



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Remediation and Redevelopment Division

RIDE RISK CONDITIONS CLASSIFICATION FORM

Check the applicable scenarios for each pathway or condition. Review the scenarios from left to right.
The RIDE Risk is determined by the column farthest to the left for which ANY scenario was check marked.

	Risks Present and Immediate		Risks Present and Requires Action in the Short-term		Risks Present and Require Action in the Long-term		Risks Controlled Interim		Risks Controlled Final		Inadequate Data to Assign Risk *	
RIDE Risk Category	Existing or immediate exposure or threat to human health, safety, welfare, environment, or sensitive environmental receptor.	<input type="checkbox"/>	Based on the site conceptual site model (CSM) and migration of contaminants, there is a potential for an exposure or threat to human health, safety, or welfare, or to the environment, or sensitive environmental receptors within the short term. For the purpose of classification, potential exposures or threats considered to be short term generally are from the present to 2 years.	<input type="checkbox"/>	Based on the site CSM and migration of contaminants, there is a potential for exposure or threat to human health, safety, or welfare, or to the environment, or sensitive environmental receptors in the long term. For the purpose of classification, potential exposures or threats considered to be long term generally are greater than 2 years.	<input type="checkbox"/>	There is currently no short or long-term effect to human health, safety or welfare or sensitive environmental receptors. An unacceptable risk from contamination is not anticipated based on current land use. Risks are controlled as part of due care, remedial or corrective actions. This includes a response activity plan, NFA or FAR that has been approved and implemented that contains on-going OM&M (e.g., exposure barrier or mitigation system), an approved documentation of due care compliance submittal, or compliance documentation submitted at the department's request that has been reviewed and determined to be protective by RRD.	<input type="checkbox"/>	There is no short or long-term effect to human health, safety or welfare or sensitive environmental receptors. An unacceptable risk from contamination is not anticipated based on current and reasonably foreseeable land use. <u>Risks are controlled and necessary restrictions are in place as part of a remedial or corrective action.</u> This includes an approved Part 213 Closure Report, unrestricted residential NFA report, restricted NFA not requiring a post closure agreement, or approved response activity plan with land use restrictions.	<input type="checkbox"/>	Available soil and groundwater data is limited, and conclusions cannot be drawn on the risks posed by contamination relative to applicable exposure pathways or conditions. Contaminants are detected exceeding criteria, but the severity and distribution are unknown. Recognized Environmental Conditions (RECs) are identified that commonly affect a pathway but were not investigated, or, the media of the pathway was not sampled or was sampled but not in the correct location. *This risk category CANNOT be selected if any pathway or condition is checked "Risks Present & Immediate" or "Risks Present & Requires Action in the Short Term."	<input type="checkbox"/>
Evaluate Pathway in Relation to NAPL (see NAPL Guidance)	Presence of migrating non-aqueous phase liquid (NAPL). Presence of acute risks due to direct contact or inhalation exposures to mobile or residual NAPL . This includes contaminants with acute (short-term) exposures, or in contact with the structure (including foundation and footers).	<input type="checkbox"/>	Presence of acute risks due to inhalation exposures from mobile or residual NAPL where contamination is not in contact with a structure.	<input type="checkbox"/>	Presence of long-term (chronic) risks due to direct contact or inhalation from mobile or residual NAPL.	<input type="checkbox"/>	Mobile and residual NAPL are not present, or present and delineated, risks are abated or managed.	<input type="checkbox"/>	Mobile and residual NAPL are not present, or present and delineated, risks are abated or managed including a restrictive covenant is in place.	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>

