The Remediation Standards
N.J.A.C. 7:26D
Proposal to Amend

External Stakeholder Meeting
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Purpose

- Intent of the current effort is to amend the 2008 remediation standards (N.J.A.C. 7:26D) which are scheduled to sunset June 2, 2015
- The External Stakeholder Meeting will promote understanding of the potential proposal and allow identification of issues and concerns that affected parties may have
- Describe the external stakeholder process

Agenda

- Describe the proposal in a broad sense
- Detail the underlying principles of the approach
- List steps taken to date and future steps
- Identify some of the notable aspects
- Provide specifics related to pathway/contaminant

Remediation Standards Proposal
Extension of June 2008 Standards

- Soil standards
  - Ingestion/Dermal pathway
  - Inhalation pathway
- Ground water quality standards (by reference)
- Surface water quality standards (by reference)

Remediation Standards Proposal
Beyond June 2008 Standards

- Vapor intrusion pathway standards
- Impact to ground water pathway standards
- Dioxin standards
- Extractable petroleum hydrocarbon standards

- The new effort consists of two independent parts:
  - The proposal to amend the existing N.J.A.C. 7:26D and
  - The readoption without change by notice of N.J.A.C. 7:26D

General Principles

- Focus will be the generation of remediation standards (to include interim and alternative) and not compliance
- Stay consistent with the requirements of the Brownfield and Contaminated Site Remediation Act N.J.S.A. 58:10B-12
- Rely on USEPA approaches and information
- Introduce no new legislative initiatives
- Follow 6/2/2008 N.J.A.C. 7:26D as a model
- Minimize cross program impacts

General Principles Continued

- "Formalize" existing programs currently operating under guidance for vapor intrusion, impact to ground water, dioxin, and extractable petroleum hydrocarbons
- Update toxicity and physical/chemical parameter information
- Stakeholder process will allow understanding of the nature and components of the proposed rule amendments and allow the identification of stakeholder concerns and issues
- The Department is responsible for the final product

Immediate Participants

- Assistant Commissioner
- Rule Team
- Core Committee
- Office of Legal Affairs
- Division of Law
- Office of Communications and Constituent Services
- Office of Economic Analysis
- Internal Stakeholders
- External Stakeholders
- Commissioner and his Chief Advisor

The Administrative Plan

- Follow N.J.A.C. 7:26D – June 2008 path
- Use Rulemaking Checklist – July 2012
- Use Stakeholder Involvement Manual

Steps Taken to Date

- 11/2013: Received Commissioner approval to move forward with the rule amendment
- 11/25/2013: Sent initiation memo to Office of Legal Affairs. Legal specialist was assigned.
- 12/19/2013: Coordinated with Division of Law. DAG was assigned.
- 12/24/2013: Initiated coordination with Office of Communications and Constituent Services on stakeholder process

Steps Taken to Date Continued

- 2/27/2014: Held initial coordination meeting with Office of Economic Analysis
- 3/5/2014: Held initial Internal Stakeholder Meeting
- 3/11/2014: Held initial External Stakeholder Meeting. They will recur at monthly intervals.

Future Steps

- After the initial stakeholder meetings: Hold Proposal Launch Meeting
- After the Proposal Launch meeting: Generate Proposal Launch Memo (one week after launch meeting)
- Hold Commissioner Rule Briefing if desired
- 12/2014 or after: File proposal to amend N.J.A.C. 7:26D. This marks the start of the formal comment period.
- 3/2015: Generate notice of readoption of N.J.A.C. 7:26D without change for filing before sunset date
- 12/2015 or after: File adoption of proposal

Notable Specifics

- The list of standards should reflect the typical soil investigation approach in focusing on the Target Compound List and the Target Analyte List with additions based on need in order to keep investigation requirements appropriate
- Standards for contaminants can be developed if necessary as interim remediation standards provided toxicity information is available
- Initial steps are to identify the contaminant list, update the toxicity information, and ensure a consistent logic is applied in the selection of this information

Notable Specifics Continued

- Rely on USEPA toxicity data when possible, in combination with standard USEPA risk equations
- Route to route extrapolations are restricted
- Include mutagenicity as part of the cancer risk calculation for those compounds specifically identified by USEPA
- Default will be 2 significant figures for all standards (as in the USEPA Regional Screening Levels)
- C carcinogen policy is continued from N.J.A.C. 7:26D 2008 where applicable
- Alternative remediation standards can be developed based on site-specific information, different exposure scenarios, or new toxicity information

Direct Contact Specifics

- Initially, "candidate" standards are being separately developed for the ingestion-dermal and inhalation pathways to assess cancer and non-cancer health endpoints for residential and non-residential exposure scenarios
- Evaluation of the ingestion-dermal pathway and the inhalation pathway "candidate" standards will determine the selected direct contact soil remediation standards
- The ingestion-dermal pathway is the dominant of the two pathways

Ingestion – Dermal Pathway Specifics

- In addition to ingestion, the standard also includes a dermal absorption component
- Majority of standard changes are due to updates in toxicity information
- The residential exposure scenario for carcinogens accounts for both children and adults. Mutagenic contaminants have an additional developmental age adjustment.
- A childhood only approach is used for non-carcinogens in a residential exposure scenario.
- The non-residential exposure scenario uses an adult only approach for both cancer and non-cancer endpoints

Inhalation Pathway Specifics

- Proposed standards will differ from the existing inhalation pathway standards
- Heavy reliance on USEPA RAGS Part F
- Volatile and particulate forms of the contaminants are assessed in one equation
- Vehicle component in N.J.A.C. 7:26D 2008 is deleted
- Route to route extrapolation restrictions limit available toxicity data
- Standard is soil based which differs from the vapor intrusion pathway

Vapor Intrusion Pathway Specifics

- Indoor air screening levels will become standards while the current rapid action levels, ground water screening levels, and soil gas screening levels will remain as screening levels
- Authorization for standards derives from N.J.S.A. 58:10B-1.2 – protection of public health and safety
- Calculations for standards based on USEPA RAGS Part F
- Current guidance already addresses this pathway
- Potential vapor intrusion standard "candidates" are derived from the current TO-15 laboratory contract list
- Standards are distinct from NJDOH evaluation calculations

Impact to Ground Water Pathway Specifics

- Establishes the option to use a standard calculated using a soil water partition equation in combination with the existing ground water quality standards or alternatively, a leachate based standard derived from applying a dilution attenuation factor to the existing ground water quality standards
- Guidance relevant to this pathway is currently in use

Dioxin Specifics

- The dioxin non-cancer reference dose (RfD) was published in IRIS on 2/2012 and available for use for standard development
- 50 ng/kg for residential exposure and 700 ng/kg for non-residential exposure are ingestion dermal pathway based soil standards reflecting the values currently used by USEPA
- Following USEPA long-term practice, dioxin results will be expressed as a 2,3,7,8 TCDD toxic equivalence (TEQ) (using 2005 WHO mammalian toxic equivalency factors (TEF))

Extractable Petroleum Hydrocarbons Specifics

- Reflects current guidance that is already in use since 2009
- Health based soil standards established for No. 2 Fuel Oil are based on ingestion dermal pathway with contingency testing to protect against impact to ground water as well as inhalation concerns
- Calculator to develop sample specific soil standards for other heavier petroleum hydrocarbons and is used in combination with contingency testing for a fuller assessment
- Does not address more volatile petroleum hydrocarbons like gasoline, jet fuel, kerosene, etc.

Questions

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