

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.20120a Cleanup criteria; response activity plan; departmental duties; rules.

Sec. 20120a.

(1) The department may establish cleanup criteria and approve of remedial actions in the categories listed in this subsection. The cleanup category proposed must be the option of the person proposing the remedial action, subject to department approval if required, considering the appropriateness of the categorical criteria to the facility. The categories are as follows:

- (a) Residential.
- (b) Nonresidential.
- (c) Limited residential.
- (d) Limited nonresidential.

(2) As an alternative to the categorical criteria under subsection (1), the department may approve a response activity plan or a no further action report containing site-specific criteria that satisfy the requirements of section 20120b and other applicable requirements of this part. The department shall utilize only reasonable and relevant exposure pathways in determining the adequacy of a site-specific criterion. Additionally, the department may approve a remedial action plan for a designated area-wide zone encompassing more than 1 facility, and may consolidate remedial actions for more than 1 facility.

(3) The department shall develop cleanup criteria under subsection (1) based on generic human health risk assessment assumptions that are determined by the department to appropriately characterize patterns of human exposure associated with certain land uses. The department shall consider only reasonable and relevant exposure pathways and factors in determining these assumptions. The department may prescribe more than 1 generic set of exposure assumptions within each category described in subsection (1). If the department prescribes more than 1 generic set of exposure assumptions within a category, each set of exposure assumptions creates a subcategory within a category described in subsection (1). The department shall specify facility characteristics that determine the applicability of criteria derived for these categories or subcategories. When developing and promulgating cleanup criteria under subsection (1), the department shall do all of the following:

(a) Except as set forth in subdivision (c), for each hazardous substance, use final toxicity values from the United States Environmental Protection Agency integrated risk information system, or more recent United States Environmental Protection Agency Office of Pesticide Programs toxicity values for pesticides that are incorporated by the integrated risk information system in place of values that have been archived by the integrated risk information system, if available. If the United States Environmental Protection Agency has determined that there is insufficient scientific data to derive a value for inclusion in the integrated risk information system, the department shall not derive or adopt a value for that hazardous substance. If a value is not available in the integrated risk information system, the department shall apply the following order of precedence when selecting toxicity values:

(i) The best value from the agency for toxic substances and disease registry final minimal risk levels for hazardous substances or the United States Environmental Protection Agency provisional peer-reviewed toxicity values.

(ii) If a value is not available under subparagraph (i), the best final value from the United States Environmental Protection Agency health effects assessment summary table, or final values adopted by other states, the World Health Organization, Canada, or the European Union.

(iii) If a value is not available under subparagraph (i) or (ii), a value developed by the department if there is sufficient supporting toxicity data and information available in the peer-reviewed published scientific literature.

(b) Apply the following order of precedence when selecting chemical or physical data for the development of cleanup criteria:

(i) The best relevant experimentally measured data.

(ii) If data is not available under subparagraph (i), the best relevant modeled or estimated data.

(c) If the department desires to use a toxicity value or input that is different than a value that is available on the United States Environmental Protection Agency integrated risk information system, or more recent United States Environmental Protection Agency Office of Pesticide Programs toxicity values for pesticides that are incorporated by the integrated risk information system in place of values that have been archived by the integrated risk information system, or desires to establish a value when the United States Environmental Protection Agency determined that there was insufficient scientific data to do so when last evaluated by the United States Environmental Protection Agency, the department shall provide public notice and a written explanation of its intent to do so and conduct a stakeholder process to obtain input. After obtaining stakeholder input, the department may promulgate a rule to use an alternative value in accordance with the order of precedence set forth in subdivision (a) (i) to (iii), if the department demonstrates all of the following:

- (i) The integrated risk information system value is based on a determination that is at least 10 years old.
- (ii) There is more current data in the peer-reviewed scientific literature that is used on a general basis by the United States Environmental Protection Agency or multiple other regulatory agencies nationally for the purpose of calculating cleanup criteria or standards.
- (iii) After assessing the body of evidence for the hazardous substance using a rigorous systematic review methodology, such as that used by the National Toxicology Program's Office of Health Assessment and Translation and the European Food Safety Authority, the weight of scientific evidence clearly supports the use of the proposed value as best available science for the purpose of calculating generic cleanup criteria.
- (d) Use a daily exposure time for inhalation in the exposure intake for a nonresidential worker in an algorithm or equation used to calculate generic cleanup criteria under this part that is equal to the average number of hours, not to exceed 10 hours, that a nonresidential worker spends working in a 5-day work week according to the most appropriate governmental data or information.
- (e) When the department considers the pregnant woman as a potential sensitive receptor to address prenatal developmental effects, the department may apply a single-event exposure scenario for a hazardous substance, under the process set forth in subdivision (f), only when either of the following occurs:
 - (i) The United States Environmental Protection Agency applies a single-event exposure scenario to establish regional screening levels for that hazardous substance.
 - (ii) The department demonstrates, after conducting a comprehensive assessment of the specific hazardous substance, that, for that specific hazardous substance, a single exposure may result in an adverse effect and the weight of scientific evidence supports the application of a single-event exposure scenario. The department's comprehensive assessment must evaluate the body of scientific evidence using a systematic review methodology, such as that used by the National Toxicology Program's Office of Health Assessment and Translation and the European Food Safety Authority. The comprehensive assessment must, if appropriate, take into account all of the following:
 - (A) Whether there is data available involving single-day exposures to the hazardous substance during pregnancy.
 - (B) The differences in sensitivity, periods of development, and progression of different types of developmental effects in humans and animals.
 - (C) Differences in toxicokinetics between species.
- (f) Before conducting the comprehensive assessment in subdivision (e)(ii), the department shall provide public notice and a written explanation of its intent to do so. On completion of the assessment, the department shall conduct a stakeholder process to obtain input. If, after obtaining stakeholder input, the department elects to apply a single-event exposure scenario for a particular hazardous substance, the department shall do so in a rule.
- (4) If a hazardous substance poses a carcinogenic risk to humans, the cleanup criteria derived for cancer risk under this section must be the 95% upper bound on the calculated risk of 1 additional cancer above the background cancer rate per 100,000 individuals using the generic set of exposure assumptions established under subsection (3) for the appropriate category or subcategory. If the hazardous substance poses a risk of an adverse health effect other than cancer, cleanup criteria must be derived using appropriate human health risk assessment methods for that adverse health effect and the generic set of exposure assumptions established under subsection (3) for the appropriate category or subcategory. A hazard quotient of 1.0 must be used to derive noncancer cleanup criteria. For the noncarcinogenic effects of a hazardous substance present in soils, the intake must be assumed to be 100% of the protective level, unless compound and site-specific data are available to demonstrate that a different source contribution is appropriate. If a hazardous substance poses a risk of both cancer and 1 or more adverse health effects other than cancer, cleanup criteria must be derived under this section for the most sensitive effect.
- (5) If a cleanup criterion derived under subsection (4) for groundwater in an aquifer differs from either: (a) the state drinking water standards established under section 5 of the safe drinking water act, 1976 PA 399, MCL 325.1005, or (b) the national secondary drinking water regulations established under 42 USC 300g-1, or (c), if there is not national secondary drinking water regulation for a contaminant, the concentration determined by the department according to methods approved by the United States Environmental Protection Agency below which taste, odor, appearance, or other aesthetic characteristics are not adversely affected, the cleanup criterion is the more stringent of (a), (b), or (c) unless the department determines that compliance with this subsection is not necessary because the use of the aquifer is reliably restricted or controlled under provisions of a postclosure plan or a postclosure agreement or by site-specific criteria approved by the department under section 20120b.
- (6) The department shall not approve a remedial action plan or no further action report in categories set forth in subsection (1)(b) to (d), unless the person documents that the current zoning of the property is consistent with the categorical criteria being proposed, or that the governing zoning authority intends to change the zoning designation so that the proposed criteria are consistent with the new zoning designation, or the current property use is a legal nonconforming use. The department shall not grant final approval for a remedial action plan or no further action report that relies on a change in zoning designation until a final determination of that zoning change has been made by the local unit of government. The department may approve a remedial action plan or no further action report that achieves categorical criteria that are based on greater exposure potential than the criteria applicable to current zoning. In addition, the remedial action plan or no further action report must include documentation that the

current property use is consistent with the current zoning or is a legal nonconforming use. Abandoned or inactive property must be considered on the basis of zoning classifications as described above.

(7) Cleanup criteria from 1 or more categories in subsection (1) may be applied at a facility, if all relevant requirements are satisfied for application of a pertinent criterion.

(8) The need for soil remediation to protect an aquifer from hazardous substances in soil must consider the vulnerability of the aquifer or aquifers potentially affected if the soil remains at the facility. Migration of hazardous substances in soil to an aquifer is a pertinent pathway if appropriately based on consideration of site-specific factors.

