

July 27, 2007

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Department of Environmental Protection  
401 East State Street  
PO Box 402  
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Via email

Attention: DEP Docket No. 07-07-04/46.

Dear Ms. Ledogar:

Please accept the following comments on behalf of NJ Chapter of Public Employees for Environmental Responsibility (PEER). PEER is a private national non-profit alliance of local, state and federal scientists, law enforcement officers, land managers and other professionals dedicated to upholding environmental laws and values.

1. We note that - since June 2005 - a series of high profile and controversial botched cleanups has prompted several Legislative oversight hearings. The Department's site remediation program and regulations – specifically including remediation standards, technical requirements for site remediation, and the management of contaminated soils – are currently undergoing Legislative oversight.
2. Specifically, legislative oversight hearings were held in June 2005 in response to the W.R. Grace and American Standard sites in Hamilton. The Martin Luther King-Jefferson Elementary School in Trenton importation of contaminated soil fueled oversight concerns. Hamilton Mayor Glen Gilmore was quoted in news reports as stating: “We’re a community that’s been dumped on and lied to”. Legislative hearings resulted in passage of legislation to improve notification requirements (see: P.L. 2006, c.65). That legislation did not address many other deficiencies, including reliance on private certifications, lack of effective public participation, and the historic weakening of the Department’s overall role in the cleanup process in 1993 and 1997 legislation.

3. Subsequently, illegal and improper disposal and reuse of contaminated soils and construction debris as “clean fill” at residential developments prompted additional oversight hearings on June 1, 2006. The legislature has not acted on testimony given at the June 1, 2006 hearing – including the Department’s own testimony which identified several serious loopholes in current regulations (hearing transcript and DEP testimony hereby incorporated by reference).

4. Subsequently, the July 28, 2006 closure of Kiddie Kollege day care center located in a contaminated former mercury thermometer factory under an un-enforced 1995 DEP ISRA cleanup Order, prompted another set of Legislative oversight hearings in Franklin Township and Trenton. (hearing transcripts incorporated by reference). Legislation was passed and signed by the Governor in January 2007 (see P.L. 2007, c.1).

5. Shortly thereafter, the Senate Environment Committee initiated oversight hearings. On October 23, 2006, Commissioner Jackson gave testimony that recommended a series of legislative, regulatory, policy, and administrative reforms (transcript and Department testimony incorporated by reference).

6. In response to this legislative oversight, the Department is currently conducting a Site Remediation Legislative Stakeholders process.

7. Many issues under consideration by the Legislature and Department selected Stakeholders directly impact substantive provisions of the subject proposal.

8. Accordingly, based on 1-7 above, we strongly believe that it is premature and inappropriate to adopt the subject proposal at this time, pending full legislative deliberations on the Department’s Stakeholder recommendations.

9. We note that the subject proposal is weaker than the prior pre-proposal (interested party review). Apparently the weakening came in response to comments by the regulated community. Yet, the comments of some environmental appear to have been ignored. Why the asymmetry? Was a response to comments document ever prepared so that we can understand the DEP's rationale for rejecting environmental group comments?

10. We note that this weakening occurred during a period when loopholes in existing rules and gaps in the overall cleanup program were exposed

11.. The fundamental purpose of the 5 year sunset provision in the NJ Administrative Procedures Act is so rules can be revised to respond to new information. Why has none of this new information – among other things that identified in 1-8 above - been incorporated in the proposal? (Just one example: DEP testified at June 2006 legislative oversight hearings on numerous loopholes and limitations in soil regulations).

**12. Precautionary Principle**

We note that the proposal does not reflect and is not based upon the Precautionary Principle. This principle is now well established in the public policy literature and has been embraced by the European Union. We strongly urge the Department to adopt this principle as policy, and systematically revise regulations as necessary to implement that policy. The subject proposal should be withdrawn and re-proposed as necessary to incorporate this policy.

### 13. Children's health effects

P.L. 2007, c. 1 mandates that standards that apply to schools and day care centers be based upon children's unique developmental biology and protective of children's health effects.

