Notice of Proposed Rulemaking
Department of Environmental Protection
Environmental Quality Board
(25 Pa. Code, Chapter 250)
(Administration of the Land Recycling Program)

Preamble

The Environmental Quality Board (Board) proposes to amend 25 Pa. Code, Chapter 250 (relating to Administration of the Land Recycling Program). The amendments update the Statewide health standards by using current EPA guidance and updated toxicological information. The proposal also corrects errors and codifies certain established policies into regulation.

This proposal was adopted by the Board at its meeting of _____.

A. Effective Date

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as final rulemaking.

B. Contact Persons

For further information contact Troy Conrad, Director, Land Recycling Program, P.O. Box 8471, Rachel Carson State Office Building, Harrisburg, PA 17105-8471, (717) 783-7816, or Kurt Klapkowski, Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposal appears in Section J of this preamble. Persons with a disability may use the AT&T Relay Service by calling 1-800-654-5984 (TDD users) or 1-800-654-5988 (voice users). This proposal is available electronically through the DEP Web site (http://www.depweb.state.pa.us).

C. Statutory Authority

This rulemaking is being made under the authority of sections 104(a) and 303(a) of the Land Recycling Act (35 P. S. §§ 6026.104(a) and 6026.303(a)), and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20). Section 104(a) of the Land Recycling Act authorizes the Board to adopt Statewide health standards, appropriate mathematically valid statistical tests to define compliance with the Land Recycling Act and other regulations that may be needed to implement the provisions of the Land Recycling Act. Section 303(a) of the Land Recycling Act authorizes the Board to promulgate Statewide health standards for regulated substances for each environmental medium and methods used to calculate the standards. Section 1920-A

authorizes the Board to formulate, adopt and promulgate rules and regulations that are necessary for the proper work of the Department.

D. Background and Purpose

The primary purpose for this proposed rulemaking is to update the standards related to cleanup of contaminated sites under the Land Recycling and Environmental Remediation Standards Act (Land Recycling Act). The Land Recycling Act requires the Environmental Quality Board (Board) to establish by regulation uniform Statewide health-based standards so that any substantial present or probable future risk to human health and the environment is eliminated. The original standards were promulgated in 1997 and codified in Chapter 250. Section 104(a) of the Land Recycling Act explicitly recognizes that such standards would need to be updated over time as better science became available and as the need for clarification or enhancement of the program became apparent. Updating the standards serves the public as the Department is able to use the most up-to-date health and scientific information to establish the cleanup standards. In addition, the changes in standards serve both the public and the regulated community as they provide clear information on what is or will be done at contaminated sites. This gives the public notice and provides remediators with a clear endpoint to the remediation process. Several amendments are currently part of guidance, but are proposed for addition to Chapter 250 to give the requirements the legal status of a binding norm, which should lead to greater consistency and clarity across the Commonwealth.

The proposal was discussed and approved with unanimous support at the Cleanup Standards Scientific Advisory Board (CSSAB) board meeting held on September 1, 2009; however, subsequent to the CSSAB's review, the Department reconsidered changes to the Statewide health standards initially considered for Methyl Tertiary Butyl Ether (MTBE) and decided not to propose any changes for MTBE at this time. The current Chapter 250 Statewide health cleanup standard for MTBE is 20 ug/l for groundwater used for drinking water. This 20 ug/l standard is the odor threshold for MTBE as published by the U.S. Environmental Protection Agency in the *"2006 Edition of the Drinking Water Standards and Health Advisories"* (EPA 822-R-06-013). The Department has decided that the previously considered revisions for MTBE included in the September 1, 2009 draft, which allowed for higher concentrations of MTBE based on health based calculations, would have resulted in unacceptable taste and odor impacts on groundwater used for drinking water. The CSSAB reviewed the revised regulations on November 19, 2009, and while the CSSAB is supportive of the overall rulemaking, it opposes the standards for MTBE, as contained in the proposal, because they do not reflect specific health-based criteria from Act 2.

E. Summary of Regulatory Requirements

§250.1. Definitions.

For three definitions in this section only an explanation of what the abbreviation meant was originally provided. This section has been modified to include a definition for "EQL - Estimated Quantitation Limit," "NPDES - National Pollutant Discharge Elimination System" and "PQL - Practical Quantitation Limit." A fourth definition, for "environmental covenant," was added due to the passage of the Uniform Environmental Covenants Act (27 Pa.C.S. § 6501-6517) (UECA).

