Act No. 581
Public Acts of 2018
Approved by the Governor
December 28, 2018

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STATE OF MICHIGAN 99TH LEGISLATURE REGULAR SESSION OF 2018

Introduced by Senator Stamas

ENROLLED SENATE BILL No. 1244

AN ACT to amend 1994 PA 451, entitled "An act to protect the environment and natural resources of the state; to codify, revise, consolidate, and classify laws relating to the environment and natural resources of the state; to regulate the discharge of certain substances into the environment; to regulate the use of certain lands, waters, and other natural resources of the state; to protect the people's right to hunt and fish; to prescribe the powers and duties of certain state and local agencies and officials; to provide for certain charges, fees, assessments, and donations; to provide certain appropriations; to prescribe penalties and provide remedies; and to repeal acts and parts of acts," by amending sections 20101, 20114d, 20114e, 20120a, and 20120b (MCL 324.20101, 324.20114d, 324.20114e, 324.20120a, and 324.20120b), sections 20101, 20114d, 20120a, and 20120b as amended by 2014 PA 542 and section 20114e as amended by 2014 PA 178, and by adding section 20120f.

The People of the State of Michigan enact:

Sec. 20101. (1) As used in this part:

- (a) "Act of God" means an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight.
- (b) "Agricultural property" means real property used for farming in any of its branches, including cultivating of soil; growing and harvesting of any agricultural, horticultural, or floricultural commodity; dairying; raising of livestock, bees, fish, fur-bearing animals, or poultry; turf and tree farming; or performing any practices on a farm as an incident to, or in conjunction with, these farming operations. Agricultural property does not include property used for commercial storage, processing, distribution, marketing, or shipping operations.
- (c) "All appropriate inquiry" means an evaluation of environmental conditions at a property at the time of purchase, occupancy, or foreclosure that reasonably defines the existing conditions and circumstances at the property in conformance with 40 CFR 312 (2014).
 - (d) "Attorney general" means the department of the attorney general.
- (e) "Background concentration" means the concentration or level of a hazardous substance that exists in the environment at or regionally proximate to a facility that is not attributable to any release at or regionally proximate to the facility. A person may demonstrate that a hazardous substance is not present at a level that exceeds background concentration by any of the following methods:
- (i) The hazardous substance complies with the statewide default background levels under table 2 as referenced in R 299.46 of the Michigan Administrative Code.

- (ii) The hazardous substance is listed in table 2, 3, or 4 of the department's 2005 Michigan background soil survey, is present in a soil type identified in 1 or more of those tables, and meets 1 of the following:
- (A) If a glacial lobe area in table 2, 3, or 4 lists an arithmetic or geometric mean for the hazardous substance that is represented by 9 or more samples, the concentration of that hazardous substance is the lesser of the following:
- (I) Two standard deviations of that mean for the soil type and glacial lobe area in which the hazardous substance is located.
- (II) The uppermost value in the typical range of data for the hazardous substance in table 1 of the department's 2005 Michigan background soil survey.
- (B) If a glacial lobe area in table 2, 3, or 4 lists a nonparametric median for the hazardous substance that is represented by 10 or more samples, the concentration of that hazardous substance is the lesser of the following:
 - (I) The 97.5 quantile for the soil type and glacial lobe area in which the hazardous substance is located.
- (II) The uppermost value in the typical range of data for the hazardous substance in table 1 of the department's 2005 Michigan background soil survey.
- (C) The concentration of the hazardous substance meets a level established using the 2005 Michigan background soil survey in a manner that is approved by the department.
- (iii) The hazardous substance is listed in any other study or survey conducted or approved by the department and is within the concentrations or falls within the typical ranges published in that study or survey.
 - (iv) A site-specific demonstration.
- (f) "Baseline environmental assessment" means a written document that describes the results of an all appropriate inquiry and the sampling and analysis that confirm that the property is or contains a facility. For purposes of a baseline environmental assessment, the all appropriate inquiry may be conducted or updated prior to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure.
 - (g) "Board" means the brownfield redevelopment board created in section 20104a.
- (h) "Certificate of completion" means a written response provided by the department confirming that a response activity has been completed in accordance with the applicable requirements of this part and is approved by the department.
 - (i) "Cleanup criteria for unrestricted residential use" means any of the following:
 - (i) Cleanup criteria that satisfy the requirements for the residential category in section 20120a(1)(a).
 - (ii) Cleanup criteria for unrestricted residential use under part 213.
- (iii) Site-specific cleanup criteria approved by the department for unrestricted residential use pursuant to sections 20120a and 20120b.
- (j) "Department" means the director or his or her designee to whom the director delegates a power or duty by written instrument.
 - (k) "Director" means the director of the department of environmental quality.
- (l) "Directors" means the directors or their designees of the departments of environmental quality, community health, agriculture and rural development, and state police.
- (m) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous substance into or on any land or water so that the hazardous substance or any constituent of the hazardous substance may enter the environment or be emitted into the air or discharged into any groundwater or surface water.
- (n) "Enforcement costs" means court expenses, reasonable attorney fees of the attorney general, and other reasonable expenses of an executive department that are incurred in relation to enforcement under this part.
- (o) "Environment" or "natural resources" means land, surface water, groundwater, subsurface strata, air, fish, wildlife, or biota within this state.
- (p) "Environmental contamination" means the release of a hazardous substance, or the potential release of a discarded hazardous substance, in a quantity which is or may become injurious to the environment or to the public health, safety, or welfare.
- (q) "Evaluation" means those activities including, but not limited to, investigation, studies, sampling, analysis, development of feasibility studies, and administrative efforts that are needed to determine the nature, extent, and impact of a release or threat of release and necessary response activities.
- (r) "Exacerbation" means the occurrence of either of the following caused by an activity undertaken by the person who owns or operates the property, with respect to contamination for which the person is not liable:
- (i) Migration of contamination beyond the boundaries of the property that is the source of the release at levels above cleanup criteria for unrestricted residential use unless a criterion is not relevant because exposure is reliably restricted as otherwise provided in this part.