P.L. 2007, c.1. revised the statutory basis for deriving cleanup standards – in addition to including “public safety”, Section 1 mandates that DHSS base standards on children's health effects and explicit consideration of

***“The rules and regulations adopted pursuant to this subsection shall be protective of the health of children and infants, and shall account for the difference in rate of the absorption, metabolism, and excretion of compounds between adults and infants and children.”*** [http://www.njleg.state.nj.us/2006/Bills/PL07/1\\_.HTM](http://www.njleg.state.nj.us/2006/Bills/PL07/1_.HTM)

This provision conflicts with the health risk basis for derivation of soil, groundwater and cleanup standards in remediation laws administered by the Department. While this provision of PL 2007, c.1 does not apply directly to DEP and the law provides DHSS with jurisdiction over school and day care building interiors, the provision clearly creates a conflict in the statutory basis and methodology DEP used to derive standards. The DHSS standards will be more stringent. Accordingly, there may arise sites where DEP soil standards and cleanup approvals (RAW and NFA) conflict with the legal basis and scientific methodology for deriving standards. To protect children's health, the Department must harmonize its cleanup standards with the DHSS school and day care standards to be proposed by January 2008.

Additionally, there is also overlapping jurisdiction between DHSS and DEP for building interiors, as remedial laws and DEP Tech regulations apply to indoor releases.

Also, Section 2 of P.L 2007, c. 1 mandates that DEP issue a site wide NFA (excerpted below). This creates clear legal and technical conflicts and inconsistencies between DHSS and DEP standards. For example, hypothetically, DEP soil standards and cleanup approvals are based upon air/inhalation exposure and risk assessment models that deviate from the statutory children's health basis for deriving DHSS indoor standards.

As was recently found in Westbrook Middle School case, outdoor pesticide-contaminated soils can and do migrate INDOORS. DEP soil standards for outdoor soils could impose unacceptable indoor risks based on DHSS standards.

*b. (1) No construction permit shall be issued for the construction or alteration of any building or structure to be used as a child care center licensed pursuant to the provisions of P.L.1983, c.492, or for educational purposes, on a site that was previously used for industrial, storage, or high hazard purposes, as a nail salon, dry cleaning facility, or gasoline station, or on a contaminated site, on a site on which there is suspected contamination, or on an industrial site that is subject to the provisions of the "Industrial Site Recovery Act," P.L.1983, c.330 (C.13:1K-6 et al.), except after submission by the applicant to the construction official of documentation sufficient to establish that the Department of Environmental Protection has approved a remedial action workplan for the entire site or that the site has been remediated consistent with the remediation standards and other remediation requirements established pursuant to section 35 of P.L.1993, c.139 (C.58:10B-12) and a no further action letter has been issued by the Department of Environmental Protection for the entire site*  
[clip]

*(3) The appropriate enforcing agency shall not grant a certificate of occupancy for any building or structure to be used as a child care center licensed pursuant to the provisions of P.L.1983, c.492, or for educational purposes, that received a construction permit pursuant to paragraph (2) of this subsection, except after submission by the applicant to the construction official of documentation sufficient to establish that the site has been remediated consistent with the remediation standards and other remediation requirements established pursuant to section 35 of P.L.1993, c.139 (C.58:10B-12) and a no further action letter has been issued by the Department of Environmental Protection for the entire site.*

#### **14. Endocrine disruption health endpoints**

The proposal appears to ignore these health effects. We urge the Department to reconsider protection of these health endpoints.

#### **15. Cumulative and synergistic effects**

The proposal appears to ignore these health effects. We urge the Department to reconsider protection of these health endpoints.

#### **16. Persistent and/or bio-accumulative compounds**

It is not clear how persistent and/or biological chemical characteristics were considered in deriving the proposed standards. The Department should clarify this set of issues and assure the public that these characteristics were incorporated in deriving standards.

#### **17. Lack of ecological protections – failure to establish Environmental Advisory Task Force**

The proposal fails to consider adverse ecological and wildlife effects. This is a fatal flaw. The proposal should be withdrawn and re-proposed based on ecological protections.

However, pursuant to NJSA 58:10B-12a - enacted 14 years ago in 1993 - the Department is prohibited from developing ecological based standards until the Environmental Advisor Task Force established by law completes its work.

Yet after 14 years, the Environmental Advisory Task Force has not convened because the Governor has not nominated members and the legislature has not approved members. This is totally unacceptable and we urge the Department to advise the Governor to appoint EATF members.

