**WORST case release scenario for flammable substances**

***(Complete this form for each flammable substance above threshold quantity)***

**Facility Info**

|  |
| --- |
| Name County Date  |

**Topography *(Select one)***

|  |
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| [ ]  Urban *(for terrain with many obstacles in the immediate area, including buildings and trees)* |
| [ ]  Rural *(for generally flat and unobstructed terrain with no buildings in the immediate area)* |

**Chemical**

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| --- |
| Name CAS#  - -  |
| **Physical state *(select one)*** |
| [ ]  a. Gas (Unliquefied)[ ]  b. Liquid [ ]  c. Gas liquefied by pressure[ ]  d. Gas liquefied by refrigeration |

**Single Largest Vessel / Pipeline**

|  |
| --- |
| Equipment Name       Equipment ID       Drawing Number       |
| Max. Capacity (lbs.)       Location on Site       *(i.e. NW Corner)*  |
| Describe In Detail The Administrative Controls *(i.e. % max. fill including procedure reference)*  |

**Scenario**

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| Vapor Cloud Explosion *(regulatory default scenario)*For a flammable liquid, provide whichever is higher:      Highest daily max. temperature over previous 3 yrs. Or      Process temperatureFor a flammable mixture, how was heat of combustion assumed? Select one.  [ ]  Based on predominate component [ ]  Based on the constituents of the mixture.  Describe mixture using weight percentages.   |

**Mitigation** *(describe any that were considered in determining the release quantity for the worst case scenario)*

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| **Passive** Define any passive mitigation(s). *(i.e. diked area, including dimensions, drawing reference, etc.)* Describe the anticipated effect of the passive mitigation. *(i.e. limits the vaporization)*  |
| Describe how the mitigation is designed to remain functional under the conditions of the release scenario.  [ ]  Has it been verified that mitigation is designed to remain functional under the conditions of the release scenario. |

**Meteorological Conditions**

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| Atmospheric Stability Class       *(default = F, unless local data show a higher min. at all times during previous 3 yrs.)* |
| Wind Speed       *(default = 1.5 m/s, unless local data show a less stable atmosphere at all times during previous 3 yrs.)* |
| Ambient Temperature       *(default = 77 degrees F, or highest daily max. during previous 3 yrs.)* |
| Relative Humidity       *(default = 50%, or average humidity based on local data)* |
| Provide an explanation if default information was not used: *(i.e. include data source references)*  |

**Model Used *(select one or enter another model name in other below)***

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| [ ]  EPA’s RMP\* Comp  |
| [ ]  EPA’s OCA Guidance Reference - If Checked List Tables or Equations Used       |
| [ ]  Aerial locations of Hazardous Atmospheres (ALOHA®) |
| [ ]  Other model (specify)       |

**Potential Off-site Consequence Impact**

|  |  |
| --- | --- |
| Quantity Released (lbs.)        | Release Rate        |
| Duration of the released        | Distance to endpoint (miles)       |
| Residential Population Affected       Data Source Used to Estimate       *(i.e. 2010 Census)* |
| Public Receptors Affected *(List all schools, hospitals, correctional facilities, recreation areas, commercial, office, or industrial areas, etc.)* |
| Name | Address | Estimated Occupancy | Emergency Contact |
|       |       |       |       |
|       |       |       |       |
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| Environmental Receptors Affected (*List all National/State Parks, Forests, or Monuments; Officially Designated Wildlife Sanctuaries/Preserves/Refuges; Federal Wilderness Areas, etc.)*  Data Source Used to Identify Environmental Receptors: (*i.e. USGS Maps)*   |

**Additional Worst-Case Scenarios**

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| * If there are smaller quantities of the substance handled at higher temperatures or pressures in closer proximity to the facility boundary that would result in a greater distance to an endpoint than above, an additional worst-case scenario must be developed.
* Additional worst-case scenarios must be developed if different public receptors are affected.

Based on this information, are additional worst-case scenarios required? [ ] Yes[ ] No If yes, perform and attach. |