- (ii) A change in facility conditions that increases response activity costs.
- (s) "Facility" means any area, place, parcel or parcels of property, or portion of a parcel of property where a hazardous substance in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use has been released, deposited, disposed of, or otherwise comes to be located. Facility does not include any area, place, parcel or parcels of property, or portion of a parcel of property where any of the following conditions are satisfied:
- (i) Response activities have been completed under this part or the comprehensive environmental response, compensation, and liability act, 42 USC 9601 to 9675, that satisfy the cleanup criteria for unrestricted residential use.
- (ii) Corrective action has been completed under the resource conservation and recovery act, 42 USC 6901 to 6992k, part 111, or part 213 that satisfies the cleanup criteria for unrestricted residential use.
- (iii) Site-specific criteria that have been approved by the department for application at the area, place, parcel of property, or portion of a parcel of property are met or satisfied and hazardous substances at the area, place, or property that are not addressed by site-specific criteria satisfy the cleanup criteria for unrestricted residential use.
- (iv) Hazardous substances in concentrations above unrestricted residential cleanup criteria are present due only to the placement, storage, or use of beneficial use by-products or inert materials at the area, place, or property in compliance with part 115.
- (v) The property has been lawfully split, subdivided, or divided from a facility and does not contain hazardous substances in excess of concentrations that satisfy the cleanup criteria for unrestricted residential use.
- (vi) Natural attenuation or other natural processes have reduced concentrations of hazardous substances to levels at or below the cleanup criteria for unrestricted residential use.
 - (t) "Feasibility study" means a process for developing, evaluating, and selecting appropriate response activities.
- (u) "Financial assurance" means a performance bond, escrow, cash, certificate of deposit, irrevocable letter of credit, corporate guarantee, or other equivalent security, or any combination thereof.
- (v) "Foreclosure" means possession by a lender of a property on which it has foreclosed on a security interest or the expiration of a lawful redemption period, whichever occurs first.
 - (w) "Fund" means the cleanup and redevelopment fund established in section 20108.
- (x) "Hazardous substance" means 1 or more of the following, but does not include fruit, vegetable, or field crop residuals or processing by-products, or aquatic plants, that are applied to the land for an agricultural use or for use as an animal feed, if the use is consistent with generally accepted agricultural management practices at the time of the application or stamp sands:
- (i) Any substance that the department demonstrates, on a case by case basis, poses an unacceptable risk to the public health, safety, or welfare, or the environment, considering the fate of the material, dose-response, toxicity, or adverse impact on natural resources.
- (ii) Hazardous substance as defined in the comprehensive environmental response, compensation, and liability act, 42 USC 9601 to 9675.
 - (iii) Hazardous waste as defined in part 111.
 - (iv) Petroleum as described as a regulated substance in section 21303.
- (y) "Interim response activity" means the cleanup or removal of a released hazardous substance or the taking of other actions, prior to the implementation of a remedial action, as may be necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment. Interim response activity also includes, but is not limited to, measures to limit access, replacement of water supplies, and temporary relocation of people as determined to be necessary by the department. In addition, interim response activity means the taking of other actions as may be necessary to prevent, minimize, or mitigate a threatened release.
 - (z) "Lender" means any of the following:
 - (i) A state or nationally chartered bank.
 - (ii) A state or federally chartered savings and loan association or savings bank.
 - (iii) A state or federally chartered credit union.
 - (iv) Any other state or federally chartered lending institution.
 - (v) Any state or federally regulated affiliate or regulated subsidiary of any entity listed in subparagraphs (i) to (iv).
- (vi) An insurance company authorized to do business in this state pursuant to the insurance code of 1956, 1956 PA 218, MCL 500.100 to 500.8302.
- (vii) A motor vehicle sales finance company subject to the motor vehicle sales finance act, 1950 (Ex Sess) PA 27, MCL 492.101 to 492.141, with net assets in excess of \$50,000,000.00.
 - (viii) A foreign bank.

