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ARARs Q's & A's:

Compliance with New SDWA National Primary Drinking Water Regulations for Organic and Inorganic Chemicals

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Quick Reference Fact Sheet

Section 121(d) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the 1986 Superfund Amendments and Reauthorization Act (SARA), requires that on-site remedial actions must attain or waive Federal or more stringent State applicable or relevant and appropriate requirements (ARARs) upon completion of the remedial action. The 1990 National Oil and Hazardous Substances Pollution Contingency Plan (NCP) requires compliance with ARARs during remedial actions as well as at their completion, and compels attainment of ARARs during removal actions to the extent practicable, considering the exigencies of the situation. (See NCP, 55 FR 8666, 8852 (March 8, 1990)(codified at 40 CFR 300.435(b)(2)), and 55 FR 8666, 8843 (March 8, 1990)(codified at 40 CFR 300.415(i)).

To implement the ARARs provision, EPA developed guidance, CERCLA Compliance With Other Laws Manual: Parts I and II (Publications 9234.1-01 and 9234.1-02), and has provided training to Regions and the States on the identification of and compliance with ARARs. EPA also is preparing a series of short fact sheets to provide guidance on a number of questions that arose in developing ARAR policies, and in identifying and complying with ARARs at specific sites. This particular fact sheet addresses compliance with new Safe Drinking Water Act (SDWA) National Primary Drinking Water Regulations for organic and inorganic chemicals, which were promulgated on January 30, 1991. (See 56 FR 3526 January 30, 1991, to be codified at 40 CFR Parts 141, 142, and 143.)

Q1. What are these National Primary Drinking Water Regulations?

A. These National Primary Drinking Water Regulations (NPDWRs) establish Maximum Contaminant Level Goals (MCLGs) and Maximum Contaminant Levels (MCLs) for 31 organic and inorganic contaminants, which are effective July 30, 1992. They also repropose MCLGs and MCLs for 5 additional contaminants (aldicarb, aldicarb sulfoxide, aldicarb sulfone, pentachlorophenol, and barium) that were originally promulgated on July 8, 1987 and will become effective January 1, 1993. Finally, these regulations promulgate MCLGs and treatment technique requirements for acrylamide and epichlorohydrin. **See Highlight 1** for the definitions of MCLs and MCLGs. For the full text of these SDWA regulations, see 56 FR 3526 (January 30, 1991). **See Highlight 3** for a list of the contaminants and their corresponding MCLs and MCLGs.

Q2. Are MCLs potential ARARs for CERCLA sites?

A. Yes. CERCLA section 121(d)(2)(A)(i) requires on-site CERCLA remedial actions to attain or waive the "standards" or "levels of control" issued under the SDWA (i.e., MCLs) where they are applicable or relevant and appropriate. (Note: As mentioned in the introduction to this fact sheet, the NCP extends the statutory ARARs requirement to removals, to the extent practicable considering the exigencies of the situation, as well as remedial actions. (See section 300.415(i)(1) and (2) of the NCP, 55 FR 8843.)

MCLs are potentially **relevant and appropriate** during a CERCLA cleanup for ground or surface waters that are current or potential sources of drinking water. Since ground water contamination sites account for approximately 70 percent of all sites on the National Priorities List, these potentially

relevant and appropriate requirements are triggered frequently at CERCLA sites.

In addition, MCLs also may be **applicable** where water at a CERCLA site is delivered through a public water supply system, if that system has at least 15 service connections or serves at least 25 year-round residents. Since CERCLA projects only rarely treat tap water, however, there will be few instances in which MCLs are applicable for groundwater cleanup at a CERCLA site. (See NCP Preamble, 55 FR 8750 and CERCLA Compliance With Other Laws Manual, Part I, Publication 9234.1-01, August 1988, page 4-8.)

REMINDER: It makes a difference whether a requirement is **applicable** or **relevant and appropriate.** The "applicability" determination is a legal one, and it provides the Agency with very little flexibility. The "relevant and appropriate" determination is a site-specific determination, which provides the Agency with much greater flexibility since the Agency may determine that a requirement is not "appropriate", given site circumstances. (Therefore it would not be an ARAR for that site.) Waivers are also available if the requirement is relevant and appropriate but cannot be met for one of the reasons set out in CERCLA section 121(d)(4) (e.g., the ground water is a potential drinking water source and thus the MCL is relevant and appropriate, but attainment of the MCL is technically impracticable).

