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MINUTES FOR BASE REALIGNMENT AND CLOSURE CLEANUP TEAM MEETING HELD 8 JANUARY 1998 KANSAS CITY MO

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DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

Jan. 28, 1998

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Meeting Minutes of the Richards-Gebaur BCT

Place: 15471 Hangar Road, Kansas City, Missouri

Date: Thursday, Jan. 8, 1998

Attending:
Peter Barrett, CH2MHILL
John Carr, AFBCA
Dale Cira, CH2MHILL
Tony Clymer, AFBCA
John Fringer, BEC
Guy Frazier, MDNR
Kay Grosinske, AFCEE/ERB
Don Kerns, MDNR
Robert Koke, EPA Region 7
Robert Lodato, AFBCA/OLQ
David Malecki, KCAD
Garey Reeves, OLQ
Bob Zuiss, OLQ
Syd Courson, CCI

AGENDA ITEMS

(Bold face highlights action items, persons responsible and applicable due dates.)

Item 1 (Approval of December 1997 Minutes)

Syd Courson, facilitator, said that Bob Koke of EPA had called him to express some concern about the detail in the minutes. Courson said he was trying to reach a happy medium between a skeleton document that just detailed actions and a lengthy journal or transcript, while still trying to capture the tenor of the meeting.

Koke took issue with three parts of the minutes.

1. He said that he thought the December minutes should reflect the reason that he said he could not comment on TCAT consultant Stan Hewins' summary of the Sept. 25, 1997, meeting in Jefferson City. He said that he was an environmental engineer, not an expert in toxicology, as Hewins. Koke said that means he is not Hewins' peer and therefore not qualified to approve his presentation. He asked that this explanation be placed in the December minutes. **Request was approved by BCT**.
2. Koke asked that his quote in the second paragraph on page 3 be deleted as not being relevant. **Request was approved by BCT**.
3. On the last paragraph of page 6, Koke objected to the use of his direct quote dealing with the way Hewins kept asking similar questions to MDNR representatives Don Kerns and Guy Frazier. Koke said the quote was accurate but that the minutes did not include all the questions that led up to his remarks about "badgering" MDNR. **It was decided that in place of his direct quote the minutes would be changed to read "Koke expressed his frustration with the continuing series of similar questions."**

Guy Frazier asked that the December minutes be corrected to read on page 3: "Kerns said Geller agreed to approve the October 1996 Minutes as long as the transcript was attached as part of the minutes record." **This change was accepted, as corrected, and the December minutes were approved.**

Item 2 (Radiation Survey Findings)

MDNR will have comments Jan. 19 on the Air Force radiation survey report it received Dec. 4, 1997. The purpose of the report is to determine if specific sites at Richards-Gebaur are free of Air Force-caused radiation. The specific sites are the three areas that had the potential for storing the depleted uranium tipped munitions.

Item 3 (State of Work Contract Status)

Kay Grosinske reported that the contract was awarded in December to CH2MHILL. Two of the company's representatives attended the meeting: Dale Cira (environmental scientist) and Peter Barrett (hydrologist). They spent Jan. 7 going over an 80-percent draft of the work plan, and hope to have the plan completed and presented within two weeks for BCT comments. Grosinske said she would like to follow this tentative time-line for approving contractor proposals.

- Whenever the contractors have something for the BCT to examine, such as the sample NFRAP Format or a list of ARARS, they will give it to the BCT members at their monthly meeting, with comments expected by the following BCT meeting.
- If it is a larger issue that may require more time, the contractor will try to get it to the BCT members two weeks before a meeting, with the comments expected at the second BCT meeting following submission.
- For smaller issues requiring less than a 30-day review, the contractor will deliver the document to the BCT accordingly.

Grosinske said this plan will allow ample time to discuss issues, while keeping to a firm schedule for action.

Grosinske said there were 14 original NFRAPS that were recalled by the Air Force, and she and the contractors are anticipating there will still be 14. She told Kerns that because he has concerns about the fuel hydrant line and the industrial waste line being linked together, she and the contractors will look at them separately.

She said that following her time line for actions, the suggested NFRAP format will be presented at the Feb. 5, 1998 meeting . (Subsequent to meeting, the date for the next meeting was changed to Feb. 2, 1998). BCT action on the format is expected at the March 5, 1998, BCT meeting.

She said CH2MHILL will try to compile the list of ARARS in time to submit them at the March BCT meeting, with comments expected at the April 2, 1998, meeting.