- (ix) A retirement fund regulated pursuant to state law or a pension fund regulated pursuant to federal law with net assets in excess of \$50,000,000.00.
- (x) A state or federal agency authorized by law to hold a security interest in real property or a local unit of government holding a reversionary interest in real property.
- (xi) A nonprofit tax exempt organization created to promote economic development in which a majority of the organization's assets are held by a local unit of government.
 - (xii) Any other person that loans money for the purchase of or improvement of real property.
 - (xiii) Any person that retains or receives a security interest to service a debt or to secure a performance obligation.
- (aa) "Local health department" means that term as defined in section 1105 of the public health code, 1978 PA 368, MCL 333,1105.
- (bb) "Local unit of government" means a county, city, township, or village, an agency of a local unit of government, an authority or any other public body or entity created by or pursuant to state law. Local unit of government does not include this state or the federal government or a state or federal agency.
- (cc) "Method detection limit" means the minimum concentration of a hazardous substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix that contains the analyte.
 - (dd) "Migrating NAPL" means that terms as it is defined in section 21302.
 - (ee) "Mobile NAPL" means that term as it is defined in section 21302.
 - (ff) "NAPL" means that term as it is defined in section 21303.
- (gg) "No further action letter" means a written response provided by the department under section 20114d confirming that a no further action report has been approved after review by the department.
- (hh) "No further action report" means a report under section 20114d detailing the completion of remedial actions and including a postclosure plan and a postclosure agreement, if appropriate.
- (ii) "Nonresidential" means that category of land use for parcels of property or portions of parcels of property that is not residential. This category of land use may include, but is not limited to, any of the following:
 - (i) Industrial, commercial, retail, office, and service uses.
 - (ii) Recreational properties that are not contiguous to residential property.
 - (iii) Hotels, hospitals, and campgrounds.
 - (iv) Natural areas such as woodlands, brushlands, grasslands, and wetlands.
- (jj) "Operator" means a person who is in control of or responsible for the operation of a facility. Operator does not include either of the following:
- (i) A person who holds indicia of ownership primarily to protect the person's security interest in the facility, unless that person participates in the management of the facility as described in section 20101a.
 - (ii) A person who is acting as a fiduciary in compliance with section 20101b.
 - (kk) "Owner" means a person who owns a facility. Owner does not include either of the following:
- (i) A person who holds indicia of ownership primarily to protect the person's security interest in the facility, including, but not limited to, a vendor's interest under a recorded land contract, unless that person participates in the management of the facility as described in section 20101a.
 - (ii) A person who is acting as a fiduciary in compliance with section 20101b.
 - (11) "Panel" means the response activity review panel established under section 20114e.
 - (mm) "Permitted release" means 1 or more of the following:
 - (i) A release in compliance with an applicable, legally enforceable permit issued under state law.
 - (ii) A lawful and authorized discharge into a permitted waste treatment facility.
- (iii) A federally permitted release as defined in the comprehensive environmental response, compensation, and liability act, 42 USC 9601 to 9675.
- (nn) "Postclosure agreement" means an agreement between the department and a person who has submitted a no further action report that prescribes, as appropriate, activities required to be undertaken upon completion of remedial actions as provided for in section 20114d.
- (oo) "Postclosure plan" means a plan for land use or resource use restrictions or permanent markers at a facility upon completion of remedial actions as provided for in section 20114c.
- (pp) "Release" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of a hazardous substance into the environment, or the abandonment

or discarding of barrels, containers, and other closed receptacles containing a hazardous substance. Release does not include any of the following:

- (i) A release that results in exposure to persons solely within a workplace, with respect to a claim that these persons may assert against their employers.
 - (ii) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, or vessel.
- (iii) A release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in the atomic energy act of 1954, 42 USC 2011 to 2286i, if the release is subject to requirements with respect to financial protection established by the nuclear regulatory commission under 42 USC 2210, or any release of source by-product or special nuclear material from any processing site designated under 42 USC 7912(a)(1) or 42 USC 7942(a).
- (iv) If applied according to label directions and according to generally accepted agricultural and management practices at the time of the application, the application of a fertilizer, soil conditioner, agronomically applied manure, or pesticide, or fruit, vegetable, or field crop residuals or processing by-products, aquatic plants, or a combination of these substances. As used in this subparagraph, fertilizer and soil conditioner have the meaning given to these terms in part 85, and pesticide has the meaning given to that term in part 83.
- (v) Application of fruits, vegetables, field crop processing by-products, or aquatic plants to the land for an agricultural use or for use as an animal feed, if the use is consistent with generally accepted agricultural and management practices at the time of the application.
 - (vi) The relocation of soil under section 20120c.
- (vii) The placement, storage, or use of beneficial use by-products or inert materials at the site of storage or use if in compliance with part 115.
- (qq) "Remedial action" includes, but is not limited to, cleanup, removal, containment, isolation, destruction, or treatment of a hazardous substance released or threatened to be released into the environment, monitoring, maintenance, or the taking of other actions that may be necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, or to the environment.
 - (rr) "Remedial action plan" means a work plan for performing remedial action under this part.
- (ss) "Residential" means that category of land use for parcels of property or portions of parcels of property where people live and sleep for significant periods of time such that the frequency of exposure is reasonably expected or foreseeable to meet the exposure assumptions used by the department to develop generic residential cleanup criteria as set forth in rules promulgated under this part. This category of land use may include, but is not limited to, homes and surrounding yards, condominiums, and apartments.
- (tt) "Residential closure" means a property at which the contamination has been addressed in a no further action report that satisfies the limited residential cleanup criteria under section 20120a(1)(c) or the site-specific residential cleanup criteria under sections 20120a(2) and 20120b, that contains land use or resource use restrictions, and that is approved by the department or is considered approved by the department under section 20120d.
 - (uu) "Residual NAPL saturation" means that term as it is defined in part 213.
- (vv) "Response activity" means evaluation, interim response activity, remedial action, demolition, providing an alternative water supply, or the taking of other actions necessary to protect the public health, safety, or welfare, or the environment or the natural resources. Response activity also includes health assessments or health effect studies carried out under the supervision, or with the approval of, the department of community health and enforcement actions related to any response activity.
- (ww) "Response activity costs" or "costs of response activity" means all costs incurred in taking or conducting a response activity, including enforcement costs.
- (xx) "Response activity plan" means a plan for undertaking response activities. A response activity plan may include 1 or more of the following:
 - (i) A plan to undertake interim response activities.
 - (ii) A plan for evaluation activities.
 - (iii) A feasibility study.
 - (iv) A remedial action plan.
- (yy) "Security interest" means any interest, including a reversionary interest, in real property created or established for the purpose of securing a loan or other obligation. Security interests include, but are not limited to, mortgages, deeds of trusts, liens, and title pursuant to lease financing transactions. Security interests may also arise from transactions such as sale and leasebacks, conditional sales, installment sales, trust receipt transactions, certain assignments, factoring agreements, accounts receivable financing arrangements, consignments, or any other transaction in which evidence of title is created if the transaction creates or establishes an interest in real property for the purpose of securing a loan or other obligation.

- (zz) "Source" means any storage, handling, distribution, or processing equipment from which the release originates and first enters the environment.
- (aaa) "Stamp sands" means finely grained crushed rock resulting from mining, milling, or smelting of copper ore and includes native substances contained within the crushed rock and any ancillary material associated with the crushed rock.
- (bbb) "Target detection limit" means the detection limit for a hazardous substance in a given environmental medium that is specified in a rule promulgated by the department. The department shall identify 1 or more analytical methods, when a method is available, that are judged to be capable of achieving the target detection limit for a hazardous substance in a given environmental medium. The target detection limit for a given hazardous substance is greater than or equal to the method detection limit for that hazardous substance. In establishing a target detection limit, the department shall consider the following factors:
 - (i) The low level capabilities of methods published by government agencies.
 - (ii) Reported method detection limits published by state laboratories.
 - (iii) Reported method detection limits published by commercial laboratories.
 - (iv) The need to be able to measure a hazardous substance at concentrations at or below cleanup criteria.
- (ccc) "Threatened release" or "threat of release" means any circumstance that may reasonably be anticipated to cause a release.
 - (ddd) "Venting groundwater" means groundwater that is entering a surface water of this state from a facility.
 - (2) As used in this part:
- (a) The phrase "a person who is liable" includes a person who is described as being subject to liability in section 20126. The phrase "a person who is liable" does not presume that liability has been adjudicated.
 - (b) The phrase "this part" includes "rules promulgated under this part".

Sec. 20114d. (1) A person may submit a no further action report under this subsection for remedial actions addressing contamination for which the person is or is not liable. Remedial actions included in a no further action report may address all or a portion of contamination at a facility as follows:

- (a) The remedial actions may address 1 or more releases at a facility.
- (b) The remedial actions may address 1 or more hazardous substances at a facility.
- (c) The remedial actions may address contamination in 1 or more environmental media at a facility.
- (d) The remedial actions may address contamination within the entire facility or only a portion of a facility.
- (e) The remedial actions may address contamination at a facility through any combination of subdivisions (a) through (d).
- (2) A no further action report submitted under subsection (1) must document the basis for concluding that the remedial actions included in the no further action report are protective of the public health, safety, and welfare, and the environment with respect to the environmental contamination addressed by the remedial actions. A no further action report may include a request that, upon approval, the release or conditions addressed by the no further action report be designated as a residential closure. A no further action report shall be submitted with a form developed by the department. The department shall make this form available on its website.
 - (3) A no further action report submitted under subsection (1) shall be submitted with the following, as applicable:
- (a) If the remedial action at the facility satisfies the cleanup criteria for unrestricted residential use for the hazardous substances and portion of the facility addressed in the no further action report, neither a postclosure plan or a proposed postclosure agreement is required to be submitted.
- (b) If the remedial action requires only land use or resource use restrictions and financial assurance is not required or the financial assurance is de minimis, a postclosure plan is required but a proposed postclosure agreement is not required to be submitted.
- (c) For circumstances other than those described in subdivision (a) or (b), a postclosure plan and a proposed postclosure agreement are required to be submitted.
- (4) A proposed postclosure agreement that is submitted as part of a no further action report must include all of the following:
- (a) Provisions for monitoring, operation and maintenance, and oversight necessary to assure the effectiveness and integrity of the remedial action.
- (b) Financial assurance to pay for monitoring, operation and maintenance, oversight, and other costs determined by the department to be necessary to assure the effectiveness and integrity of the remedial action.
- (c) A provision requiring notice to the department of the owner's intent to convey any interest in the facility 14 days prior to consummating the conveyance. A conveyance of title, an easement, or other interest in the property shall not

be consummated by the property owner without adequate and complete provision for compliance with the terms and conditions of the postclosure plan and the postclosure agreement.

- (d) A provision granting the department the right to enter the property at reasonable times for the purpose of determining and monitoring compliance with the postclosure plan and postclosure agreement, including the right to take samples, inspect the operation of the remedial action measures, and inspect records.
 - (5) A postclosure agreement may waive the requirement for permanent markers.
- (6) The person submitting a no further action report shall include a signed affidavit attesting to the fact that the information upon which the no further action report is based is complete and true to the best of that person's knowledge. The no further action report must also include a signed affidavit from an environmental consultant who meets the professional qualifications described in section 20114e(2) and who prepared the no further action report, attesting to the fact that the remedial actions detailed in the no further action report comply with all applicable requirements and that the information upon which the no further action report is based is complete and true to the best of that person's knowledge. In addition, the environmental consultant shall attach a certificate of insurance demonstrating that the environmental consultant has obtained at least all of the following from a carrier that is authorized to conduct business in this state:
 - (a) Statutory worker compensation insurance as required in this state.
- (b) Professional liability errors and omissions insurance. This policy must not exclude bodily injury, property damage, or claims arising out of pollution for environmental work and must be issued with a limit of not less than \$1,000,000.00 per claim.
- (c) Contractor pollution liability insurance with limits of not less than \$1,000,000.00 per claim, if not included under the professional liability errors and omissions insurance required under subdivision (b). The insurance requirement under this subdivision is not required for environmental consultants who do not perform contracting functions.
- (d) Commercial general liability insurance with limits of not less than \$1,000,000.00 per claim and \$2,000,000.00 aggregate.
 - (e) Automobile liability insurance with limits of not less than \$1,000,000.00 per claim.
- (7) A person submitting a no further action report shall maintain all documents and data prepared, acquired, or relied upon in connection with the no further action report for not less than 10 years after the later of the date on which the department approves the no further action report under this section, or the date on which no further monitoring, operation, or maintenance is required to be undertaken as part of the remedial action covered by the report. All documents and data required to be maintained under this section shall be made available to the department upon request.
- (8) Upon receipt of a no further action report submitted under this subsection, the department shall approve or deny the no further action report or shall notify the submitter that the report does not contain sufficient information for the department to make a decision. If the no further action report requires a postclosure agreement, the department may negotiate alternative terms than those included within the proposed postclosure agreement. The department shall provide its determination within 150 days after the report was received by the department under this subsection unless the report requires public participation under section 20120d(2). If the report requires public participation under section 20120d(2), the department shall respond within 180 days. If the department's response is that the report does not include sufficient information, the department shall identify the information that is required for the department to make a decision. If the report is denied, the department's denial must, to the extent practical, state with specificity all of the reasons for denial. If the no further action report, including any required postclosure plan and postclosure agreement, is approved, the department shall provide the person submitting the no further action report with a no further action letter. The department shall review and provide a written response within the time frames required by this subsection for at least 90% of the no further action reports submitted to the department under this section in each calendar year.
- (9) If the department fails to provide a written response within the time frames required by subsection (8), the no further action report is considered approved.
- (10) A person requesting approval of a no further action report under subsection (8) may appeal the department's decision in accordance with section 20114e.
- (11) Any time frame required by this section may be extended by mutual agreement of the department and a person submitting a no further action report. An agreement extending a time frame must be in writing.
- (12) Following approval of a no further action report under this section, the owner or operator of the facility addressed by the no further action report may submit to the department an amended no further action report. The amended no further action report must include the proposed changes to the original no further action report and an accompanying rationale for the proposed change. The process for review and approval of an amended no further action report is the same as the process for no further action reports.