In contrast, an applicable requirement, once triggered at a site, must simply be met or waived. (For additional information on this issue, see "ARARs Q's and A's: General Policy, RCRA, CWA, SDWA & Administrative Record," Publication 9234.2-01/FS-A, July 1991.)

Q3. Are MCLGs potential ARARs for CERCLA sites?

A. Yes. Section 121(d)(2)(A) of CERCLA also requires on-site remedial actions to attain MCLGs under the SDWA "where they are relevant and appropriate under the circumstances" of the release or threatened release. Under the NCP, EPA requires that MCLGs set at levels above zero (i.e., non-zero MCLGs) be attained during a CERCLA cleanup where they are relevant and appropriate (i.e., generally for ground or surface waters that are current or potential sources of drinking water). If the MCLG is equal to zero, EPA determined under the NCP that the MCLG is not appropriate for setting cleanup levels. In those circumstances, the corresponding MCL will be the potentially relevant and appropriate requirement. (See section 300.430(e)(2)(i)(B) and (C) of the NCP, 55 FR 8848.)

REMINDER: Although MCLGs are potentially relevant and appropriate, they are never applicable requirements at a CERCLA response action because they are not enforceable "standards" or "levels of control."

Highlight 1:
Definitions of MCLs and MCLGs

Maximum Contaminant Levels (MCLs) are enforceable standards that apply to specified contaminants which EPA has determined to have an adverse effect on human health above certain levels. MCLs are set as close as feasible to MCLGs. Feasibility takes into account both technology and cost considerations.

Maximum Contaminant Level Goals (MCLGs) are non-enforceable health-based goals that have been established at levels at which no known or anticipated adverse effects on the health of persons occur and which will allow an adequate margin of safety.

See NCP Preamble, 55 FR 8750-8752.

Q4. What is the status of these regulations as potential ARARs for CERCLA projects?

A. These regulations were promulgated on January 30, 1991. The final MCLs and

Highlight 2: Status of Potential TBCs, RARs, and ARARs

Number of Final/ Reproposed MCLGs/MCLs	Potential To Be Considered (TBC)	Potential Relevant and Appropriate (RAR)	Potential Applicable, or Relevant and Appropriate (ARAR)
22 Final Non-Zero MCLGs	(Not Pertinent)	1/30/91 & Beyond	Not Applicable
31 Final MCLs	(Not Pertinent)	1/30/91 - 7/29/92	7/30/92 and Beyond
2 Treatment Techniques	(Not Pertinent)	1/30/91 - 7/29/92	7/30/92 and Beyond
4 Reproposed Non-Zero MCLGs	1/31/91 - 7/91[1]	7/91[1] & Beyond	Not Applicable
5 Reproposed MCLs	1/31/91 - 7/91[1]	7/91[1] - 1/93[2]	1/93[2] and Beyond

[1]Anticipated promulgation date
[2]Anticipated effective date

non-zero MCLGs for the 31 contaminants became potential relevant and appropriate requirements for all decision documents (i.e., Records of Decision (RODs) and Action Memoranda) signed on or after January 30, 1991. Because of the delayed effective date, the final MCLs for the 31 contaminants may be relevant and appropriate, but not applicable, for response actions carried out during the interim period prior to the effective date (i.e., between January 30, 1991 and July 29, 1992). In addition, the final non-zero MCLGs may be relevant and appropriate. For decision documents signed on July 30, 1992 and beyond, the MCLs for the 31 contaminants may be applicable or relevant and appropriate to the cleanup of ground water. See **Highlight 2** for the status of these regulations, outlining the critical dates for final and reproposed MCLGs and MCLs.

