

addressed in this rule (see section III.C.8 of today's preamble for information regarding K178). We based these adjustments on specific scientific and technical criteria that relate to the possibility of harm from the release of a CERCLA hazardous substance in certain amounts. RQs are based, in part, on a determination of possible or potential harm, but they are not a determination that releases of a particular amount of a hazardous substance necessarily will harm the public health, welfare, or the environment. The quantity released is just one factor that the Federal government considers when it assesses the need to respond to such a release. Other factors include, but are not limited to, the location of the release, its proximity to drinking water supplies or other valuable resources, and the likelihood of exposure or injury to nearby populations. The RQ adjustments that EPA is proposing today would enable us to focus our resources on those releases that are most likely to pose potential threats to public health, welfare, or the environment. These RQ adjustments also would relieve the regulated community and emergency response personnel from the burden of making and receiving reports of releases that are unlikely to pose such threats.

## 2. What Methodology Is EPA Using To Adjust the RQs of the Individual Carbamates?

EPA has wide discretion in adjusting the statutory RQs for hazardous substances under CERCLA. Administrative feasibility and practicality are important considerations. Our methodology for adjusting the RQ of an individual hazardous substance begins with an evaluation of its intrinsic physical, chemical, and toxicological properties. These intrinsic properties—called “primary criteria”—are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, chronic toxicity, and potential carcinogenicity.<sup>4</sup>

Generally, for each intrinsic property, EPA ranks hazardous substances on a five-tier scale, associating a specific range of values on each scale with an RQ value of 1, 10, 100, 1,000, or 5,000

pounds. Each hazardous substance may receive several tentative RQ values based on the primary criteria. The lowest of the tentative RQs becomes the “primary criteria RQ” for that substance.

When we find sufficient data in the scientific literature on the chronic toxicity and/or potential carcinogenicity (two of the six primary criteria) of a substance, we generally evaluate and summarize these data in a chemical-specific profile. Following an extensive review of available scientific literature on the 28 individual carbamates addressed in today's proposed rule, we found that chronic toxicity profiles are warranted for nine of these 28 carbamates, and that potential carcinogenicity profiles are warranted for six of the 28 carbamates. EPA has placed these 15 draft chemical-specific profiles in the docket for this proposed rulemaking.<sup>5</sup> Proposed RQs for several of the substances included in today's rule are based, at least in part, on the conclusions drawn in these profiles.

We are soliciting comments on these drafts. We will consider data that you submit, including any additional toxicity or carcinogenicity data that may be available on these substances or the other carbamates included in today's proposed rule. If the data are applicable, we will incorporate them into the draft profiles prior to their completion.

After assigning the primary criteria RQs, we further evaluate the substances for their susceptibility to certain degradative processes, which we use as “secondary RQ adjustment criteria,” are biodegradation, hydrolysis, and photolysis (BHP). If a hazardous substance, when released into the environment, degrades relatively rapidly to a less hazardous form by one or more of the BHP processes, we generally increase its RQ (as determined by the primary RQ adjustment criteria) by one level.<sup>6</sup> Conversely, if a hazardous substance degrades to a more hazardous product after its release, we assign an RQ equal to the RQ for the more hazardous substance, which may be one or more levels lower than the RQ for the original substance.

Three carbamates—bendiocarb, benomyl, and thiophanate-methyl—have BHP data that are a sufficient basis for adjusting the primary criteria RQs for these substances. Although several other carbamates (e.g., propham) have BHP data that suggest rapid degradation, the evidence for most of these substances is not conclusive. Therefore, no adjustment to the RQs for these other carbamates was proposed on the basis of BHP.<sup>7</sup> EPA is requesting that commenters submit additional degradation data (e.g., data on BOD<sub>5</sub> values and on half lives), if available, on these 28 individual substances.<sup>8</sup>

EPA could not locate acceptable data on any of the primary or secondary criteria for three of the 28 individual carbamates in today's proposed rule (see Table 1). In the past, when adjusting the statutory RQs of such data-poor hazardous substances, we have used data from chemically similar, surrogate substances.<sup>9</sup> Therefore, to adjust the statutory RQs of the three data-poor carbamates in today's rule, we conducted an analysis of other carbamates to identify potential surrogate substances (i.e., carbamates with primary criteria data that are chemically similar, based primarily on structural analogy, to the data-poor substances).

Table 1 lists the chemically similar carbamates EPA used as proposed surrogates, and the proposed RQs we assigned to each data-poor substance based on its chemically similar

<sup>7</sup> To review a summary of the BHP data on the 28 carbamates included in today's rule, see Exhibit 4–3 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 8, available for inspection at the Superfund Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC.

<sup>8</sup> One or more of the following criteria must be met for a hazardous substance to qualify for further RQ adjustment based on BHP: (1) *Biodegradation*: the substance must have a five-day biochemical oxygen demand (BOD<sub>5</sub>) that equals or exceeds 50 percent of the theoretical oxygen demand as calculated based on stoichiometric oxidation; and (2) *Hydrolysis/Photolysis*: the half-life of the substance in the environment must be five days or less. For further information on the methodology for applying BHP, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 1, March 1985, available for inspection at the Superfund Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC.

<sup>9</sup> For further information on, and examples of, EPA's use of surrogate data to adjust RQs of hazardous substances, see section 2 of the Technical Background Document to Support Rulemaking Pursuant to CERCLA section 102, Volume 8, available for inspection at the Superfund Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC.

<sup>4</sup> For further information on assigning adjusted RQs to hazardous substances under the primary criteria, see the Technical Background Document to Support Rulemaking Pursuant to CERCLA Section 102, Volume 2, August 1986 (for chronic toxicity), Volume 3, July 1989 (for potential carcinogenicity), and Volume 1, March 1985 (for the four other primary criteria), available for inspection at the Superfund Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC.

<sup>5</sup> You may inspect the preliminary draft Reportable Quantity documents and potential carcinogenicity evaluations at the Superfund Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC.

<sup>6</sup> We do not raise an RQ level based on BHP if the primary criteria RQ is already at its highest possible level (100 pounds for potential carcinogens and 5,000 pounds for all other types of hazardous substances). The secondary adjustment criteria of BHP are not applied to radionuclides.