The lack of ecological protections contradicts recent efforts by the Department to establish wildlife criteria in surface water quality standards.

In a June 26, 1996 Biological Opinion, the U.S. Fish and Wildlife Service found that New Jersey's surface water quality standards would not protect bald eagle and peregrine falcon populations from bioaccumulation of mercury, PCBs and the pesticide DDT. As a result, the U.S. Environmental Protection Agency directed DEP to develop new wildlife criteria to minimize adverse effects on species federally listed as threatened or endangered. Key findings of the BO include:

- *“The NJSWQS specifies an aquatic life criterion of 14,000 ppq for PCBs. The NJSWQS human health criterion for PCBs is 244 ppq. However, it is the Service's understanding that the latter is being disapproved by EPA; therefore, the Federal Toxics Rule human health criterion of 44ppq will remain in effect for PCBs in New Jersey. Although the Federal Toxics Rule human health criterion of 44 ppq for PCBs is less than the Great Lakes Initiative (GLI) wildlife criterion of 74 ppq, the Service is concerned about the adoption of the 44 ppq criterion because of the information presented by Ludwig et al. (1993) and the accumulating data indicating high levels of PCBs in the New Jersey bald eagle and peregrine falcon populations (U.S. Fish and Wildlife Service, 1995c; 1996a in prep.). A more stringent water quality criterion for PCBs has been derived (Ludwig et al., 1993), based on the toxicological responses of wildlife. Ludwig et al. (1993) provide a basis for a PCB water quality criterion of 1.0 ppq, based on a LOAEL derived from either field observations or from controlled laboratory studies. The toxicological impacts of PCBs to the New Jersey raptor populations would be at least stabilized by promulgation of a more stringent NJSWQS criterion than the existing criterion of 44 ppq.*
- *“The GLI wildlife criterion for mercury is 1,300 ppq, whereas New Jersey proposes a human health criterion for mercury of 144,000 ppq. This is a factor of 110 times greater than the GLI wildlife criterion. Thus, the New Jersey proposed criterion for mercury is unlikely to be protective of bald eagles and peregrine falcons.*
- *The Great Lakes Initiative (GLI) wildlife criterion for DDT and metabolites is 11 parts perquadrillion (ppq), whereas the New Jersey chronic aquatic life criterion for DDT is almost 700 ppq, and the chronic human-health criterion for DDT and DDE is 588 ppq. If the human-health criterion of 588 ppq is applied to all waters, it would be a factor 53 times greater than the proposed GLI criterion.... the*

*NJSWQS criterion for DDT and its derivatives is unlikely to be protective of bald eagles and peregrine falcons.*

Scientific basis for wildlife standards was completed in July 2001. See the EPA/USFWS/DEP joint basis for Wildlife Criteria "*Derivation of New Jersey-Specific Wildlife Values as Surface Water Quality Criteria for PCBs, DDT, and Mercury*" July 2001 at <http://www.state.nj.us/dep/wmm/bfbm/sgwqt.html>

USEPA then directed NJDEP to adopt protective wildlife standards or EPA may do so in a March 17, 2000 letter (incorporated by reference and available upon request)

In response to this EPA directive, DEP proposed the standards in November 2002: 11/18/02 NJ Register DEP proposed wildlife criteria <http://www.state.nj.us/dep/wmm/sgwqt/7-9Bprop2002.pdf>

The proposal stated:

“As part of the 1994 approval of the New Jersey SWQS triennial review process, the USEPA, in collaboration with the USFWS, indicated that the human health based criteria for PCBs were not protective of the threatened and endangered species bald eagle, peregrine falcon, and dwarf wedgemussel. As a result, the Service prepared a Biological Opinion document in 1996 (*Biological opinion on the effects of the U.S. Environmental Protection Agency’s approval of the state of New Jersey’s surface water quality standards on the bald eagle, peregrine falcon, and dwarf wedgemussel*. U.S. Department of the Interior, Fish & Wildlife Service, New Jersey Field Office, Pleasantville, New Jersey. 1996). The lack of wildlife criteria for DDT and its metabolites, mercury, and PCBs was a concern to the USFWS. DDT and its metabolites, mercury, and PCBs are bio-accumulative pollutants that are persistent in the environment, accumulate in biological tissues, and bio-magnify in the food chain. Due to these characteristics, the concentration of these contaminants may increase as they are transferred up through various food chain levels. As a result, adverse impacts to non-aquatic, piscivorous (fish-eating) organisms may arise from low surface water concentrations. The peregrine falcon is not a piscivorous species. However, it feeds on other piscivorous bird species. Therefore, bio-magnification may be of even greater concern for the peregrine falcon.