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Fire or Explosion	<p>Explosive vapor levels are present in a residence or other structure.</p> <p>Explosive vapor levels are present in subsurface utility system(s).</p> <p><i>NOTE: Explosive levels are present when vapor concentrations are at or greater than 10 percent of the Lower Explosive Limit (LEL) for any regulated substance or a mixture of regulated substances.</i></p>	<input type="checkbox"/>	<p>There is the potential for explosive vapor levels to accumulate in a residence, other structure, or utility systems. A potential for explosive conditions exists when soil gas concentrations are at or greater than 10 percent of the LEL and/or groundwater concentrations are greater than Flammability and Explosivity Screening Levels (FESLs).</p>	<input type="checkbox"/>	<p>Soil gas concentrations are less than 10 percent of the LEL and/or groundwater concentrations are lower than FESLs and unlikely to become potentially flammable or explosive .</p>	<input type="checkbox"/>	<p>No flammable or explosive vapor concentrations are present.</p>	<input type="checkbox"/>	<p>No flammable or explosive vapor concentrations are present.</p>	<input type="checkbox"/>	<p>See RIDE Risk Category description above.</p>	<input type="checkbox"/>
Drinking Water Ingestion	<p>A public or private potable water supply well, or public surface water intake or public water supply line exceeds drinking water criteria or is immediately threatened.</p> <p>A potable water supply is “immediately threatened” if contaminants are documented in the drinking water but below drinking water criteria (or) no contaminants have yet been documented in the drinking water but contamination of the potable water supply is expected at any time due to the proximity of the well or surface water intake to groundwater or surface water contaminated above drinking water criteria.</p>	<input type="checkbox"/>	<p>A non-potable water supply well exceeds criteria or is immediately threatened, e.g., irrigation wells, non-contact cooling water, stab wells for filling pools or other outside uses, etc.</p>	<input type="checkbox"/>	<p>Soil is contaminated above the leaching to groundwater criteria or groundwater is contaminated above drinking water criteria; and potable wells, or non-potable water supply wells that may result in incidental ingestion or inhalation exposures, are producing from the contaminated aquifer, but are located more than two years groundwater travel time from the known extent of the contaminants of concern.</p>	<input type="checkbox"/>	<p>There is no groundwater contamination that exceeds drinking water criteria, groundwater contamination is not in an aquifer, or there are no current groundwater uses for drinking water or other uses that may have a long-term effect on human health, safety or welfare.</p>	<input type="checkbox"/>	<p>There is no groundwater contamination that exceeds drinking water criteria, groundwater contamination is not in an aquifer, or there are no current groundwater uses for drinking water or other uses that may have a long-term effect on human health, safety or welfare, and potential future uses are reliably restricted.</p>	<input type="checkbox"/>	<p>See RIDE Risk Category description above.</p>	<input type="checkbox"/>
			<p>Groundwater contamination exceeds drinking water criteria and a public or private water supply well that is producing from the contaminated aquifer, is located within two years groundwater travel time from the known extent of contaminants of concern.</p>	<input type="checkbox"/>	<p>Groundwater contamination exceeds drinking water criteria and non-potable water supply wells, producing from a different interval of the aquifer, are located within the known extent of the contaminants of concern.</p>	<input type="checkbox"/>						
			<p>Groundwater contamination exceeds drinking water criteria and public or private potable water supply wells, producing from a different interval of the aquifer, are located within the known extent of contaminants of concern.</p>	<input type="checkbox"/>								