Sec. 20114e. (1) The director shall establish a response activity review panel to advise him or her on disputes.

- (2) The panel must consist of 15 individuals, appointed by the director. Each member of the panel must meet all of the following minimum requirements:
 - (a) Meet 1 or more of the following:
- (i) Hold a current professional engineer's or professional geologist's license or registration from a state, tribe, or United States territory, or the Commonwealth of Puerto Rico, and have the equivalent of 6 years of full-time relevant experience.
- (ii) Have a baccalaureate degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of 10 years of full-time relevant experience.
- (iii) Have a master's degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of 8 years of full-time relevant experience.
 - (b) Remain current in his or her field through participation in continuing education or other activities.
 - (3) An individual is not eligible to be a member of the panel if any of the following is true:
 - (a) The individual is a current employee of any office, department, or agency of this state.
- (b) The individual is a party to 1 or more contracts with the department and the compensation paid under those contracts represented more than 5% of the individual's annual gross revenue in any of the preceding 3 years.
- (c) The individual is employed by an entity that is a party to 1 or more contracts with the department and the compensation paid to the individual's employer under these contracts represented more than 5% of the employer's annual gross revenue in any of the preceding 3 years.
 - (d) The individual was employed by the department within the preceding 3 years.
- (4) An individual appointed to the panel serves for a term of 3 years and may be reappointed for 1 additional 3-year term. After serving 2 consecutive terms, the individual shall not be a member of the panel for a period of at least 2 years before being eligible to be appointed to the panel again. The terms for members first appointed must be staggered so that not more than 5 vacancies are scheduled to occur in a single year. Individuals appointed to the panel serve without compensation. However, members of the panel may be reimbursed for their actual and necessary expenses incurred in the performance of their official duties as members of the panel.
 - (5) A vacancy on the panel shall be filled in the same manner as the original appointment.
- (6) The business that the panel may perform shall be conducted at a public meeting of the panel held in compliance with the open meetings act, 1976 PA 267, MCL 15.261 to 15.275.
- (7) A person who submitted a response activity plan; remedial action plan; postclosure plan; a no further action report; a request for certificate of completion or documentation of due care compliance under this part; or an initial assessment report, final assessment report, closure report, or documentation of due care compliance under part 213 may appeal a decision made by the department regarding a dispute by submitting a petition to the director. However, an issue that was addressed as part of the final decision of the director under section 21332 or that is the subject of a contested case hearing under section 21332 is not eligible for review by the panel. The petition must include the issues in dispute, the relevant facts upon which the dispute is based, factual data, analysis, opinion, and supporting documentation for the petitioner's position. The petitioner shall also submit a fee of \$3,500.00. If the director believes that the dispute may be able to be resolved without convening the panel, the director may contact the petitioner regarding the issues in dispute and may negotiate a resolution of the dispute. This negotiation period must not exceed 45 days. If the dispute is resolved without convening the panel, any fee that is submitted with the petition shall be returned.
- (8) If a dispute is not resolved pursuant to subsection (7), the director shall schedule a meeting of 5 members of the panel, selected on the basis of their relevant expertise, within 45 days after receiving the original petition. If the dispute involves an underground storage tank system, at least 3 of the members selected must have relevant experience in the American Society for Testing and Materials risk-based corrective action processes described in part 213. A member selected for the dispute resolution process shall agree not to accept employment by the person bringing the dispute before the panel, or to undertake any employment concerning the facility in question for a period of 1 year after the decision has been rendered on the matter if that employment would represent more than 5% of the member's gross revenue in any of the preceding 3 years. The director shall provide a copy of all supporting documentation to members of the panel who will hear the dispute. An alternative member may be selected by the director to replace a member who is unable to participate in the dispute resolution process. Any action by the members selected to hear the dispute requires a majority of the votes cast. The members selected for the dispute resolution process shall elect a chairperson of the dispute resolution process. At a meeting scheduled to hear the dispute, representatives of the petitioner and the department must each be afforded an opportunity to present their positions to the panel. The fee that is received by the director along with the petition shall be forwarded to the state treasurer for deposit into the fund.
- (9) Within 45 days after hearing the dispute, the members of the panel who were selected for and participated in the dispute resolution process shall make a recommendation regarding the petition and provide written notice of the recommendation to the director of the department and the petitioner. The written recommendation must include the specific scientific or technical rationale for the recommendation. The panel's recommendation regarding the petition may

be to adopt, modify, or reverse, in whole or in part, the department's decision that is the subject of the petition. If the panel does not make its recommendation within this 45-day time period, the decision of the department is the final decision of the director.

