is due within 10 days of the (HazOp/RA/SA) teams conclusion and a final (HazOp/RA/SA) report is due within 4 weeks of the study. The final report needs to have completion dates w/ responsible persons, and action plan for all recommendations. The HazOp/RA/SA reports need to be signed by the owner/operator.

Once the assessment is concluded and a final report is issued, the recommendations and findings cannot be re-written or edited without OCFA's approval. Completing the recommendations is to be done in a timely manner. If the risk is category 1 or 2, the recommendation or finding needs to be mitigated to a lower risk immediately (30 days) or with some interim prevention measures. Final mitigation should not exceed 6 months. In all cases the only acceptable level of risk is category 4.

Federal OSHA has the following guidance for HazOp findings:

- II. "An employer can justifiably decline to adopt a HazOp recommendation where the employer, can document, in writing and based upon adequate evidence, that one or more of the following conditions is true:
1. The analysis upon which the recommendation is based contains factual errors.
 2. The recommendation is not necessary to protect the health and safety of employees and contractors.
 3. An alternative measure would provide a sufficient level of protection.
 4. The recommendation is infeasible."

Orange County Fire Authority RISK MATRIX

		PROBABILITY				
		A	B	C	D	E
C O N S E Q U E N C E S	I	1	1	1	2	4
	II	1	1	2	3	4
	III	2	2	3	4	4
	IV	4	4	4	4	4

PROBABILITY CATEGORY	DEFINITION
A	Possibility of repeated incidents
B	Possibility of isolated incidents
C	Possibility of occurring sometime
D	Not likely to occur
E	Practically impossible

CONSEQUENCE CATEGORY	CONSIDERATIONS			
	HEALTH/SAFETY	PUBLIC DISRUPTION	ENVIRONMENTAL IMPACT	FINANCIAL IMPACT
I	Fatalities / Serious Impact on Public	Large Community	Major /Extended Duration / Full Scale Response	Corporate > \$1,000,000
II	Serious Injury to Personnel / Limited Impact on Public	Small Community	Serious / Significant Resource Commitment	Regional > \$100,000
III	Medical Treatment for Personnel / No Impact on Public	Minor	Moderate / Limited Response of Short Duration	Site > \$10,000
IV	Minor Impact on Personnel	Minimal to None	Minor / Little or No Response Needed	Other < \$10,000

RISK CATEGORY	APPROVAL TO OPERATE	NOTIFICATION	REQUIRED ACTIONS	
			H / S, & Env	PUBLIC & FINANCIAL RISKS
1	Business Owner & OCFA	OCFA	Mitigate	Optional
2	Plant Manager	OCFA	Mitigate	“
3	Facility Operator	OCFA	Mitigate	“
4	None Required		No Further Action	“