

Proposed Part 201 Rule Revisions Released

The Michigan Department of Environmental Quality (MDEQ) has released very extensive proposed revisions to the rules implementing Part 201 (Environmental Response) of the Michigan Natural Resources and Environmental Protection Act (NREPA). MDEQ states in the Regulatory Impact Statement filed with the Office of Regulatory Reform (ORR) for the rules package, designated as 1995-020 EQ, that the rule revisions are being made to conform the rules to the extensive revisions to Part 201 enacted by the Legislature in 1995 and 1996. The proposed revisions also rescind a number of rules that were made obsolete by the 1995/1996 legislation. It should be noted that many of the revisions represent a codification, as enforceable rules, of the policies that MDEQ has been implementing through guidance documents since enactment of the 1995/1996 legislation.

The Part 201 rules are divided into ten subject area-based parts. MDEQ has proposed revisions to all ten parts of the Part 201 rules. A copy of the proposed rules may be obtained from the ORR's Web site: www.state.mi.us/orr. The proposed rules are currently characterized by MDEQ as "preliminary" because they need to undergo review by ORR and the Legislative Service Bureau to assure that they are in the correct style and format before they may be published in the Michigan Register. At the time of this writing, MDEQ had not yet announced a date or location for public hearings on the proposed rules or a deadline for submission of public comments.

The great bulk of the proposed revisions are to Part 5, Response Activities, and Part 7, Cleanup Criteria and Remedial Action Requirements, of the Part 201 Rules. This

article addresses the proposed revisions to the Part 7 rules. The remaining proposed revisions will be discussed in a subsequent article.

Briefly, under Part 201, a “facility” is any place where a released hazardous substance comes to be located in excess of the generic residential cleanup criteria. Part 201 provides that MDEQ may establish land use based cleanup criteria for various categories of land use, including residential, commercial, and industrial. Part 7 of the proposed rules also contains provisions concerning the content of remedial action plans (RAPs) and the formulae for calculating the generic land use based cleanup criteria that are currently published by MDEQ in Attachment A to Operational Memorandum No. 18.

Remedial Action Plans

Proposed Rules 705 through 706a address the requirements for RAPs to address hazardous substance contamination present at a facility under Part 201.

Proposed Rule 706 generally describes the information to be contained in a RAP. A person who proposes to implement a response activity that is expected to be the final response activity for a facility must document in the RAP that the cleanup criteria proposed to be relied upon are appropriate for the facility, taking into consideration land use, anticipated activity patterns, and other factors. The RAP must identify the relevant exposure pathways and applicable cleanup criteria consistent with Rule 706a (discussed below). If a remedial action relies upon the generic commercial, industrial, or recreational cleanup criteria developed by MDEQ, the RAP must include a statement confirming that the expected activity patterns at the facility are consistent with the exposure assumptions made by MDEQ in calculating the applicable generic cleanup criteria.

If a RAP relies on generic cleanup criteria other than the generic residential cleanup criteria, the RAP must include documentation of the current zoning of the property. The RAP must also include a statement confirming that the use of the property contemplated is allowed under the current zoning and uses inconsistent with the exposure scenarios used by MDEQ in calculating the applicable generic cleanup criteria are prohibited under that zoning. If the property is not zoned, the RAP must document the reasonably foreseeable future uses of the property and the remedial action will be considered to be a site-specific remedy.

If MDEQ has evidence that a generic cleanup criterion is not protective of the public health, safety, welfare or the environment at a facility due to site-specific conditions, MDEQ may require additional response activity to address those conditions. A person implementing a remedial action without MDEQ approval (Part 201 allows a person to implement remedial action without MDEQ's approval) must engage in a reasonable inquiry to determine if such site-specific conditions exist and modify the response activity in order to take them into account.

A RAP for a facility relying on generic commercial or industrial cleanup criteria must state whether there is, or is likely to be, exposure to environmental contamination from the facility at adjacent or nearby properties exceeding the generic criteria applicable to the adjacent or nearby property. If such an exposure exists or is likely, then the RAP must include response activity to adequately address such exposures which are reasonably likely to occur.

Proposed Rule 706a provides that a person preparing a RAP shall identify which of the following exposure pathways and other risks and conditions are relevant at the facility under consideration:

- free phase liquids and abandoned/discarded hazardous substances not yet dispersed in the environment;
- the risk of exposure to hazardous substances in groundwater through its use as drinking water;
- the risk of exposure to hazardous substances in groundwater through dermal contact with the groundwater;
- the risk posed by hazardous substances in groundwater “venting” to surface water;
- the risk of exposure to hazardous substances in soils through direct contact with the soil;
- the risk of exposure through inhalation of hazardous substances in soil emitted and dispersed to the ambient air;
- the risk of exposure to hazardous substances leaching from soil to drinking water;
- the risk of exposure to hazardous substances leaching from soil to groundwater and subsequent dermal contact with the groundwater;
- the risk of exposure to hazardous substances leaching from soil to groundwater and the subsequent venting of the groundwater to surface water;
- the risk of hazardous substances in soil being transported to surface water through erosion, runoff, or similar means;

- the risk of hazardous substances in surface water sediments;
- the risks due to acute toxic effects, physical hazards, and other hazards not accounted for by the generic cleanup criteria with respect to a hazardous substance; and
- the risks due to impacts on terrestrial flora and fauna, the food chain, and aesthetic characteristics by hazardous substances.

Proposed Rule 706a also provides that a RAP must identify the relevant pathways for which analytical data collected from the facility reveal that the generic residential cleanup criteria are exceeded and which criteria were used for comparison. If a generic residential cleanup criterion is not available for a relevant pathway at a facility, the RAP must explain whether response activity is necessary to address that pathway in a manner protective of public health, safety, welfare, and the environment.

