

## Hazardous Waste “Contained-out” Decisions and Soil Cleanups

The applicability of federal hazardous waste rules to the cleanup of contaminated soil and groundwater in Wisconsin has received considerable attention by DNR over the last five years. Several years ago, the DNR’s RR and Waste programs issued *Guidance for Hazardous Waste Remediation*, which provides information on the requirements and options available when dealing with the cleanup and redevelopment at sites that may be contaminated with hazardous waste (the guidance is available on the web at <http://dnr.wi.gov/org/aw/rr/archives/pubs/RR705.pdf>).

One of the most useful tools in the guidance is the concept of “contained-out”. Normally, EPA interprets its rules such that environmental media containing a regulated hazardous waste must be handled as a hazardous waste. However, the “contained-out” concept allows media contaminated with a hazardous waste or a commercial chemical product (such as perchlorethylene) to be managed as a solid waste, but only if the concentrations are below health based levels.

When DNR provided training on *Guidance for Hazardous Waste Remediation*, the informational materials included specific containedout values for tri TCE, Perchlorethylene (PCE) and vinyl chloride. Since that time, however, EPA has revised its toxicity values for both TCE and PCE, and as a result those using EPA’s web calculator to derive a contained-out value for these two compounds will obtain results significantly lower than the numbers DNR provided. Because of this revision, for the last several months there have been a number of questions raised about the appropriate "contained-out" values for these compounds.

### Three Tiers

The EPA uses a three-tiered hierarchy for determining human health toxicity. Tier 1, the most rigorous process, uses the Integrated Risk Information System (IRIS) to evaluate human health effects from exposure to various compounds. The second tier is referred to as Provisional Peer Reviewed Toxicity Values (PPRTV’s), which was the method used by EPA to modify the toxicity values for TCE and PCE.

The DNR has some flexibility in determining how to make "contained-out" determinations, and therefore until further notice, the numbers provided in our training materials may still be used when making "contained-out" determinations for contaminated soil in Wisconsin.

Those concentration levels are as follows:

- TCE – 14 ppm;
- PCE – 33 ppm; and
- vinyl chloride – 0.87 ppm.

Continuing to use these values will yield a consistent statewide approach and reduce the

time spent preparing and evaluating "contained-out" determinations for these contaminants. In addition, it will provide DNR staff time to further evaluate EPA's threetiered process for establishing toxicity values and determine how, if at all, the process affects our hazardous waste regulatory decisions. If the DNR needs to modify our Wisconsin "contained-out" values in the future, we will provide a follow-up announcement in our listserve, Re News, and the Internet.

The "contained-out" option addresses contamination from releases of hazardous wastes or commercial chemical products. However, contaminated media can also be considered a hazardous waste if it exhibits the characteristic of ignitability, reactivity, corrosivity, or toxicity. The characteristic most likely to apply to contaminated soil is toxicity, which is determined by the Toxicity Characteristic Leaching Procedure (TCLP) test. Please see s. NR 605.08, Wis. Adm. Code, for additional details.

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