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Direct Contact	<p>Evaluate applicability of criteria in relation to the entire soil column.</p> <p>Contaminant concentrations in surficial soils (0-12 inches) exceed direct contact criteria (if applicable) or site-specific direct contact criteria when the criteria are not applicable for comparison due to NAPL.</p>	<input type="checkbox"/>	<p>Evaluate applicability of criteria in relation to the entire soil column.</p> <p>If criteria are applicable for comparison, soil contamination at ≤ 3 feet below ground surface that could typically be encountered by the public or by landscaping activities exceeds the direct contact criteria.</p>	<input type="checkbox"/>	<p>Evaluate applicability of criteria in relation to the entire soil column.</p> <p>If criteria are applicable for comparison, soil contamination at > 3 feet below ground surface exceeds the direct contact criteria.</p>	<input type="checkbox"/>	<p>Evaluate applicability of criteria in relation to the entire soil column.</p> <p>Soil contamination does not exceed direct contact criteria or contamination is adequately covered.</p>	<input type="checkbox"/>	<p>Evaluate applicability of criteria in relation to the entire soil column.</p> <p>Soil contamination does not exceed direct contact criteria or contamination is adequately covered and restrictions to maintain the cover are in place.</p>	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>
Inhalation	<p>Criteria are not applicable for comparison to analytical results for acute (short-term) risk compounds. Acute (short-term) risk compounds are listed in Addendum 1 of EGLE Guidance Document for the Vapor Intrusion Pathway</p> <p>Concentrations of soil gas that could cause existing or immediate exposures are at levels above Time-Sensitive Media Specific Recommended Interim Action Screening Levels (TS MSSLs). TS MSSLs can be viewed at EGLE Guidance Document for The Vapor Intrusion Pathway Appendix D.3.</p> <p>Concentrations in soil gas immediately adjacent to or beneath a residential home and/or a commercial structure exceed the acute site-specific criteria.</p> <p>Concentrations in soil NAPL, or groundwater in contact with a structure (including foundation and footers) exceed acute sites-specific criteria.</p>	<input type="checkbox"/>	<p>Evaluate applicability of criteria (reference "C.1 Checklist for Determining if Generic VIAIC Apply" of EGLE Guidance Document for The Vapor Intrusion Pathway).</p> <p>Criteria are not applicable for comparison to analytical results for acute (short-term) risk compounds. Acute (short-term) risk compounds are listed in the EGLE Guidance Document for The Vapor Intrusion Pathway, Addendum 1.</p> <p>If criteria are not applicable, a site-specific evaluation is necessary, including developing site-specific criteria.</p> <p>Concentrations in soil or groundwater not in contact with a structure (including foundation and footers), within the lateral inclusion zone, exceed acute site-specific criteria or concentrations in soil gas within the lateral inclusion zone exceed acute site-specific criteria.</p> <p>Concentrations of soil gas are present directly beneath or immediately adjacent to an occupied structure exceed chronic site-specific criteria.</p>	<input type="checkbox"/>	<p>Evaluate applicability of criteria (reference "C.1 Checklist for Determining if Generic VIAIC Apply" of EGLE Guidance Document for The Vapor Intrusion Pathway).</p> <p>If criteria are not applicable, a site-specific evaluation is necessary, including developing site-specific criteria.</p> <p>Concentrations of contaminants in soil or groundwater exceed generic or site-specific criteria that may pose a long-term (chronic) health risk are present or soil gas concentrations not immediately beneath or directly adjacent to an occupied structure within the lateral inclusion zone exceed long-term (chronic) site-specific criteria.</p>	<input type="checkbox"/>	<p>No long-term threat to human health, safety and welfare is present based on any of the following: -Volatile contaminants are not present. -Soil, groundwater, and soil gas concentrations do not exceed acute or long-term (chronic) criteria. -Representative soil gas concentrations demonstrate compliance. -The vapor source is defined, there are no structures within the lateral inclusion zone. -A vapor mitigation system has been installed and demonstrated to be operating effectively.</p>	<input type="checkbox"/>	<p>No long-term threat to human health, safety and welfare is present based on any of the following: -Volatile contaminants are not present. -Soil, groundwater, and soil gas concentrations do not exceed acute or long-term (chronic) criteria. -Representative soil gas concentrations demonstrate compliance. -The vapor source is defined, there are no structures within the lateral inclusion zone, and restrictions for future structures are in place.</p>	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>