- (10) Within 60 days after receiving written notice of the panel's recommendation, the director shall issue a final decision, in writing, regarding the petition. However, this time period may be extended by written agreement between the director and the petitioner. If the director agrees with the recommendation of the panel, the department shall incorporate the recommendation into its response to the response activity plan, no further action report, request for certificate of completion, initial assessment report, final assessment report, closure report, or documentation of due care compliance. If the director rejects the recommendation of the panel, the director shall issue a written decision to the petitioner with a specific rationale for rejecting the recommendation of the panel. If the director fails to issue a final decision within the time period provided for in this subsection, the recommendation of the panel shall be considered the final decision of the director. The final decision of the director under this subsection is subject to review pursuant to section 631 of the revised judicature act of 1961, 1961 PA 236, MCL 600.631.
- (11) Upon request of the director, the panel shall make a recommendation to the department on whether a member should be removed from the panel for noncompliance with this part. Prior to making this recommendation, the panel may convene a peer review panel to evaluate the conduct of the member.
- (12) A member of the panel shall not participate in the dispute resolution process for any appeal in which that member has a conflict of interest. The director shall select a member of the panel to replace a member who has a conflict of interest under this subsection. For purposes of this subsection, a member has a conflict of interest if a petitioner has hired that member or the member's employer on any environmental matter within the preceding 3 years.
 - (13) As used in this section:
- (a) "Dispute" means any disagreement over a technical, scientific, or administrative issue, including, but not limited to, disagreements over assessment of risk, response activity plans, remedial action plans, no further action reports, certificates of completion, documentation of due care compliance under this part, determinations of whether a person has submitted sufficient information for the department to make a decision regarding a submittal under this part or part 213, and initial assessment reports, final assessment reports, closure reports, postclosure plans, and documentations of due care compliance under part 213.
- (b) "Relevant experience" means active participation in the preparation, design, implementation, and assessment of remedial investigations, feasibility studies, interim response activities, and remedial actions under this part or experience in the American society for testing and materials risk-based corrective action processes described in part 213. This experience must demonstrate the exercise of sound professional judgment and knowledge of the requirements of this part or part 213, or both.

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 shall 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 pursuant to 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 such 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 Environmental Protection Agency determined that there was insufficient scientific data to do so when last evaluated by the 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) through (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, pursuant to 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. Upon completion of the assessment, the department shall conduct a

stakeholder process to obtain input. If, upon 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 shall 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 shall 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 shall be used to derive noncancer cleanup criteria. For the noncarcinogenic effects of a hazardous substance present in soils, the intake shall 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 shall 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 pursuant to section 5 of the safe drinking water act, 1976 PA 399, MCL 325.1005, or (b) the national secondary drinking water regulations established pursuant to 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 of 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 shall 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 appropriate 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 pursuant to 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 2692.

- (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) shall 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 pursuant to subsection (1) shall 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 such 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 pursuant to 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 upon 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 prior to 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 thereof that is based on the plan, request, or document, unless either of the following occur:
 - (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 upon 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 prior to 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 occur:
 - (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) through (d), an owner's or operator's obligations under section 20107a shall be based upon the current numeric cleanup criteria under section 20120a(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-solvation.
- (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 pursuant to 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, 1969 PA 306, MCL 24.239. The rule-making request shall only include the revisions necessary to promulgate the new generic cleanup criteria. The new generic cleanup criteria published pursuant to 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 pursuant to this subsection remain effective and legally enforceable until replaced by a final rule or, until the director directs the department to withdraw the rule request under section 66(11) of the administrative procedures act, 1969 PA 306, MCL 24.266, or the time limitation in either section 45(1) or section 66(12) of the administrative procedures act, 1969 PA 306, MCL 24.245 and 24.266, is not met.

Sec. 20120b. (1) Subject to subsection (4), the department shall approve numeric or nonnumeric site-specific criteria in a response activity under section 20120a if such criteria, in comparison to generic criteria, better reflect best available information concerning the toxicity or exposure risk posed by the hazardous substance or other factors.

- (2) Site-specific criteria approved under subsection (1) may, as appropriate:
- (a) Use the algorithms for calculating generic criteria established by rule or propose and use different algorithms.
- (b) Alter any value, parameter, or assumption used to calculate generic criteria, with the exception of the risk targets specified in section 20120a(4).