In contrast, the reproposed MCLs and non-zero MCLGs for the 5 additional contaminants are on a different regulatory track. They became potential criteria "to be considered" (TBCs) for all decision documents signed after January 30, 1991 and up to promulgation (on July 1, 1991). Because of the delayed effective date, for all decision documents signed between the date of promulgation (July 1, 1991) and the effective date (expected in January 1993), these MCLGs and MCLs may be relevant and appropriate, but not applicable. On their effective date (scheduled for January 1993) and beyond, the MCLs for the 5 additional contaminants may be applicable, or relevant and appropriate.

Q5. Are treatment techniques for drinking water contaminants in these regulations potential ARARs for CERCLA cleanups?

A. Generally, no. These NPDWRs have established treatment techniques for acrylamide and epichlorohydrin. These treatment techniques limit the amounts of acrylamide and epichlorohydrin that drinking water suppliers may add to treat contaminated drinking water. Since CERCLA projects generally do not supply drinking water as part of response actions, and often would be cleaning up contaminated ground water through methods (e.g., air stripping or natural attenuation) which do not involve the addition of these substances to treat contaminated ground water, these treatment techniques generally would not be relevant and appropriate requirements for the treatment of acrylamide and epichlorohydrin already found in the ground water. However, if a CERCLA project is supplying drinking water as part of the response action and is adding these substances as part of the treatment process, the treatment techniques would be potential ARARs.

Highlight 3: Jan. 30, 1991 National Primary Drinking Water Regulations

	1/91 Final MCLGs	1/91 Final MCLs	1/91 Reproposed MCLGs	1/91 Reproposed MCLs
Inorganics				
Asbestos	7.0 MFL	7.0 MFL	—	—
Barium	—	—	2	2
Cadmium	0.005	0.005	—	—
Chromium	0.1	0.1	—	—
Mecury	0.002	0.002	—	—
Nitrate	10.0 (as N)	10.0 (as N)	—	—
Nitrite	1.0 (as N)	1.0 (as N)	—	—
Total Nitrate and Nitrite	10.0 (as N)	10.0 (as N)	—	—
Selenium	0.05	0.05	—	—
Organics				
o-Dichlorobenzene	0.6	0.6	—	—
cis-1, 2-Dichloroethylene	0.07	0.07	—	—
trans-1, 2-Dichloroethylene	0.1	0.1	—	—
1, 2-Dichloropropane	0	0.005	—	—
Ethylbenzene	0.7	0.7	—	—
Monochlorobenzene	0.1	0.1	—	—
Styrene	0.1	0.1	—	—
Tetrachloroethylene	0	0.005	—	—
Toluene	1.0	1.0	—	—
Xylenes (total)	10.0	10.0	—	—
Pesticides/PCBs				
Alachlor	0	0.002	—	—
Aldicarb	—	—	0.001	0.003
Aldicarb sulfoxide	—	—	0.001	0.004
Aldicarb sulfone	—	—	0.001	0.002
Atrazine	0.003	0.003	—	—
Carbofuran	0.04	0.04	—	—
Chlordane	0	0.002	—	—
Dibromochloropropane (DBCP)	0	0.0002	—	—
2, 4-D	0.07	0.07	—	—
Ethylene dibromide (EDB)	0	0.00005	—	—
Heptachlor	0	0.0004	—	—
Heptachlor epoxide	0	0.0002	—	—
Lindane	0.0002	0.0002	—	—
Methoxychlor	0.04	0.04	—	—
Polychlorinated biphenyls (PCBs) (as decachlorobiphenyl)	0	0.0005	—	—
Pentachlorophenol	—	—	0	0.001
Toxaphene	0	0.003	—	—
2, 4, 5-TP (Silvex)	0.05	0.05	—	—

Q6. How will these regulations affect CERCLA RODs that were signed prior to January 30, 1991?

A. These MCLGs and MCLs should not affect CERCLA RODs that were signed prior to January 30, 1991. The NCP states that ARARs "freeze" at the time of ROD signature, and newly promulgated requirements need only be met where necessary for protectiveness. See section 300.430(f)(1)(ii)(B)(1) of the NCP, 55 FR 8850. This means that only requirements which are promulgated (i.e., published as final regulations) prior to the date of ROD signature are potential ARARs for those RODs. Since these SDWA requirements were not promulgated until January 30, 1991, they would not be ARARs for RODS signed before that date.