DEP Reiterated Support for Standards in 2003.

In the 5/19/03 NJ Register, DEP pledged to adopt the standards “later in 2003.” This commitment was not honored, and the proposal was allowed to expire without formally being withdrawn. <http://www.nj.gov/dep/rules/adoptions/042203a.pdf>

The proposal stated:

“The Department has determined it is not necessary to delay the adoption of the Category 1 upgrades while the committee reviews the technical comments on the wildlife criteria. Therefore, the Department will adopt the proposed wildlife criteria, the applicable design flow, and the definitions later in 2003.”

USEPA reiterated support for the wildlife criteria in October 2003. See: [http://www.peer.org/docs/nj/05\\_12\\_7\\_epaltr.pdf](http://www.peer.org/docs/nj/05_12_7_epaltr.pdf)

In the May 16, 2005 NJ Register, DEP published a Public Notice. Governor Codey extends expiration date and DEP outlines plans to re-adopt NJ Surface Water Quality Standards. Notice does not include any plans to re-propose expired wildlife criteria.

The soil criteria need to address wildlife and ecological impacts.

## 18. Impact to ground water

According to the proposal:

***“To develop impact to ground water standards the Department used a dilution attenuation factor (DAF) of 13 which is appropriate because it is based on New Jersey soils and environmental conditions.”*** (pages 50-51).

It is inappropriate and inconsistent with NJ law and historical ground water protection policy to allow dilution in deriving standards. Pursuant to NJ law, all groundwater is classified as potable (unless the aquifer is reclassified by the Department) and subject to a non-degradation standard. The point of compliance where this standard is enforced is at the point where the pollutant comes into contact with the groundwater. This has been the longstanding law, policy, and practice of the Department.

Under NJ law, it is the state's responsibility to serve as the public trustee for its surface and groundwater resources. In *City of Clifton v. Passaic Valley Water*, the court found that water is essential for human life, and thus the public trust doctrine applies with equal impact upon the control of our drinking water reserves; because ultimate ownership rests in the people, this precious natural resource is held by the state in trust for the public benefit. In *Clifton*, the court quoted Justice Alan B. Handler's analysis in *State v. No. Jersey Water Supply*:

This controversy must be understood in the perspective of the State's overriding concern and obligation to safeguard the public health. This encompasses a comprehensive power, coupled with a correlative duty, to control and conserve the use of its water resources for the benefit of all its inhabitants. It is a paramount governmental policy that such water supplies must be pure in quality, and be economically and prudently managed for the benefit of the public. Designed to protect and promote the general health, safety and welfare, statutes regulating public water resources must be liberally construed to advance and achieve this underlying beneficent policy. [Citations omitted] In addition to the common law development of the public trust doctrine, the Legislature has repeatedly emphasized the importance of the state's public trust obligations. In the Water Supply Management Act, the Legislature declared:

that the water resources of the State are public assets of the State held in trust for its citizens and are essential to the health, safety, economic welfare, recreational and aesthetic enjoyment, and general welfare, of the people of New Jersey; that ownership of these assets is in the State as trustee of the people. In the Water Quality Planning Act, the Legislature similarly articulated the state's public trust obligation in specifying the goal "to restore and maintain the chemical, physical, and biological integrity of the waters of the State, including groundwaters, and the public trust therein."

In almost 120 lawsuits seeking collection of damages to natural resources due to groundwater injury, the Department has correctly finds:

AFFECTED NATURAL RESOURCE

Groundwater

10. Groundwater is an extremely important natural resource for the people of New Jersey, supplying more than 900 million gallons of water per day, which provides more than half of New Jersey's population with drinking water.

11. Not only does groundwater serve as a source of potable water, it also serves as an integral part of the State's ecosystem.

