



## MILPITAS FIRE DEPARTMENT FIRE PREVENTION DIVISION

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### Guideline for Preparation of Risk Assessments

#### **Scope and Purpose**

As part of the review of a Conditional Use Permit, a Risk Assessment<sup>1</sup> may be required to be submitted due to the site's proposed activities as an assembly occupancy and its proposed location in or around an industrial zone.

The purpose of the Risk Assessment is to evaluate the potential health and safety risks to the occupants at the proposed site from potential hazardous materials releases at neighboring facilities.

The Risk Assessment shall identify all potential hazards that occupants may encounter 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 the building(s), any outdoor activity, identify any sensitive occupants (i.e., children, elderly, handicapped, etc.).
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 at industrial facilities near the project location. Identify chemicals that may have off site consequences if catastrophically released. This includes chemicals that are acutely toxic, existing in a form that readily allows offsite transport (after release).

3. Review of Historical Hazardous Material Incidents

A review of historical hazardous material incidents within the project area shall be conducted. The incidents should be evaluated as to their potential for offsite consequences. The incident history shall be incorporated into the risk evaluation.

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<sup>1</sup> A Risk Assessment is not a Phase I Environmental Site Assessment

#### 4. Evaluation of Risk

To estimate potential risks, an offsite consequence analysis shall be provided to show the worst-case release scenario for any toxic chemical 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.

#### 5. 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**, the mitigation measures as outlined below shall be completed.

#### 6. 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.

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

- a. An airborne chemical monitoring system for the material that has/have been identified as a risk of exposure. The monitoring systems shall alarm at 1/10 IDLH.
- 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. Install a wind direction sock on the building for assessing wind direction and weather conditions.
- d. Automatic shutoff control on the building's ventilation system upon gas detection.
- e. An Emergency Action Plan with Evacuation and/or shelter-in-place procedures.

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

- f. 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.
- g. 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.
- h. Records are to be maintained, signed by parents, stating that they understand and accept the emergency procedures that are in place.

#### **Additional Requirements**

The Risk Assessment shall be prepared by a qualified third-party consultant that has the education,

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experience, and credentials as the Subject Matter Expert. CFC 102.9 and 104.7.2

The Risk Assessment shall bear the wet stamp and signature of a registered/certified professional in the State of California (i.e.: registered professional engineer and/or a certified industrial hygienist). CFC 102.9 and 104.7.2

### **Initial Installation and 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. A qualified third-party consultant meeting the outlined requirements shall prepare/update the plans.

The alarm, communication system, gas detection system and emergency procedures shall be installed under permit from the Fire Department and shall be tested upon initial installation in the presence of a Fire Department representative. All subsequent annual testing shall be done by a certified third-party contractor approved by the Fire Department. A copy of the certification report shall be submitted to the Fire Department annually