



MILPITAS FIRE DEPARTMENT BUREAU OF FIRE PREVENTION

455 E. Calaveras Blvd., Milpitas, CA 95035 (408) 586-3365, FAX (408) 586-3378

Guideline for Preparation of Risk Assessments

Scope and Purpose:

As part of the review of a Conditional Use Permit, a Risk Assessment¹ may be required to be submitted, to evaluate the potential health and safety risks to individuals from the exposure to hazardous materials which may occur at the proposed site due to its location in an industrial zone. The Risk Assessment shall identify potential hazards occupants may come in contact with and any mitigation measures that could be applied to offset exposure to hazardous conditions.

Elements of the Risk Assessment

The following elements shall be included in the Risk Assessment Plan:

1. Summary of Proposed Project
 - a. Location of project, zoning district
 - b. Building information (size, construction type, location on property)
 - c. Proposed use of property for the project (activities within building, hours of operation, number of occupants in building, any outdoor activity, identify any 'sensitive occupants' i.e. children, elderly, handicapped)
2. Identify Primary land use in area of project
 - a. Identify neighboring businesses and type of activity in the general area of the proposed project. Identify the businesses that could have potential environmental impacts based on the nature of their industrial activity as well as the type and quantities of chemicals onsite.
 - b. Review chemicals of concern within the neighboring businesses. Identify chemicals that may have off site consequences if catastrophically released. This would include chemicals that are acutely toxic, exist in a form that readily allow offsite transport (after release) and are used/stored in sufficient quantities.
3. Review of historical hazmat incidents

A review of historical hazmat incidents within the project area shall be conducted. The incidents should be evaluated as to their potential for off site consequences. The incident history shall be incorporated into the risk evaluation.
4. Evaluation of Risk

To estimate potential risks, an offsite consequence analysis shall be provided to show the worst-case release scenario for any chemicals identified as a concern within the neighboring area. The release model shall evaluate if a release would produce concentrations of the chemical at the project site at 1/10 of the established 'Immediately Dangerous to Life and Health' (IDLH) level. The release models shall be based on a worst case release with no engineering controls in place.
4. Conclusion

The risk assessment shall state a conclusion based on a review of the parameters evaluated and the probability of an event occurring. The document shall be prepared and stamped by a qualified California registered professional, (i.e. Industrial Hygienist, Chemical Engineer). If the Risk Assessment concludes that the proposed site is within 1/10 IDLH level, than mitigation measures as outlined below shall be completed.
5. Mitigation Measures

Based on the conclusion of the risk assessment, mitigation measures shall be identified to reduce any potential offsite consequences to the occupants of the proposed project. The measures can be both administrative as well as engineering controls.

The following mitigation measures will be required for conditional use sites in the industrial zones.

 - a. Install a wind directional sock on the building for assessing wind direction and weather conditions.

¹ A Risk Assessment is not a Phase I Environmental Site Assessment

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- b. An in place communication system for notifying occupants via a pre-recorded message in the event of an incident and then directing them on emergency procedures to follow.
- c. Manual shutoff control on the building ventilation system.
- d. An Emergency Action Plan with Evacuation and Shelter in Place procedures.

For project sites that have been identified as having the risk of chemical exposure the following additional mitigation measures shall be required:

- e. An airborne chemical monitoring system for the gases that have been identified as a risk of exposure.
- f. Automatic shutdown of the ventilation system upon gas detection.

If children are to be present at the site on a regular basis the following additional measures will be required:

- g. A parental notification process shall be implemented which includes a description of how each parent will be notified of the nature of hazards in the area.
- h. Notification shall include the emergency procedures that will be in place to protect their children and what procedures the parents need to follow in the event of each type of anticipated emergency.
- i. Records are to be maintained, signed by parents, stating that they understand and accept the emergency procedures that are in place.

6. Annual Review

Both the Risk Assessment and Emergency Action Plan shall be reviewed, updated and submitted to the Fire Department for review on an annual basis. This review shall incorporate any changing conditions within industry and chemical usage within the area. It shall also incorporate any engineering/administrative controls and technological advances available. An individual meeting Fire Department requirements shall prepare the updated plans.

The alarm, communication system, gas detection system and emergency procedures shall be tested upon initial installation and on an annual basis in the presence of the Fire Department.