A RAP must describe how the RAP will control the risks in each exposure pathway where the generic residential cleanup criteria are exceeded or if another condition or risk described under the Part 201 rules requires control. If the RAP proposes to rely on generic commercial, generic industrial, limited commercial or industrial, or site-specific cleanup criteria, then the RAP must also compare site data to those criteria. Further, the RAP must also explain the basis for determining that any exposure pathways are not relevant at a facility.

Calculation of Generic Cleanup Criteria

The provisions for determining the applicable generic soil cleanup criteria within each applicable land use category – residential, commercial, and industrial – are contained in proposed Rules 718 through 726. Proposed Rule 720 contains the equations

for calculating the generic direct contact soil cleanup criteria. Proposed Rule 726, which contains the equations for calculating the generic ambient air inhalation cleanup criteria, also provides that the inhalation of hazardous substances in ambient air shall be considered a reasonable and relevant pathway for all facilities.

The provisions for determining the applicable generic groundwater cleanup criteria (drinking water, direct contact, venting to surface water) and calculating those criteria are contained in proposed Rules 708 through 716. The human exposure assumptions for the drinking water based groundwater cleanup criteria, i.e., how much water is consumed how frequently and for how many years, vary between residential and the combined commercial and industrial land use categories. All land use categories are treated the same for purposes of the exposure assumptions for the direct contact and groundwater venting to surface water generic cleanup criteria.

Groundwater Surface Water Interface Cleanup Criteria

One of the more potentially contentious issues is contained in proposed Rule 716, which addresses the cleanup criteria for groundwater based on the groundwater “venting” hazardous substances to surface water. The point where groundwater vents to surface water is referred to as the “groundwater surface water interface,” or GSI. Section 20120a(15) of Part 201 directs that a remedial action which allows groundwater to vent to the surface water must comply with the requirements of Part 31 (Water Resources Protection) of NREPA and the rules promulgated under Part 31. Proposed Rule 716(2) directs MDEQ to identify the water quality standards that shall constitute the generic GSI cleanup criteria in order to demonstrate compliance with Section 20120a(15) of Part 201. The same provision also directs that water quality standards and the resulting

generic GSI shall be reviewed every five years after the implementation date of a response activity. The response activity must be revised as necessary to comply with any new water quality standards or generic GSI criteria derived from those water quality standards. This proposed requirement would appear to effectively leave indefinitely open any remedies that involve groundwater venting to surface water.

The proposed rule provides that the GSI pathway of exposure shall be considered to be relevant for all land use based cleanup categories (e.g., residential, commercial, industrial) unless it is demonstrated that groundwater is reasonably not expected to vent to surface water at concentrations exceeding the generic GSI criteria. Proposed Rule 716(3) lists a number of factors to be considered in determining whether the GSI pathway is relevant, several of which include:

- whether there is a hydraulic connection between the groundwater and surface water;
- the proximity of the surface water to the contaminated groundwater currently exceeding or which may in the future exceed the GSI criteria;
- the direction of groundwater migration;
- the mass of hazardous substances present at the facility that may affect the groundwater; and
- the presence and potential for artificial structures which could alter hydraulic pathways, including sewers and seawalls.

The last of the factors listed above is very controversial because the regulated community is concerned that MDEQ will require extensive investigation of sanitary and storm sewers and their excavation zones in order rule out the possibility that they are

serving as conduits for groundwater to reach surface water, even in urban settings. For non-sewer locations, that is, where groundwater is venting directly to surface water, the proposed rules direct that monitoring wells to determine compliance with the GSI criteria shall be installed as close as practical to the surface water in locations that are representative of groundwater that is entering the surface water and not the surface water itself. The proposed rules also direct where groundwater monitoring wells shall be installed in the case of groundwater indirectly venting to surface water. Monitoring wells must be established at one of the following locations, known as “indirect” GSI monitoring points:

- in the saturated zone as close as practical to the sewer or other conveyance where it can be demonstrated that the groundwater is flowing toward the sewer; or
- at another point that allows for sampling of groundwater that is representative of the groundwater entering the sewer or other conveyance. A person relying on such an alternate indirect GSI monitoring point must document the basis for selecting the alternate point and that it is practical to monitor the point with sufficient frequency to ensure compliance with Part 31 and the Part 201 rules.

Under both the direct and indirect venting scenarios, the proposed rules direct that, for purposes of determining compliance with the GSI cleanup criteria, the samples collected from the GSI monitoring points be compared to the generic GSI cleanup criteria, or “mixing zone” based GSI cleanup criteria, or other applicable water quality standards. When a “mixing zone” is employed, the receiving surface water is allowed to

exceed an applicable water quality criterion within the area of the mixing zone under the theory that, by mixing with the receiving waters within the zone, the discharge will be sufficiently diluted to meet the water quality criterion beyond the borders of the mixing zone. Mixing zones are commonly allowed for end-of-pipe discharges under Part 31 and Part 31 specifically provides that they shall also be allowed for venting groundwater under an approved Part 201 RAP.

With respect to groundwater venting to a sewer or other conveyance, compliance with the GSI criterion is measured at the “indirect” GSI monitoring point adjacent to the sewer in order to establish compliance at the point of discharge to surface water, i.e., where the sewer or other conveyance ultimately discharges to surface water. That is, unlike circumstances where groundwater vents directly to surface water, compliance with the GSI criterion may be determined at a point very distant from the point where venting groundwater actually enters the surface water and would not take into account any further dilution that occurred in the sewer.

Additional portions of the proposed rules will be discussed in a future article.

Brian J. Negele