- (c) Take into consideration the depth below the ground surface of contamination, which may reduce the potential for exposure and serve as an exposure barrier.
- (d) Be based on information related to the specific facility or information of general applicability, including peer-reviewed scientific literature.
 - (e) Use probabilistic methods of calculation.
 - (f) Use nonlinear-threshold-based calculations where scientifically justified.
 - (g) Take into account a land use or resource use restriction.
- (3) If there is not a generic cleanup criterion for a hazardous substance in regard to a relevant exposure pathway, releases of the hazardous substance may be addressed through any of the following means, singly or in combination:
- (a) Eliminate exposure to the hazardous substance through removal, containment, exposure barriers, or land use or resource use restrictions.
- (b) If another hazardous substance is expected to have similar fate, mobility, bioaccumulation, and toxicity characteristics, apply the cleanup criteria for that hazardous substance as a surrogate. Before using a surrogate, the person shall notify the department, provide a written explanation why the surrogate is suitable, and request approval. If the department does not notify the person that it disapproves the use of the chosen surrogate within 90 days after receipt of the notice, the surrogate is considered approved. A hazardous substance may be used as a surrogate for a single hazardous substance or for a class or category of hazardous substances.
- (c) For venting groundwater, use a modeling demonstration, an ecological demonstration, or a combination of both, consistent with section 20120e(9) and (10), to demonstrate that the hazardous substance is not likely to migrate to a surface water body or has not or will not impair the existing or designated uses for a surface water body.
- (d) If toxicity information is available for the hazardous substance, develop site-specific cleanup criteria for the hazardous substance pursuant to subsections (1) and (2), or develop simplified site-specific screening criteria based upon toxicity and concentrations found on site, and request department approval. If the department does not notify the person that it disapproves the site-specific criteria or screening criteria within 90 days after receipt of the request, the criteria are considered approved.
 - (e) Any other method approved by the department.
- (4) Site-specific criteria approved by the department are not invalidated by subsequent changes to the generic criteria for that hazardous substance, including changes to toxicity, exposure, or other values or variables used by the department to calculate the generic criteria.

Sec. 20120f. (1) To satisfy the requirements of this part, a person may evaluate, address, and manage the vapor intrusion to the indoor air inhalation exposure pathway for a hazardous substance using any of the following methods:

- (a) Meeting all of the conditions in section 20120a(18).
- (b) For purposes of evaluating and addressing the vapor intrusion to the indoor air inhalation pathway in connection with any release of petroleum as described as a regulated substance defined in section 21303(h)(ii), the process outlined in the Interstate Technology Regulatory Council petroleum vapor intrusion guidance document (PVI-1, Oct-14).
- (c) An approach, using multiple lines of evidence, demonstrating that the vapor intrusion to the indoor air inhalation exposure pathway does not pose an unacceptable risk to the public health, safety, or welfare, or the environment consistent with all or a combination of 1 or more of the following:
- (i) The United States Environmental Protection Agency "OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air" (OSWER Publication 9200.2-154, June 2015).
 - (ii) The Interstate Technology Regulatory Council petroleum vapor intrusion guidance document (PVI-1, Oct-14).
- (iii) The United States Environmental Protection Agency's "Documentation for EPA's Implementation of the Johnson and Ettinger Model to Evaluate Site Specific Vapor Intrusion into Buildings Version 6.0" (USEPA, September 2017).
- (d) Indoor air sampling that accounts for actual site conditions and demonstrates acceptable indoor air concentrations resulting from vapor intrusion compared to any of the following:
- (i) When criteria in subparagraph (ii) are not available, regional screening levels published by the United States Environmental Protection Agency that are applicable to residential or nonresidential land use, as appropriate, at cancer and noncancer risk levels specified in section 20120a(4).
 - (ii) Applicable indoor air inhalation generic cleanup criteria promulgated by the department.
 - (iii) Site-specific criteria approved by the department.
- (e) An alternative method or model for assessing vapor intrusion risk that utilizes only site-specific variables or a combination of site-specific or building-specific variables if the method or model is scientifically sound and supported by

adequate site information. An alternative method or model under this subdivision to address contamination that has migrated beyond the boundaries of the property that is the source of the release must be approved by the department.

- (f) A method or model allowed in a promulgated rule.
- (2) The indoor air inhalation pathway is not a reasonable and relevant pathway for purposes of response activities undertaken under this part if there is no occupied building or planned occupied building that is within the following distances from subsurface volatile hazardous substance contamination:
- (a) For petroleum contamination, within both a 30-foot lateral separation distance and the permissible vertical separation distance under the Interstate Technology Regulatory Council petroleum vapor intrusion guidance document (PVI-1, Oct-14).
- (b) For any volatile hazardous substance contamination other than petroleum, within both a 100-foot lateral separation distance and a 100-foot vertical separation distance.
- (3) If there is an occupied building or planned occupied building within the distances from subsurface volatile hazardous substance contamination in subsection (2), the indoor air inhalation pathway is not necessarily a reasonable and relevant pathway; rather, further evaluation is needed to determine whether the indoor air inhalation pathway is reasonable and relevant considering site-specific factors such as site-specific geology or hydrogeology, measured contaminant concentrations, the existence of institutional controls, including land use or resource use restrictions, or the existence of exposure controls, exposure barriers, or other mitigating factors, including building ventilation or use.

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This act is ordered to take immediate effect.	My T Cobb
	Secretary of the Senate
	Clerk of the House of Representatives
Approved	
Governor	