(9) The department may establish cleanup criteria for a hazardous substance using a biologically based model developed or identified as appropriate by the United States Environmental Protection Agency if the department determines all of the following:

(a) That application of the model results in a criterion that more accurately reflects the risk posed.

(b) That data of sufficient quantity and quality are available for a specified hazardous substance to allow the scientifically valid application of the model.

(c) The United States Environmental Protection Agency has determined that application of the model is appropriate for the hazardous substance in question.

(10) If the target detection limit or the background concentration for a hazardous substance is greater than a cleanup criterion developed for a category under subsection (1), the criterion is the target detection limit or background concentration, whichever is larger, for that hazardous substance in that category.

(11) The department may also approve cleanup criteria if necessary to address conditions that prevent a hazardous substance from being reliably measured at levels that are consistently achievable in samples from the facility in order to allow for comparison with generic cleanup criteria. A person seeking approval of a criterion under this subsection shall document the basis for determining that the relevant published target detection limit cannot be achieved in samples from the facility.

(12) In determining the adequacy of a land-use based response activity to address sites contaminated by polychlorinated biphenyls, the department shall not require response activity in addition to that which is subject to and complies with applicable federal regulations and policies that implement the toxic substances control act, 15 USC 2601 to 2697.

(13) Remedial action to address the release of uncontaminated mineral oil satisfies cleanup criteria under this part for groundwater or for soil if all visible traces of mineral oil are removed from groundwater and soil.

(14) Approval by the department of remedial action based on the categorical standard in subsection (1)(a) or (b) must be granted only if the pertinent criteria are satisfied in the affected media. The department shall approve the use of probabilistic or statistical methods or other scientific methods of evaluating environmental data when determining compliance with a pertinent cleanup criterion if the methods are determined by the department to be reliable, scientifically valid, and best represent actual site conditions and exposure potential.

(15) If a discharge of venting groundwater complies with this part, a permit for the discharge is not required.

(16) Remedial actions that rely on categorical cleanup criteria developed under subsection (1) must also consider other factors necessary to protect the public health, safety, and welfare, and the environment as specified by the department, if the department determines based on data and existing information that these considerations are relevant to a specific facility. These factors include, but are not limited to, the protection of surface water quality and consideration of ecological risks if pertinent to the facility based on the requirements of this part.

(17) The department shall promulgate all generic cleanup criteria and target detection limits as rules. Except for generic cleanup criteria and target detection limits developed before January 11, 2018, and those generic cleanup criteria determined as set forth in subsections (5) and (23) and section 20120e(1)(a), generic cleanup criteria and target detection limits, and any modifications or revisions to generic cleanup criteria and target detection limits, are not legally enforceable until promulgated as rules. The generic cleanup criteria and target detection limits are subject to all of the following:

(a) The department may periodically repromulgate rules for any portion of the generic cleanup criteria to adopt and use new toxicity values or chemical or physical data selected under subsection (3)(a) and (b) or to otherwise update the generic cleanup criteria in accordance with this part to incorporate, as appropriate, knowledge gained through research and studies in the areas of fate and transport and risk assessment taking into account best practices from other states, reasonable and realistic conditions, and sound science. The department may also repromulgate rules that establish target detection limits to update those limits in accordance with this part.

(b) If generic cleanup criteria are included in or relied on as a basis for decision in a work plan, response activity plan, remedial action plan, postclosure plan, request for certificate of completion, or similar document, that is submitted to the department or approved by the department before the effective date of a rule revising those cleanup criteria, then the generic cleanup criteria effective at the time of submittal or prior approval continue to apply to the review, revision, or implementation of the plan, request, or document, as well as to any future review, approval, or disapproval of a no further action report or any part of the no further action report that is based on the plan, request, or document, unless either of the following occurs:

(i) The person making the submittal voluntarily elects to apply the revised cleanup criteria.

(ii) The department director makes a site-specific demonstration, based on clear and convincing evidence, that the prior cleanup criteria are no longer protective of the public health, safety, or welfare, or the environment, given the totality of circumstances at the site, including any site-specific factors that reduce exposure or risk, such as the existence of land or resource use restrictions that reduce or restrict exposure. This subparagraph does not apply if, no later than 6 months after the promulgation of the rule revision changing the cleanup criteria, both of the following conditions are met:

(A) The person has substantially completed all active remediation as set forth in the approved plan, request, or similar document, and only monitoring, maintenance, or postclosure activities remain.

(B) The person submits a request for a no further action approval to the department.

(c) No further action reports that have been approved by the department and that rely on cleanup criteria that have been subsequently revised remain valid, subject to the liability provisions of section 20126(4)(e).

