



Illinois Environmental Council Education Fund
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December 2, 2011

Board Member Deanna Glosser
Hearing Officer Marie Tipsord
Illinois Pollution Control Board
1021 North Grand Avenue East
PO Box 19274
Springfield, Illinois 62794-9274

RE: *Rulemaking R2012-009*

Dear Board Member Glosser and Hearing Officer Tipsord:

The Illinois Environmental Council appreciates the opportunity to comment on the Proposed Amendments to 35 Ill. Adm. Code Part 1100, regulating Clean Construction or Demolition Debris Fill Operations. IEC is a 501(c)3 non-profit umbrella organization representing the interests of over 50 environmental and community organization in Illinois on state and federal issues dealing with the environment and public health.

IEC strongly opposes the proposed amendments. The amendments fail to adequately protect public health and the environment from the groundwater contamination. The proposed amendments do not use an appropriate soil pollution standard or require adequate testing of incoming loads and they propose an inflexible groundwater monitoring plan not based on individual site characteristics. The amendment recommends soil pollution standard based on the Tiered Approach to Corrective Action Objectives or specifically TACO Tier 1 soil remediation standards, see 35 Ill. Adm. Code 742. The TACO Tier 1 pollution levels were never designed to prevent the type of groundwater pollution that will result from the leaching associated with the sheer volume of contaminated debris being dumped into a quarry as fill. The amendment stops short of mandating the types of tests that could determine the full range of TACO Tier 1 pollution levels in the debris being dumped into a quarry and instead relies on identifying a subset of TACO Tier 1 pollutants, those that vaporize at room temperature. The amendments willingly turn a blind eye to a whole range of contaminated debris that will go untested until such time as the quarry fill operator tests for groundwater contamination – by that time the damage may be irreversible and cost prohibitive. Illinois quarries in particular are highly permeable excavated open-pit mines, ideal conduits for groundwater contamination. Generally quarry-bottoms are either at or below the water table so drainage is a problem. Engineers typically remove water from the quarry by pumping, but greater volumes of water require more complex approaches.

Even the Illinois Environmental Protection Agency acknowledges the likelihood of groundwater contamination, please see the Direct Testimony of the Agency's Stephen F. Nightengale on page twenty-four filed as part of this rulemaking electronically on October 7, 2011. "[T]he Agency anticipates a certain percentage [of soil] may not meet these [contamination] standards, and with the sheer volume of material accepted at these fill

operations, even a small percentage of missed contamination could cause groundwater problems – especially since these fill operations are placing material directly in contact with groundwater.”¹ The majority of households across the state use groundwater aquifers as their main source of drinking water, these amendments present a clear risk to the health of Illinois citizens. Below we note our specific objections to the proposed amendments.

A. TACO Tier I Standards Should Not Be Used To Regulate Soil In Quarry Fill Operations.

The amendments’ reliance on TACO Tier 1 soil pollution standards to regulate the contaminated fill debris that will be dumped into a quarry are misguided. Section 1100.605 of the proposed amendments is based on TACO’s Tier 1 maximum allowable concentrations. These standards will not prevent contaminated fill placed in a quarry from leaching into groundwater. TACO Tier 1 was never designed to prevent groundwater contamination from the volume of contaminated debris that the rule contemplates placing into a quarry. TACO Tier 1 is a remediation program and was designed to create an acceptable range for the concentration of pollution in contaminated soil subject to land use and location. TACO Tier 1 cannot be applied in a one-size-fits-all manner.

In particular, quarries are vulnerable geological areas. Quarry bottoms are typically comprised of sand or gravel bottoms, thus the quarry bottoms are extremely porous and an insufficient barrier to prevent the leaching of hazardous materials into the aquifers below. Quarries are usually several hundred feet deep and lie at least partially beneath the water table. TACO Tier 1 was designed to regulate contaminated soil at relatively shallow sites that reside above clay subsoil serving as a barrier to the water table. TACO Tier 1 contemplates the vertical leaching of contaminants will attenuate in concentration as they move downward. The use of contaminated debris as fill presumes the horizontal leaching of contaminants that will increase in concentration as the pollutants leach into the groundwater. The TACO Tier 1 soil pollution standard is a poor regulatory tool to prevent groundwater contamination leached from the contaminated debris that will be dumped into a quarry.

B. The Proposed Amendments Do Not Ensure That Soil Used As Fill Is Uncontaminated.

The onsite process for determining whether the construction debris falls within the acceptable range TACO Tier pollutants is inadequate. The amendments simply require that a geologist or an engineer certify that the debris falls within the range of TACO Tier 1 pollution levels for soil. The amendments do not mandate an objective lab analysis of the debris to determine the level of contamination. Instead the amendments rely upon a test that can at its best only detect a subset of TACO Tier 1 pollutants in incoming loads of fill debris. The proposed rule recommends that operators carry out random visual inspections and scan the load using a photoionization detector or “PID” (Section 1100.205(b)). PIDs possess an extremely limited capacity to detect TACO Tier 1 pollutants and are unreliable. PIDs cannot detect toxic

¹ We note that the term “uncontaminated soil” is a misnomer. In this passage, the IEPA openly admits that the soil used as fill will contain contaminants, yet has chosen to label the soil “uncontaminated” throughout the proposed amendments.

substances, such as lead, or semi-volatile compounds like polychlorinated biphenyls (commonly known as PCBs). PIDs are also classified as nonspecific detectors, meaning they cannot be used to identify unknown substances. Finally, the performance of PID varies with humidity and soil moisture. Given all of these shortcomings, the PID will fail to detect a number of toxic pollutants that are integral to safeguarding the human health and environment. The use of PIDs to test a load of fill debris is a breach of duty and an undue risk in the prevention of groundwater contamination.