§250.11. Periodic Review of MSCs.

This new section describes the department's intent to keep the medium-specific concentrations (MSCs) in Appendix A to Chapter 250 current by proposing appropriate changes based on new scientific information that relates to the basis of the MSCs at least every three years.

§250.301. Scope.

In January 2009, the EPA issued a revised methodology for calculating the risk from regulated substances at Superfund sites by developing a new document "*Risk Assessment for Superfund (RAGS), Volume I, Part F*." (RAGS). A new subparagraph (b) was added to identify those regulated substances that the EPA has determined to be mutagens in the RAGS. The new methodology for calculating MSCs for these substances is described in Sections 250.306 (relating to ingestion numeric values) and 250.307 (relating to inhalation numeric values).

§250.303. Aquifer determination; current use and currently planned use of aquifer groundwater.

The language of Section 250.303(d)(3)(i) was modified to change the previously undefined terminology "acknowledged within the deed" to terminology defined under the UECA.

§250.304. MSCs for groundwater.

The proposed rulemaking clarifies that maximum contaminant levels (MCLs) and lifetime health advisory levels (HALs) promulgated by the department or the EPA are immediately effective upon promulgation.

This section further clarifies the need for a remediator to address the potential intrusion of vapors from contaminated groundwater into buildings when conducting a Statewide health standard remediation under Chapter 250.

§ 250.305. MSCs for Soil.

Similar to the clarification in Section 250.304 (relating to MSCs for groundwater), this section further clarifies the need for a remediator to address the potential intrusion of

vapors from contaminated soil into buildings when conducting a Statewide health standard remediation under Chapter 250.

§ 250.306. Ingestion numeric values, and
§ 250.307. Inhalation numeric values.

The new formulas referenced in RAGS, Volume I, Part F represent an update by EPA of its methodology to calculate inhalation risks, originally proposed in RAGS Part A. The key difference between RAGS Part F and RAGS Part A is the use of exposure estimates (i.e., air concentration metrics) that are inhalation route-specific (e.g., in ug/m^3) rather than ones converted to chronic "air intake" (e.g., mg/kg-day).

The update to RAGS was necessary to ensure that the calculation of risk estimates from inhaled chemicals is consistent with EPA's currently recommended approach to developing inhalation toxicity values, i.e., inhalation reference concentration (RfCi, e.g., mg/m^3) and inhalation unit risk (IUR, e.g., $(ug/m^3)^{-1}$). The approach to calculating inhalation toxicity values is referenced in EPA's Inhalation Dosimetry Methodology, *Methods for Derivation of Inhalation Reference Concentrations (RfCs) and Application of Inhalation Dosimetry.* (U.S. Environmental Protection Agency, Office of Research and Development, Office of Health and Environmental Assessment, Washington, DC, EPA/600/8-90/066F, October 1994). The methodology assumes continuous exposure and is designed such that it yields toxicity values that sufficiently cover potential age and activity related variation in inhalation exposure (RAGS, Volume I, Part F, Page A-2, Second Bullet). The exception is for chemicals that may act as mutagens and for which susceptibility is not incorporated into the IUR. A separate adjustment factor is needed where early childhood exposures are to be evaluated.

For those substances classified as mutagens, the new inhalation methodology applies Age Dependent Adjustment Factors in the calculations. These substances are identified in Section 250.301(b) (relating to scope) of the proposed regulations.

Except for the MSCs of those regulated substances that have been determined to cause cancer by a mutagenic mode of action, most of the soil and groundwater MSCs that are controlled by inhalation risks increased in value by using this new inhalation methodology. The soil and groundwater MSCs for mutagens have generally decreased in values as a result of using this new inhalation methodology

§ 250.308. Soil to groundwater pathway numeric values.

This corrects an omitted reference to one of the tables that contains the soil to groundwater values. No practical change in current practice is expected.

§ 250.407. Point of Compliance.

This proposed change corrects a mistaken reference to soil to groundwater values on site-specific standard sites. No practical change in current practice is expected.

§ 250.605. Sources of toxicity information.

In addition to including new inhalation toxicity values (i.e., inhalation reference concentration and inhalation unit risk) as required by RAGS, Volume I, Part F, the proposed changes also include an update to the hierarchy of toxicity values. This update to the hierarchy of toxicity values is necessary in order to comply with EPA guidance developed since the last update to Chapter 250 and titled *Memorandum, Human Health Toxicity Values in Superfund Risk Assessments* (OSWER Directive 9285.7-53, December 5, 2003).