(d) If generic cleanup criteria are included in or relied on as a basis for decision in a no further action report, other than a no further action report described in subdivision (b)(ii), that is submitted to the department but not yet approved by the department before the effective date of a rule revising those cleanup criteria, then the generic cleanup criteria effective at the time of submittal continue to apply to the review, revision, and approval of the report unless either of the following occurs:

(i) The person making the submittal voluntarily elects to apply the revised cleanup criteria.

(ii) The department director makes a site-specific demonstration, based on clear and convincing evidence, that the prior generic cleanup criteria are no longer protective of the public health, safety, or welfare, or the environment, given the totality of circumstances at the site, including any site-specific factors that reduce exposure or risk, such as the existence of land or resource use restrictions that reduce or restrict exposure.

(e) A demonstration by the department director under subdivision (b) or (d) that prior cleanup criteria are no longer protective of the public health, safety, or welfare, or the environment, is appealable in accordance with section 20114e.

(f) Notwithstanding subdivisions (b) to (d), an owner's or operator's obligations under section 20107a are based on the current numeric cleanup criteria under subsection (1) or site-specific criteria approved under section 20120b.

(18) A person demonstrates compliance with indoor air inhalation criteria for a hazardous substance at a facility under this part if all of the following conditions are met:

(a) The facility is an establishment covered by the classifications provided by sector 31-33 "manufacturing, of the North American Industry Classification System, United States, 2012, published by the Office of Management and Budget.

(b) The person complies with the Michigan occupational safety and health act, 1974 PA 154, MCL 408.1001 to 408.1094, and the rules promulgated under that act applicable to the exposure to the hazardous substance, including, but not limited to, the occupational health standards for air contaminants, R 325.51101 to R 325.51108 of the Michigan Administrative Code.

(c) The hazardous substance is included in the facility's hazard communication program under section 14a of the Michigan occupational safety and health act, 1974 PA 154, MCL 408.1014a, and the hazard communication rules, R 325.77001 to R 325.77004 of the Michigan Administrative Code, except that, unless the hazardous substance is in use in the facility, the requirement to have a material safety data sheet in the workplace requires only a generic material safety data sheet for the hazardous substance and the labeling requirements do not apply.

(19) The department shall promulgate as rules the algorithms used to calculate, modify, or revise all residential and nonresidential generic cleanup criteria, as well as the tables listing, by hazardous substance, all toxicity, exposure, and other algorithm factors or variables used in the department's calculations, modifications, or revisions.

(20) Calculation and application of toxic equivalency quotients are subject to the following:

(a) The toxic equivalency factors used must only be those adopted by the World Health Organization.

(b) When compounds contributed by 2 or more persons acting independently are combined in a toxic equivalency quotient to assess human health risks, harm is divisible and subject to apportionment of liability under subsections 20129(1) and (2).

(c) To assess human health risks, the toxic equivalency quotient must be compared to generic or site-specific criteria for the reference hazardous substance.

(21) Polychlorinated dibenzodioxin and dibenzofuran congeners are not likely to leach from soil to groundwater. The groundwater surface water interface protection and the residential drinking water protection exposure pathways are not applicable or relevant when assessing polychlorinated dibenzodioxin and dibenzofuran congeners unless the department demonstrates that those congeners are leaching at material concentrations through co-solution.

(22) Polychlorinated dibenzodioxin and dibenzofuran congeners are not likely to volatilize from soil or groundwater into the air. Vapor inhalation exposure pathways are not applicable or relevant when assessing polychlorinated dibenzodioxin and dibenzofuran congeners.

(23) For a substance that does not have generic cleanup criteria, if, based on the best available information, the department determines that the substance is a hazardous substance, the department may calculate generic cleanup criteria for that hazardous substance using toxicity values and chemical and physical data selected under subsection

(3)(a) and (b) and in accordance with all other requirements of this part and publish the generic cleanup criteria on the department's website. Within 30 days after publishing the new generic cleanup criteria, the department shall initiate rule-making to promulgate rules for the new criteria by filing a rule-making request under section 39 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.239. The rule-making request must only include the revisions necessary to promulgate the new generic cleanup criteria. The new generic cleanup criteria published under this subsection take effect and are legally enforceable when published by the department if the department also initiates rule-making to promulgate rules for the new criteria within 30 days. The new generic cleanup criteria published under this subsection remain effective and legally enforceable until replaced by a final rule, or the time limitation in section 45(1) of the administrative procedures act of 1969, 1969 PA 306, MCL 24.245, is not met.

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