While these requirements would constitute "newly promulgated requirements" for pre-1/30/91 RODs, they are not expected to require changes to existing RODs during the five-year protectiveness review of the remedy. These new SDWA requirements are not replacing any MCLGs or MCLs that were outside the CERCLA risk range, with standards inside that risk range. Therefore, they should not require any remedy revisions to maintain protectiveness during the five-year review. (See also NCP Preamble, 55 FR 8757.)

Q7. Are there other requirements in these regulations that may be ARARs or TBCs for CERCLA cleanups?

A. Yes. These regulations also contain monitoring requirements which may be ARARs when a CERCLA project supplies drinking water to affected communities as part of the response action. (See NCP Preamble, 55 FR 8757.) The regulations also contain administrative recordkeeping and reporting requirements. Although such requirements are neither ARARs nor TBCs, the Regions are strongly encouraged to consult with other agencies, as appropriate, to ensure coordination. (See NCP Preamble, 55 FR 8757.)

Q8. Are there other proposed or promulgated SDWA regulations that are potential ARARs or TBCs for CERCLA actions?

A. Yes. On June 7, 1991, EPA promulgated final MCLGs for lead and copper (see 56 FR 26461, June 7, 1991). Copper now has an MCLG of 1.3 parts per million. This is a potential relevant and appropriate requirement for CERCLA ground and surface water remediation. However, the MCLG for lead was set at zero, which is not considered to be an "appropriate" standard for CERCLA cleanups. (See NCP Preamble, 55 FR 8751-8752.) This SDWA regulation did not set any MCLs for either contaminant, but it did set a treatment technique for lead which is a potential ARAR. (Note: EPA is planning to provide additional ARARs guidance on lead in the near future.)

In addition, NPDWRs for 24 contaminants were proposed on July 25, 1990 (see 55 FR 30370, July 25, 1990). From July 25, 1990 until their expected promulgation (expected in March 1992), the MCLs and non-zero MCLGs found in these proposed regulations constitute TBCs for the cleanup of ground water and may be considered for decision documents signed during that period. See **Highlight 4** for a chart of the 24 contaminants and their corresponding proposed MCLs and MCLGs.

This fact sheet does not address two other SDWA regulations: Final, for 8 volatile organic compounds, on July 8, 1987 (see 52 FR 25690), and, proposed, for the radionuclides radon, uranuim, and radium, on July 18, 1991 (see 56 FR 33050).

NOTICE: The policies set out in this fact sheet are not final Agency action, but are intended solely as guidance. They are not intended, nor can they be relied upon, to create any rights enforceable by any party in litigation with the United States. Response personnel may decide to follow the guidance provided in this fact sheet, or to act at variance with the guidance, based on an analysis of site-specific circumstances. The Agency reserves the right to change this guidance at any time without public notice.

Highlight 4: Proposed National Primary Drinking Water Regulations

TBCs until Promulgation Date (Expected in March 1992)

Inorganics	MCLGs	MCLs
Antimony	0.03	0.01/0.005
Beryllium	00.001	0.001
Cyanide	0.2	0.2
Nickel	0.1	0.1
Sulfate	400/500	400/500
Thallium	0.0005	0.002/0.001
Organics		
Andipates [Di(ethylhexyl)adipate]	0.5	0.5
Dalapon	0.2	0.2
Dichloromethane (methylene chloride)	0	0.005
Dinoseb	0.007	0.007
Diguat	0.02	0.02
Endothall	0.1	0.1
Endrin	0.002	0.002
Glyphosate	0.7	0.7
Hexachlorobenzene	0	0.001
Hexachlorocyclopentadine (HEX)	0.05	0.05
Oxamyl (Vydate)	0.02	0.02
PAHs [Benzo(a)pyrene]	0	0.0002
Phthalates [Di(ethylhexyl)phthalate]	0	0.004
Picloram	0.5	0.5
Simazine	0.001	0.001
1,2,4-Trichlorobenzene	0.009	0.009
1,1+2Trichlorethane	0.003	0.005
2,3,7,8-TCDD (Dioxin)	0	5x10(-8)