



AFD Fire Department – Regulations related to hazardous material storage and use in relation to multifamily residences

Fire Marshal's Office
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Regulation and Enforcement

Recommendations to Housing and Planning

- AFD provides a high level, conservative view of evacuation or exposure hazards
- AFD regulates and monitors hazardous materials storage and use
- Zoning changes may encroach on the required buffers and built in safety factors
- Typically 1000 ft. radius is used to search for sites with Aboveground Hazardous Materials Permits when a proposed change is made, reviews are completed based on findings
- Hazardous Materials at permitted sites that may present an evacuation or exposure hazard are assigned an acceptable separation distance using
 - AFD Hazardous Materials Risk Analysis or
 - Latest Edition of Emergency Response Guidebook published by USDOT Pipeline and Hazardous Materials Safety Administration
 - Ideally a best practice is to preserve the commercial buffer around industry



Regulation and Enforcement

Recommendations to Housing and Planning

- For sites not meeting the acceptable separation distance AFD will recommend to Housing and Planning that the zoning change not be approved
- 2017 AFD requested to become part of the formal process for review of zoning change cases
- 2019
 - Several zoning change reviews are not approved based on AFD's input regarding the health, safety, and well being of future residents
 - Developers ask for AFD to informally review zoning changes prior to formal submittal
- Present Day
 - AFD continues to review changes informally and formally and make recommendation to Housing and Planning Department



Concerns

High Density Residential Adjacent to Industry

- Potential Evacuation for large population of residents and pets
 - Logistically an evacuation could take several hours
 - Possible refusal to evacuate
 - Significant AFD, APD, and ATCEMS resources needed to assist in evacuation
- Shelter in place for large population of residents and pets
 - Depending on conditions and time of year this may require shutdown of ventilation and air conditioning systems
 - Possible refusal to shelter in place
 - Significant AFD, APD, and ATCEMS resources to assist residents who are sheltered in place
- Exposure Concerns for citizens, residents, and AFD First Responders
 - A commercial buffer between residential and industry allows AFD time to assess and act
 - Removing the commercial buffer creates possible exposure risk for first responders and residents
 - Shelter in place may also create possible exposure for residents who are in vulnerable populations



Concerns

Areas and Hazardous Materials

- Semiconductor Facilities – 5 sites in Austin
 - Typically store large quantities of hazardous materials
 - Only required to store and safeguard per the fire code under which they were permitted
 - Seeing expansion with the passage of Chips and Science Act of 2022
- Gas suppliers
 - Support the semiconductor industry
 - Typically don't have controls like manufacturing facilities
 - Only required to store and safeguard per the code under which they were permitted
- Highly Toxic, Toxic, or Corrosive Gas Storage
 - Gases are difficult to contain
 - Gases can travel far distances given the right conditions
 - Health implications can be severe or grave
- Heavily Industrial Areas
 - Most manufacturing or warehouses store some level of hazardous materials
 - Movement of tenants in and out presents unregulated hazard



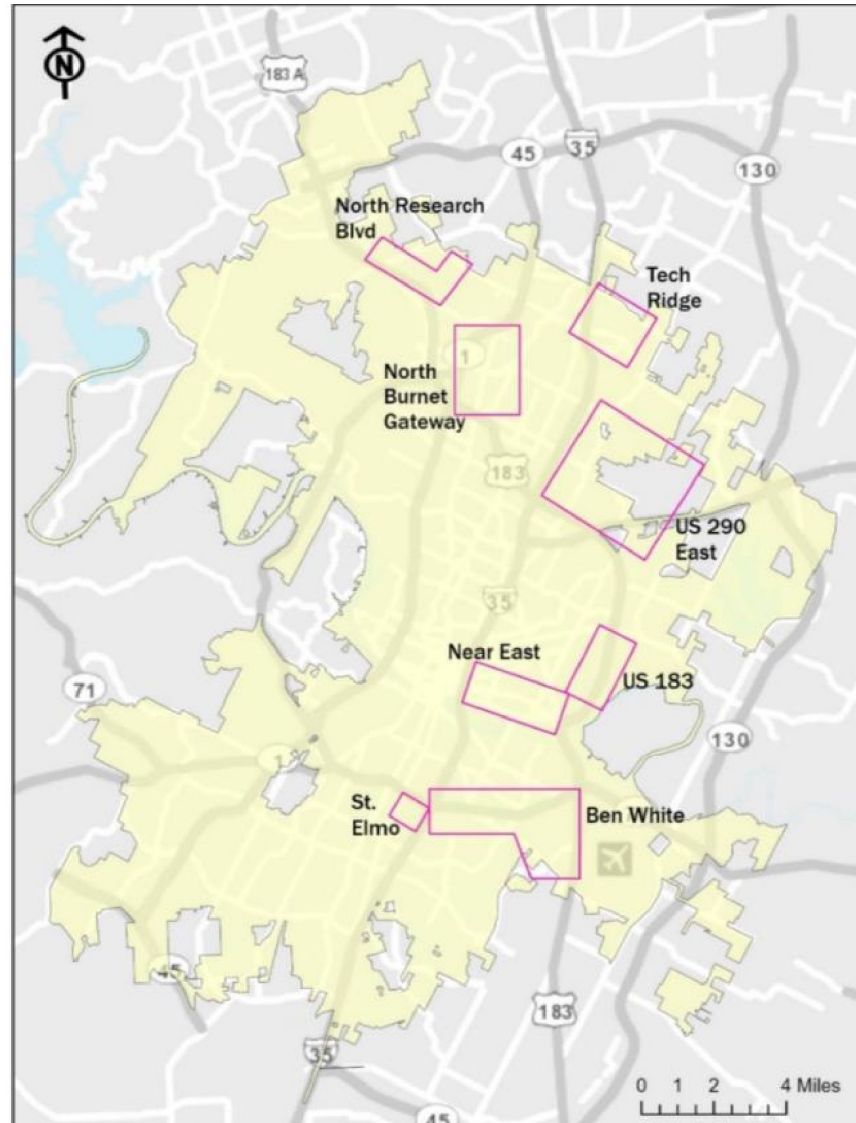
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Semiconductor Sites



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Industrial Areas



Options for Developers

- Provide an Engineering Technical Report that demonstrates an acceptable separation distance
- Develop the site for land uses other than residential zoning
- Institute setbacks based on acceptable separation distances



Future Enforcement of Acceptable Separation Distances

- Continue to institute setback requirements when zoning cases are active
- Provide Letters to File to Housing and Planning, Development Services Department and Land Development Information Services Department that recommend buffers for certain know hazards
- AFD issued Review and Analysis of Chemical Safety Risks in Austin, Texas March 1996
 - Requested by Council after Safeway Farm Product Incident
 - Identified 132 sites of concern at the time
 - Report needs to be updated



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Questions?