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Inhalation (Cont.)	NAPL or groundwater contamination above acute criteria is present in a sump.	<input type="checkbox"/>	Groundwater contamination is present in a sump or is in contact with a structure (including foundation and footers) at concentrations above long-term (chronic) criteria.	<input type="checkbox"/>	NAPL or groundwater contamination is not in a sump or in contact with a structure (including foundation and footers).	<input type="checkbox"/>	NAPL or groundwater contamination is not present in a sump or not in contact with a structure (including foundation and footers).	<input type="checkbox"/>	NAPL or groundwater contamination is not present in a sump or not in contact with a structure (including foundation and footers).	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>
	Concentrations of vapors that cause existing or immediate exposures are at levels above MIOSHA PELs and/or STELs within the utilities or in subsurface utility corridor or construction trenches.	<input type="checkbox"/>	Concentrations of vapors within the utilities or in subsurface utility corridor or construction trenches above chronic-site-specific criteria.	<input type="checkbox"/>	Concentrations of vapors detected within the utilities or in subsurface utility corridor or construction trenches below site-specific criteria, but additional sampling required to verify concentrations.	<input type="checkbox"/>	No vapors present within the utilities or in subsurface utility corridor or construction trenches.	<input type="checkbox"/>	No vapors present within the utilities or in subsurface utility corridor or construction trenches.	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>
Soil Inhalation (Ambient Air)	Concentrations of acute toxicants are present in ambient air that exceed time sensitive acceptable air concentrations and can potentially result in an unacceptable exposure to human receptors via the particulate soil inhalation and volatile soil inhalation pathways.	<input type="checkbox"/>	Soil contamination present in soil ≤3 feet) below the ground surface exceeds the long-term (chronic) particulate soil inhalation criteria (PSIC).	<input type="checkbox"/>	Soil contamination at > 3 feet below ground surface exceeds long-term (chronic) PSIC or exceeds long-term (chronic) volatile soil inhalation criteria (VSIC)at any depth.	<input type="checkbox"/>	Soil contamination does not exceed acute or long-term (chronic) VSIC or PSIC, or soil contamination is adequately covered.	<input type="checkbox"/>	Soil contamination does not exceed acute or long-term (chronic) VSIC or PSIC, or contamination is adequately covered and restrictions to maintain the cover are in place.	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>
Ground-water - Surface Water Interface (GSI)	Contaminated groundwater is discharging to a surface water body above the Water Quality Standards - Final Acute Values (FAV) or resulting in visible NAPL film or sheen present on surface water.	<input type="checkbox"/>	The groundwater contaminant plume exceeds GSI criteria, and the leading edge of the contaminated groundwater plume is located within two years groundwater travel time of a surface water body or the plume is entering a storm sewer and the contamination will reach the outfall of the storm sewer within two years travel time.	<input type="checkbox"/>	The groundwater contaminant plume exceeds GSI criteria, and the leading edge of the contaminated groundwater plume is located more than two years groundwater travel time from a surface water body, or the plume is entering a storm sewer and the contamination will reach the outfall of the storm sewer in more than two years.	<input type="checkbox"/>	Groundwater contamination is not reasonably expected to vent to surface waters, or does not exceed GSI criteria, or mixing zone-based GSI criteria established by EGLE.	<input type="checkbox"/>	Groundwater contamination is not reasonably expected to vent to surface waters, or does not exceed GSI criteria or mixing zone-based GSI criteria established by EGLE.	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>
Sensitive Environmental Receptors	A sensitive habitat or sensitive resource (e.g., sport fish, economically important species, threatened or endangered species, wetland, etc.) may be exposed to contaminated media or measurable or observable harm may occur.	<input type="checkbox"/>	The leading edge of the groundwater contaminant plume is located within two years groundwater travel time distance of a sensitive habitat or resources (e.g., sport fish, economically important species, threatened or endangered species, wetlands, etc.).	<input type="checkbox"/>	The leading edge of the groundwater contamination is located more than two years groundwater travel time from a sensitive habitat or resources (e.g., sport fish, economically important species, threatened or endangered species, wetlands, etc.).	<input type="checkbox"/>	No sensitive habitat or resources exist on or near the site or facility.	<input type="checkbox"/>	No sensitive habitat or resources exist on or near the site or facility.	<input type="checkbox"/>	See RIDE Risk Category description above.	<input type="checkbox"/>

NOTE: As used in this document criteria represents Part 201 generic criteria, and Part 213 risk based screening levels (RBSLs) and site-specific criteria represents Part 201 site-specific criteria and Part 213 site-specific target levels (SSTLs).

Acronyms:

CSM - Conceptual Site Model

EGLE – Department of Environment, Great Lakes, and Energy

FAVs – Part 31 Water Quality Standards Aquatic Life Values Final Acute Values

FESLs - Flammability and Explosivity Screening Levels

GSI – Groundwater-Surface Water Interface

NAPL - Non-Aqueous Phase Liquids

MIOSHA – Michigan Occupational Safety and Health Administration

MIOSHA PELs – Permissible Exposure Limits

MIOSHA STELs – Short Term Exposure Limit

PSIC – Particulate Soil Inhalation Criteria

Criteria - Risk-Based Screening Levels or Site-Specific criteria

TS MSSLs - Time-Sensitive Media Specific Recommended Interim Action Screening Levels

VSIC – Volatile Soil Inhalation Criteria

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