She said the contractors will already have been working on the NFRAPS, so once the comments on the ARARS are received the Air Force will have a special meeting in April to make sure the NFRAPS are in the proper form to submit to BCT members. She said they will be submitted to the BCT members in mid-April, and will be on the June 4, 1998 BCT meeting agenda, allowing approximately 45 days for review.

Kerns remarked that Grosinske was talking only about NFRAPS, and asked what happened to the Operable Units that had been adopted by the BCT. Grosinske said that any site requiring additional soil study or soil remediation would be placed in the appropriate OU, and any site requiring additional ground water study or remediation would fall into the other OU.

Kerns asked how the contractors would identify ARARS.

Cira responded that they would research statutes, records, guidance, including Records of Decision used elsewhere in the state, previously developed documents that might have ARARS, plus contacts with EPA and MDNR program managers to supplement the list. Cira said the list then will be submitted to MDNR and EPA for review and for any suggestions the two agencies cared to make

Grosinske said the contractor will identify data gaps where data is missing or needed. She pointed out that if one site has been over-checked, and the other site has been adequately checked, it does not necessarily mean that more work has to be done on the adequately checked site.

Koke suggested that an EPA contractor's report on where it thought there were data gaps on ground water at Richards-Gebaur might be a good place to start.

Cira said he was aware of that report.

Grosinske said the contractors' report could be ready in time for the July RAB meeting.

Courson, referring to contractors' comments about seeking ARARS rather than asking MDNR and EPA to furnish them, asked how that squared with the letter Fringer was going to write to MDNR and EPA formally requesting ARARS.

Grosinske said she was told the letter did not go out.

Fringer said that was correct, that the letter was not sent.

Kerns asked if that meant Fringer was withdrawing his request to have the EPA Region 3 Screening Table be considered screening levels for R-G

Fringer said that request was not being withdrawn, and that they would be used if they are appropriate.

Cira said, "They will be identified as potential ARARS, but there will be others as well, and the final listing of what actually will be applicable for each of these sites may vary from the original list of ARARS as developed."

Item 4 POL Yard Status.

MDNR asked for an extension until Jan. 30 for response. Fringer commented that Kerns had indicated he would have a response by Dec. 19. Kerns said that the UST section had reached a decision in the past, and MDNR was just trying to confirm it. Kerns said, "The decision was that it is a UST. I don't know if that's the best way to approach the problem, though. I don't think you want to see it as a UST." Grosinske agreed.

The extension until Jan. 30 was approved

Item 5 (Old/new business/comments)

A -- OL Closure

John Carr discussed the OL closing and regionalization. He and Garey Reeves, Site Manager, called the plan a living document, that will be shaped to accommodate changing conditions.

Carr said the that when the OL is shut down (scheduled Sept. 30, 1998), Tony Clymer of AFBCA, based at Rickenbacker Air Force Base, will have overall responsibility for Richards-Gebaur. He said he, Clymer and Reeves have worked on the plan, and "We're trying to make this a seamless transition, as tightly woven as possible." The BCT will continue to function, but without support staff at Richards-Gebaur, and without facilities, such as a building for a records repository. He said the BCT can meet in Kansas City, in Jefferson City, or anywhere the BCT selects.

Grosinske expressed concern about where administrative files and other documents would be kept. She said that sometimes it is helpful to have the files on hand to so that BCT members could refer to them.

Clymer said keeping the continuity of the files is important, and that he has had similar accountabilities in dealing with other OLs.

Reeves said Clymer will have all those responsibilities, and that he has demonstrated he can handle it.

Clymer said, "We're supporting numerous bases. It's not new ground."

B -- Oil Water Separator 965

Fringer asked about the status of Oil Water Separator 965.

Zuiss said that environmental sampling was to have occurred today (Jan. 8) but the contractor, citing some personnel issues, said it would have to be rescheduled.

Zuiss said the contractor agreed to give the Air Force "the opportunity to reschedule it at our convenience. Any time you recommend, we will have him do it at that time." Zuiss asked MDNR if it wished to participate and Kerns responded that someone from MDNR would be on hand to take split samples.

The BCT asked Zuiss to schedule the sampling the morning of Jan. 15, with the results due within three weeks.

C -- PA-SI Status of X001 (Belton Training Area)

Fringer reported on the status of the PA-SI of X001 Belton Training Area. He said he has almost finished his review, and should have it ready for distribution within two weeks.

D -- Status of OL Staff

Reeves discussed the OL personnel situation, explaining the machinery that is in place for helping the civilian employees find other jobs in the system. Reeves said he will retire Sept. 30, 1998.