The proposed amendments on load certification are also inadequate. Section 1100.205(a)(1)(A) requires a certification from the source site owner or operator that the site is presumed to be uncontaminated; this provision is meaningless because there is no third-party testing involved. Similarly, 100.205(a)(1)(B) requires that each load must be certified by a licensed Professional Engineer or Professional Geologist, but there is nothing requiring these individuals to personally carry out or oversee the certification procedures. In fact, there is nothing mandating these individuals to carry out any kind of testing at all. These loose requirements dramatically increase the likelihood that contaminants will be missed.

C. The Proposed Amendments' Groundwater Monitoring Plan Is Deficient.

The IEPA claims that the groundwater monitoring plan under Subpart G of the proposed amendments is meant to contain contamination fill debris. The proposed amendment will not achieve this objective. A sound regulatory scheme for quarry fill would mandate an engineering study to determine the geological characteristics of the quarry, the quarry's proximity to groundwater and the flow of groundwater and as well as the public use and consumption of such water. For example, Subtitle D landfills require an extensive geological survey to determine where water and leachate most easily flow through fractured rock. Fractured or porous rock is highly susceptible to leaching, acting as a conduit to groundwater; as such these areas require a similar level of scrutiny to prevent groundwater contamination.

Section 1100.725 of the rule states that the monitoring system "must consist of a sufficient number of wells, installed at appropriate locations and depths." This vague statement provides almost zero regulatory guidance. In the absence of a mandate that requires extensive geological survey by a licensed engineer there is little assurance that the groundwater monitoring wells will be properly located or spaced to monitor groundwater conditions.

D. Conclusion

For the reasons stated above, the IEC recommends that a new set of pollution contamination standards are required, these standards need to take into account the unique geological challenges associated with quarries. The IEC also recommends that any debris that is to be used as fill in a quarry be tested by an accredited lab to prevent groundwater contamination and that an extensive study of the quarry and surrounding area should be conducted by a licensed engineer. The study should locate groundwater aquifers and determine their direction and flow. The study should also provide recommendations to prevent and monitor for groundwater contamination. IEC's ultimate recommendation is to require quarry fill operators to obtain adequate insurance to clean up contaminated sites including groundwater.

IEC also joins with the Illinois Attorney General's Office is posing the following questions to the IEPA and ask that the Hearing Officer, staff and Board give due consideration to the questions posed as they also draw attention to the inadequate nature of the proposed rule to safeguard the public health and environment from groundwater contamination.

1. Why do the proposed Part 1100 regulations not require operators to inspect incoming loads via x-ray fluoroscopy to detect the presence of heavy metals?
2. Why do the proposed Part 1100 regulations not address this potential problem [regarding standards of issuance for a permit] and what steps will the Illinois EPA take to ensure that historically bad owner/operators are closely scrutinized in the CCDD permitting process, including the transfer of permits?
3. Why do the proposed Part 1100 regulations not include bright line language to address the consequences of the late filing of a permit renewal application and provide guidance to the regulated community?
4. Why do the proposed Part 1100 regulations limit to three years, the acceptable time frame for an owner/operator to be without an exceedance of the Class I groundwater quality standards and what if any protections are there for citizens using groundwater as a resource that becomes contaminated beyond the three year period?
5. Why do the proposed Part 1100 regulations limit the frequency of groundwater monitoring at CCDD facilities to once a year, when inert waste landfills require bi-annual testing for contaminants?
6. Why do the proposed Part 1100 regulations allow a CCDD owner/operator 60 days to report an exceedance, when each additional day additional fill material is being placed upon the contaminated soil or other waste?
7. How will the proposed part 1100 regulations insure that these plans are subject to review and approval by the Illinois EPA and that the approval process does not continue for an overly extended period of time, where groundwater contamination has been identified?
8. Why do the proposed Part 1100 regulations allow a CCDD owner/operator 60 days to report an exceedance when an inert waste landfill operator must report it within 1 business day?
9. Why do the proposed Part 1100 regulations allow a CCDD owner/operator 300 days to provide an alternative non-compliance plan, when the plan and the support for it may be deficient and then the owner/operator would be required to sample the groundwater again as required in Section 1100.745(b), thereby providing an additional 120 days to provide the Illinois EPA with the sampling results?

10. Why would any owner/operator ever initiate the Section 1100.745(b) sampling without first attempting to provide the Illinois EPA with a Section 1100.750 alternate non-compliance program?

11. Are there any CCDD fill operations or registered uncontaminated soil operations that are dewatering their facilities without an NPDES Permit, and if so how many?

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer Walling". The signature is written in a cursive style with a large initial "J".

Jennifer Walling
Executive Director
Illinois Environmental Council