§ 250.704. General attainment requirements for groundwater.

The department recognizes that at the time of site assessment, many sites have groundwater contamination below a standard. In such cases, remediators desire the liability protection afforded by Chapter 5 of Act 2, yet there is little scientific value in requiring additional attainment monitoring for the 8 quarters required by Subchapter G of the current regulations. The proposed change provides that the department may consider the site assessment data as part of the information to be used to demonstrate attainment of a standard. This change fixes a problem in the construction of the rule requirements, and will allow remediators to more easily attain a standard without compromising public health.

§ 250.707 Statistical tests

Section 250.707(b)(iii) applies to remediations where full site characterization has not been completed prior to remediation. This provision applies specifically to remediations of petroleum releases which typically result in visually observable contamination. This section provides for a reduced number of samples to demonstrate attainment, subject to a no exceedance rule rather than the application of statistical tests to demonstrate attainment. Section 250.707(b)(iv) was originally intended to fall under this provision, but as currently structured in the regulation, it applies to any remediation under the Statewide health standard. The proposed amendment places this provision within the structure of the requirements for petroleum releases without full site characterization where it was originally intended to be.

Appendix A, Tables 1-5

Since November 24, 2001, when the previous amendment was finalized, toxicology information in the references stated in Section 250.605 (relating to sources of toxicity information) and physical and chemical property data listed in Table 5 have been revised for some substances. Additionally, some substances that were not listed in Tables 1-5, but that now have toxicology information available were recommended for inclusion in Tables 1-5 by the CSSAB. Some of these substances had previously been on Table 6, Threshold of Regulation MSCs; these substances have been moved to the appropriate Tables 1-5. Typographical errors were corrected.

F. Benefits, Costs and Compliance

Benefits

The Department and Board are required to update the cleanup standard concentration values and the associated toxicological data in a timely manner in order to assure that environmental response actions at contaminated sites are remediated based on the current EPA guidance and current toxicological information.

Meeting this responsibility in these proposed regulations assures the protection of the public health and environment relating to exposure to regulated substances where it has been determined that lower concentrations of a regulated substances are required to meet the standards established by the statute.

These proposed regulations also avoid unnecessary expense for remediators when remediating contaminated property where it has been determined that higher concentrations of regulated substances are protective and meet the standards established by the statute.

Compliance Costs

These technical amendments to the Land Recycling regulations will affect owners, operators and purchasers of properties and facilities who volunteer or are required to perform remediation of contaminated sites.

These changes are not expected to add any significant costs to the cleanup of contaminated sites under this program. Some cleanup standard concentration values will be lower and some will be higher. The net cost should be negligible.

Compliance Assistance Plan

The department has regularly provided the regulated public with workshops to explain new regulations, guidance and policy. These are conducted on an average of every one to two years. Workshops will be planned to coincide with the finalization of this rule.

Paperwork Requirements

No forms or reports are required beyond those established by Act 2.

G. Pollution Prevention

As this program assumes pollution has taken place, minimizing the release is not an option. However, in remediating a site, potential sources of pollution are often removed in order to attain the Act 2 standards, thus eliminating or minimizing the potential for future exposure to regulated substances.

H. Sunset Review

This regulation will be reviewed in accordance with the sunset review schedule published by the department to determine whether the regulation effectively fulfills the goals for which it was intended.

I. Regulatory Review

Under Section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on ___(blank), the department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the department has provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the department. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey any comments, recommendations or objections to the proposed regulations within 30 days of the close of the public comment period. The comments, recommendations or objections shall specify the regulatory review criteria that have not been met. The Act specifies detailed procedures for review of these issues by the department, the General Assembly and the Governor prior to final publication of the regulations.

J. Public Comments

Written Comments - Interested persons are invited to submit comments, suggestions, or objections regarding the proposed regulation to the Environmental Quality Board, P.O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by _(blank)_ (within __ days of publication in the *Pennsylvania Bulletin).* Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by _(blank)_ (within __days following publication in the *Pennsylvania Bulletin).* The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final regulation will be considered.

Electronic Comments - Comments may be submitted electronically to the Board at RegComments@state.pa.us and must also be received by the Board by ___(date)__. A subject heading of the proposal and a return name and address must be included in each transmission. If the sender does not receive an acknowledgement of electronic comments within two working days, the comments should be retransmitted to ensure receipt.

BY:

JOHN HANGER
Chairperson
Environmental Quality Board