E -- Turnover of R-G to Kansas City Aviation Department.

Reeves explained that the base re-use plan calls for the city of Kansas City to acquire title once all remediation work is completed on the remaining sites under BCT domain. However, the re-use plan is based on the existence of a general aviation airport. The Kansas City Aviation Department has operated the airport since receiving the airport facilities from the General Services Administration in 1985. Now, Kansas City has asked the Federal Aviation Administration for permission to close the airport. Reeves said that "there is some question in my mind whether we can transfer this other property ... if we know the airport is closing."

He said that in such a case, the city will have to find some other way to obtain the property, such a port conveyance, which Reeves said seems questionable, or through an Economic Development Conveyance (EDC) Reeves said that whatever avenue is taken, the actual transfer of the remaining portion of R-G may be a long way off. He also said there is no deadline for the FAA to reach a decision on the city's request for the airport to be closed.

F -- Dispute Resolution

Courson asked, for clarification, if the Dispute Resolution pending with the Air Force and the State of Missouri precluded discussion of any issues. **The consensus was that only the Dispute Resolution itself was off limits.**

G -- Facilitation

Reeves pointed out that BCT has a facilitator that presides over the meetings, directs the discussion and keeps the official minutes. He said "The only way he can facilitate is if all parties agree. It is his intention to stay on the agenda. His minutes will cover all of this from all three perspectives. I ask that we all agree we will abide by his facilitation." **BCT Members agreed.**

H - February Agenda

The following items were selected for the February 5 BCT agenda (Other items may be added):

Draft NFRAP Format

POL Yard status

Evaluation & Consolidation Status

Radiation Survey

OL Phasedown Status

OWS 965

Meeting Adjourned

Minutes compiled and submitted by:

Syd Courson

Attachment:
EPA Memo on ARARs

BCT PROJECT TEAM MEETING MINUTES ABSTRACT
8 January 1998
8:30 a.m. , AFBCA Conference Room, Building 926

ITEM	TOPIC	DESIRED OUTCOME	RESPONSIBLE PERSON	ACTION
1	Review Minutes	Approval	Facilitator	**Minutes approved with revisions**
2	Radiation Survey Findings	Comments from MDNR on radiation survey report the Air Force submitted Dec. 4	MDNR	**MDNR comments expected by Jan. 19, 1998**
3	State of Work Contract Status	Review of progress	AFCEE	**Contract awarded in December 1997 to CH2MHILL. Draft NFRAP format ecxpected to be submitted at February 1998 BCT meeting. Contractor will compile list of ARARS for submission at March BCT meeting, with comments due at the April meeting.**
4	POL Yard Status	Determination by MDNR whether it considers POL Yard a UST site.	MDNR	**MDNR asked for and received an extension until Jan. 30 for its response.**
5A	OL Closure	Informational	AFBCA	None
5B	Oil Water Separator 965	Status of sampling	OL	**Sampling was rescheduled from Jan. 8 to Jan. 15.**
5C	PA-SI Status of X001 (Belton Training Area)	Status report	OL	BEC reported he had nearly completed his review .
5D	Status of OL staff	Informational	AFBCA Site Manager	None
5E	Turnover of R-G to KCAD	Informational	OL	None
5F	Dispute Resolution	Informational	BCT	None

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: ARARs Explained In Twelve Pages

FROM: Tom Sheehan, Acting Director
Office of Program Management

TO: Distribution

We think you will find the enclosed paper useful for your staff as a brief review of a complex area of EPA policy and procedures. We have prepared "Introduction to ARARs: Applicable or Relevant and Appropriate Requirements" to help the Technology Innovation Office provide training about the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

In completing this paper as the ARARs chapter to meet the short publication deadline of the newly revised CERCLA Orientation Manual, we were grateful to receive timely assistance from an expert review team. The team was composed of participants from all divisions of the Office of Emergency and Remedial Response, as well as from the Office of Waste Programs Enforcement and the Office of General Counsel.

We are enclosing a single-sided copy for the use of your office to facilitate duplication of this paper for distribution to staff. For further information, inquiries may be directed to Rhea Cohen of my staff at (202) 260-2200.

INTRODUCTION TO ARARs:

APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Compliance with the applicable or relevant and appropriate requirements (ARARs) of other environmental laws is a cornerstone of CERCLA. To avoid simply displacing the contamination at a site from one medium (i.e., air, soil, water) into another, identification of ARARs is the major prerequisite for setting cleanup goals, selecting the remedy, and determining how to implement the remedy while assuring protection of human health and the environment. However, the diverse characteristics of CERCLA sites preclude the development of prescribed ARARs, so that, by necessity, identification of ARARs is conducted on a site-by-site basis. This paper is designed to introduce the reader to the basic policies and procedures for implementing ARARs and to foster consistent, nationwide application of these policies and procedures.

