Planned EPA Risk Value For DNT Could Aid Army Cleanups, Activists Say

EPA is developing a provisional peer-reviewed toxicity value (PPRTV) for technical grade dinitroluene (DNT), a move environmentalists say could provide the agency and state regulators with leverage needed to require testing and cleanup of some of the less common forms of the explosive substance at former military sites around the country.

The agency already has an Integrated Risk Information System (IRIS) value for 2,4-DNT and a PPRTV for 2,6-DNT, an EPA source notes. But the forthcoming PPRTV for technical grade DNT will be the first EPA toxicity value to address the other four known DNT isomers, the EPA source says. This is because technical grade DNT is considered to be a blend of all six DNT isomers.

EPA's move to also address the four less common DNT isomers is significant, an environmentalist says, given the Army's resistance to addressing all six DNT isomers when conducting soil cleanups. The Army has in some cases questioned whether regulators have the authority to require that the four less common isomers be addressed, but an EPA toxicity value that addresses all six "could kick the legs out from under the Army's" argument, the activist says.

For example, at the Badger Army Ammunition Plant in Wisconsin, the Wisconsin Department of Natural Resources (WDNR) recently called on the Army to test soil for all six DNT isomers and set cleanup standards if they are detected. The activist group Citizens for Safe Water Around Badger (CSWAB), which has long campaigned for testing of all DNT isomers, called the state's decision precedent-setting (*Superfund Report*, Oct. 3).

But the Army resisted, saying in an Oct. 11 response to WDNR that it questioned the legal underpinnings of the order to test for the four less common DNT isomers, and that it refuses to conduct such tests at this time. WDNR then withdrew the requirement in a Nov. 1 letter to Army officials.

"It has . . . come to our attention that the [Army] and [EPA] are currently examining the issue of testing for these isomers in soil on a nationwide basis through EPA's 'Technical Support Project, Federal Facilities Forum,'" the letter says. WDNR "will defer any further action on this matter until after the deliberations by the Federal Facilities Forum have been completed." *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2382015)*

But the environmentalist says the existence of a federal toxicity value that addresses the four less common DNT isomers could provide leverage against the Army's argument relative to the Badger site, and could be significant at other sites as well.

For example, CSWAB is also urging that testing be expanded to include all six DNT isomers at the Longhorn Army Ammunition Plant in Texas and the Radford Army Ammunition Plant in Virginia. According to EPA's website, EPA and the Army are looking into the issue.

A second EPA source says a PPRTV will help site-specific risk assessors determine what kinds of risks to human health and the environment the four less common DNT isomers may pose, something that is more difficult to do in the absence of a toxicity value.

And Elizabeth Southerland, assessment and remediation division director for EPA's Superfund program, who announced the forthcoming PPRTV Oct. 26 at the Association of State & Territorial Solid Waste Management Officials (ASTSWMO) annual meeting in Bethesda, MD, told *Inside EPA* that agency officials hoped the toxicity value would be "helpful" at the Badger site.

Southerland said that the Agency for Toxic Substances & Disease Registry (ATSDR) assumes that all six DNT isomers are roughly equal in toxicity, but that EPA officials decided a more sophisticated analysis was needed.

The specific assumptions that EPA makes when preparing the PPRTV for technical grade DNT will play a key role in determining whether the value will ultimately be effective in assessing risk at such sites, the environmentalist says.

Typically, technical grade DNT is considered to be a mixture composed of approximately 76 percent 2,4-DNT, 19 percent 2,6-DNT and five percent of the four less common DNT isomers, including 2,3-DNT, 3,4-DNT, 3,5-DNT and 2,5-DNT, the activist notes. But while these proportions may be valid at the time the blend is manufactured, they do not always hold true after it is released into the environment, the activist says.

In the environment surrounding former military sites, the four less common DNT isomers are often found at significantly greater concentrations than 2,4-DNT and 2,6-DNT, the activist says. This may be due to 2,4-DNT and 2,6-DNT being more biodegradable than the four less common DNT isomers, the activist says.

Therefore, environmentalists are concerned that, if EPA assumes that technical grade DNT always includes proportionally greater amounts of 2,4-DNT and 2,6-DNT in the environment, the PPRTV will be skewed and erroneously downplay the risk of being exposed to the four less common DNT isomers, the activist says.

Environmentalists are also concerned about the timing of the PPRTV's release, the activist says. At the ASTSWMO meeting, Southerland said EPA plans to release the PPRTV in the fall of 2012. The activist says that if EPA releases the

toxicity value much later than this, it may be too late to have a positive impact at some sites, and particularly at the Badger site, where the activist says the Army is looking to shut down operations within a year.

As it is, the public comment period for the Badger cleanup will likely be closed by the time EPA releases the PPRTV, the activist says. "We needed this yesterday," the activist says.

A WDNR source said state officials would have to see the EPA toxicity value in order to know how it might impact cleanups at sites such as Badger. — *Douglas P. Guarino*