

3745-104-11

Hazard assessment: alternative release scenario analysis.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see paragraph (C) of rule 3745-104-01 of the Administrative Code titled "Referenced materials."]

(A) Number of scenarios. The owner or operator of a stationary source with processes subject to program two or program three shall identify and analyze at least one alternative release scenario for each regulated toxic substance held in a covered process and ~~shall identify and analyze~~ at least one alternative release scenario to represent all flammable substances held in covered processes.

(B) Scenarios to consider.

(1) For each scenario required under paragraph (A) of this rule, the owner or operator shall select a scenario which includes the following:

(a) That is more likely to occur than the worst-case release scenario under rule 3745-104-10 of the Administrative Code; ~~and,~~

(b) That will reach an endpoint offsite, unless no such scenario exists.

(2) Release scenarios considered may include, but are not limited to, the following, where applicable:

(a) Transfer hose releases due to splits or sudden hose uncoupling; ~~and,~~

(b) Process piping releases from failures at flanges, joints, welds, valves and valve seals, and drains or bleeds; ~~and,~~

(c) Process vessel or pump releases due to cracks, seal failure, or drain, bleed, or plug failure; ~~and,~~

(d) Vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks; ~~and,~~

(e) Shipping container mishandling and breakage or puncturing leading to a spill.

(C) Parameters to be applied. The owner or operator shall use the appropriate parameters defined in rule 3745-104-09 of the Administrative Code to determine distance to the endpoints. The owner or operator may use either the methodology provided in the "RMP Offsite Consequence Analysis Guidance" or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for

the specified modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator allows the director or the director's representative access to the model and describes model features and differences from publicly available models to local emergency planners upon request.

- (D) Consideration of mitigation. Active and passive mitigation systems may be considered provided they can withstand the event that triggered the release and would still be functional.
- (E) Factors in selecting scenarios. The owner or operator shall consider the following in selecting alternative release scenarios:
 - (1) The five-year accident history provided in rule 3745-104-16 of the Administrative Code; ~~and~~
 - (2) Failure scenarios identified under rule 3745-104-18 or 3745-104-25 of the Administrative Code.

Effective:

Five Year Review (FYR) Dates: 4/9/2021

Certification

Date

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