

general numerical limits (maximum concentration limits (MCLs)) for some hazardous constituents or at their background level in groundwater unless alternate concentration limits (ACLs) are requested and approved. ACLs may be requested based upon data which would support a determination that, if the ACL is satisfied, the constituent would not present a current or potential threat to human health and the environment. This standard incorporates many of these provisions into the regulations for the Title I sites.

III. Changes and Clarifications in Response to Comments

These final standards modify and clarify some of the provisions of the proposed standards as a result of information and views submitted during the comment period and at the public hearing. EPA received many comments on the proposed standards. Twenty-three letters were received and eight individuals testified at the public hearing. Comments were submitted from private citizens, public interest groups, members of the scientific community, and representatives of industry and of State and Federal agencies. EPA has carefully reviewed and considered these comments in preparing its detailed Response to Comments and the final Background Information Document and in developing the final standards. EPA's responses to major comments are summarized below.

Uranium Concentration Limit

Several commenters pointed out that the Agency used inappropriate dose conversion values (nonstochastic) for uranium and radium (instead of the more appropriate stochastic values) in developing the proposed concentration limit for uranium. These comments were correct. We have reevaluated the risks associated with ingestion of uranium, using current risk factors for radiocarcinogenicity of uranium, and have also considered the chemical toxicity of uranium. We have concluded that the level proposed, 30 pCi/liter, provides an adequate margin of safety against both carcinogenic and toxic effects of uranium, and that the level should be expressed in terms of the concentration of radioactivity, because it is related to the principal health risk, and can accommodate different levels of radioactive disequilibrium between uranium-234 and uranium-238.

EPA's Office of Groundwater and Drinking Water has also examined these factors, and, on July 18, 1991, proposed the MCL for uranium in drinking water be set at a chemical concentration

comparable to the limit on radioactivity promulgated in this regulation. Should the MCL for drinking water, as finally promulgated, provide a level of health protection different from that provided by the limit in this regulation, EPA will reconsider the limit at that time. On the basis of the above considerations, the limit for uranium has been established at 30 pCi/liter for this regulation.

Molybdenum Concentration Limit

Several reviewers objected to the proposed inclusion of a limit on molybdenum. They pointed out that EPA has not established a drinking water standard for this element. While this is true, the drinking water regulations also make provision for health advisories in the case of contaminants that are problems only in special situations. Molybdenum in the vicinity of uranium mill tailings is such a special case. Uranium mill tailings often contain high concentrations of molybdenum that can leach into groundwater in concentrations that may cause toxic effects in humans and cattle. This rule therefore continues to contain a limit on the concentration of molybdenum in groundwater. The value chosen remains the same as that proposed, as discussed in Section IV below.

Other Groundwater Limits

These groundwater limits incorporate MCLs issued under the Safe Drinking Water Act (SDWA) (42 USC 300f, et seq.) and in effect for sites regulated under RCRA from the time these limits were proposed on September 24, 1987, to the present. However, on January 30, 1991, EPA issued new MCLs for some of the inorganic constituents included in the present limits, and proposed new drinking water standards for radioactive constituents were published on July 18, 1991 (56 FR 3526 and 33050). Following publication of final drinking water standards for radioactive constituents, EPA will consider whether the benefits and costs implied by differences between these limits and the new drinking water standards warrant proposing to incorporate the new values into both the Title I and the Title II limits for groundwater.

Application of These Regulations to Vicinity Properties

Several commenters questioned the wisdom of applying these regulations to vicinity properties. (Vicinity properties are real properties or improvements in the vicinity of a tailings pile that are determined by DOE, in consultation with the NRC, to be contaminated with residual radioactive materials.) They

indicated that if the portion of the proposed rule requiring detailed assessment and monitoring were applied to all vicinity properties, it would greatly expand the cost of the program without providing additional benefits. Since only a few vicinity properties contain sufficient tailings to constitute a significant threat of groundwater contamination, we have concluded that detailed assessment and monitoring, followed by identification of listed constituents and groundwater standards, is *not* required at all vicinity properties. It is necessary only at those vicinity properties with a significant potential for groundwater contamination, as determined by the DOE (with the concurrence of NRC) using factors such as those in EPA's RCRA Facility Assessment Guidance document. It should be noted that this modification applies to the requirement for detailed assessment and monitoring only; the standards for cleanup of groundwater contamination are not changed. In addition, we note that the minimal quantities of residual radioactive materials left behind at vicinity properties after compliance with subpart B do not constitute disposal sites under subpart A.

Application of State Regulations to These Sites

Some commenters expressed the view that these regulations should require consistency with State laws and regulations. EPA's regulations for licensed mill tailings sites under Title II of this Act do not contain such a provision. (Although NRC Agreement States may, under the Atomic Energy Act, adopt standards which " * * * are equivalent to the extent practicable or more stringent * * *," they have not done so under UMTRCA.) We have decided that decisions regarding consistency with State laws and regulations should be made by DOE in consultation with the States, as provided by Section 103 of the Act. In making these decisions in cases where an approved Wellhead Protection Area, under the Safe Drinking Water Act, is associated with the site, however, DOE must comply with the provisions of that program, unless an exemption is granted by the President of the United States. In addition, contamination on the site that is not covered by UMTRCA (because it is not related to the processing operation) may be covered by Federal or State RCRA programs.

Application of Institutional Controls During an Extended Remedial Period

Several comments were received concerning the effectiveness, reliability,