12. Groundwater provides base flow to streams and other surface water bodies, and influences surface water quality and wetland ecology and the health of the aquatic ecosystem.

13. Groundwater provides cycling and nutrient movement, prevents salt water intrusion, provides ground stabilization, prevents sinkholes, and provides maintenance of critical water levels in freshwater wetlands.

14. Groundwater is a unique resource that supports the State's tourism industry and is also used for commercial,

industrial and agricultural purposes, all of which helps sustain the State's economy.

15. There are more than 6,000 contaminated sites in New Jersey that have confirmed groundwater contamination with hazardous substances.



Source: See: <http://www.nj.gov/oag/newsreleases07/NRD-lawsuits-07/Allen-Bradley-Complaint.pdf>

The dilution provisions of the proposal would violate the Department's own litigation findings, and thereby create additional natural resource injury.

For the foregoing reasons, the dilution approach should be abandoned..

### **19. Practical Quantitation limits (PQL's)**

The proposal is based upon PQLs in establishing the enforceable basis for standards. The following standards allow the PQL to apply in lieu of the calculated criteria as follows:

Direct Contact Exposure Pathway  
residential 6 of 135 standards  
non-residential 2 of 134 standards

Impact to Ground water pathway  
6 of 44 standards (leaching)  
34 of 78 standards (soil-water partitioning)

My concern is limited to those 48 parameters for which the calculated health based standard is lower than the PQL.

How have analytical methods and PQLs changed over time with respect to these 48 parameters?

The PQL issue was initially addressed in 1996 during the Whitman water rule stakeholder process. At that time, the Department shared a concern regarding whether PQLs alone were adequately protective. My understanding was, at that time, that the Department agreed to limit implementation of PQLs to a case by case enforcement discretion basis and do certain things prior to regulatory adoption of PQLs' including:

- 1) prioritize analytical methods updates to improve analytical performance for these parameters and thereby lower the PQLs
- 2) not rely exclusively on EPA approved analytical methods and PQLs. Instead, the Department pledged to more aggressively pursue more sensitive NJ methods and incorporate them in the Department's Lab Certification Program and various program rules;
- 3) consider using research lab methods as a performance benchmark for the commercial labs and methods development

4) dedicate additional resources to the Department's Lab Certification and methods development programs

5) consider alternative technical other than PQL = 5X MDL, and PQL

6) consider a more stringent enforcement and implementation approach than merely relying on PQL as sole satisfaction of the compliance burden (e.g. in the water program, the Department was willing to consider additional measures to provide a more confident degree of assurance of public health was protected - pollution prevention, additional effluent sampling, et al).

What is the status of the above commitments in PQLs?

Specific additional sampling and remedial measures to provide additional assurances of adequate protection should be required for these 48 PQL based parameters.

## **20. Implementation of an Order of magnitude change in standards**

Several proposed standards for individual parameters would be lowered by an order of magnitude or more. Lower standards are required to comply with the health risk standards established by NJ laws (i.e. the one in a million individual excess cancer risk).

The change in standards essentially means that prior remedial actions and DEP approvals based on the prior standards are no longer protective.

For those parameters that have been lowered by an order of magnitude or more, the law requires the Department to re-open any prior RAW approval, NFA or CNS. If not, the Department would knowingly allow human exposure to risks in excess of the statutory risk standards.

## **21. Determination of practicality of remedial alternatives**

The proposal states:

“Remediation options for the impact to ground water pathway include the development of an ARS for soil that is protective of the ground water, or treatment or removal of contaminated soil. Containment with engineering controls may be approved as part of a ground water/soil remedial action when removal or treatment is deemed to be technically impractical.” (@ page 8)

Any proposed remedial alternatives analysis must be subject to public notice and public comment, before approval of remedy selection by the Department.

Containment and engineering controls are not appropriate as part of a soil/groundwater remediation. The groundwater must be protected from any degradation at point of contact. Engineering controls can not provide reliable assurance that groundwater

standards will be met – when groundwater is at risk, the only appropriate remedy is excavation/source removal.

The proposal fails to identify specific criteria upon which to determine “technical practicality”. On what basis would the Department determine that removal is “impractical”? This is a major decision. Lack of technical criteria render this decision arbitrary.