DEFINITION OF ARARs

Congress provided a statutory basis for ARARs in the Superfund Amendments and Reauthorization Act (SARA) of 1986, which added Sec. 121, "Cleanup Standards", to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. According to Sec. 121(d), which mandates the degree of cleanup that must be achieved on CERCLA sites, response actions conducted under Sections 104, "Response Authorities", and 106, "Reimbursement", of the statute must at least attain (or the decision document should justify the waiver(s) of) all applicable or relevant and appropriate requirements (ARARs) of other Federal environmental laws, more stringent State environmental laws, and State facility-siting laws. ARARs include:

- Any standard, requirement, criterion, or limitation under any Federal environmental law, such as the Toxic Substances Control Act (TSCA), the Safe Drinking Water Act (SDWA), the Clean Air Act (CAA), the Marine Protection, Research, and Sanctuaries Act (MPRSA), and the Resource Conservation and Recovery Act (RCRA).

- Any promulgated standard, requirement, criterion, or limitation under a State environmental or facility-siting law, including those contained in EPA-approved programs, that has been identified by the State to EPA in a timely manner.

SARA modified the waivers listed in the 1985 National Contingency Plan (the NCP, 40 CFR Part 300.68 (1985)) and established State standards as ARARs if they have been promulgated, are enforceable, and are more stringent than similar Federal standards. For the purposes of CERCLA, the term "State" includes the Territories and Possessions of the United States, as well as the Federally-recognized Indian tribes. In March 1990, EPA promulgated revisions to the National Oil and Hazardous Substances Contingency Plan (NCP) that incorporate the ARARs provisions contained in SARA.

Applicable Requirements and Relevant and Appropriate Requirements

ARARS consist of two sets of requirements, those that are applicable and those that are relevant and appropriate. Applicable requirements are those substantive standards that specifically address the situation at a CERCLA site; however, an applicable requirement need not have been promulgated specifically to apply to CERCLA sites. Decisionmakers have minimal discretion in determining whether a requirement is legally applicable; if the jurisdictional prerequisites of the requirement, when objectively compared to the circumstances at the site, show a direct correspondence, the requirement is applicable. These prerequisites consist of identifying: (1) who is subject to the statute or regulation; (2) what types of substances or activities fall under the authority of the statute or regulation; (3) what is the time period for which the statute or regulation is in effect; and, (4) what types of activities does the statute or regulation require, limit, or prohibit. If a requirement is not legally applicable, a decisionmaker must exercise best professional judgment to determine whether it is relevant and appropriate under the circumstances of the release of contamination.

The procedure for determining whether a requirement is relevant and appropriate is a two-step process. First, to determine relevance, the decisionmaker must determine whether the requirement addresses problems or situations sufficiently similar to the circumstances of the proposed response action. Second, for appropriateness, the determination must be made as to whether the requirement would also be well-suited to the conditions of the site. There are eight comparisons which must be made, where pertinent, in determining relevance and appropriateness (40 CFR Part 300.400(g)2)):

- The respective purposes of the requirement and of the CERCLA action;
- The medium regulated or affected by the requirement and that which is contaminated or affected at the CERCLA site;
- The substances regulated by the requirement and those found at the CERCLA site;
- The activities regulated by the requirement and the remedial action contemplated at the CERCLA site;
- Any variances, waivers, or exemptions of the requirement and their availability for the circumstances at the CERCLA site;
- The respective type of place regulated and that affected by the release or CERCLA action;
- The type and size of the structure or facility regulated, and such affected by the release or contemplated by the CERCLA action; and,
- Any consideration of use or potential use of affected resources.

respectively, in the requirement and at the CERCLA site.

Note that in some cases, only a portion of a requirement will be both relevant and appropriate. Once a requirement is deemed relevant and appropriate, it must be attained (or waived). If a requirement is not both relevant and appropriate, it is not an ARAR.

To-Be-Considered Requirements (TBC's)

Many Federal and State environmental and public health agencies develop criteria, advisories, guidance, and proposed standards that are not legally enforceable but contain information that would be helpful in carrying out, or in determining the level of protectiveness of, selected remedies. In other words, "to be considered" (TBCs) materials are meant to complement the use of ARARs, not to compete with or replace them. Because TBCs are not ARARs, their identification and use are not mandatory.

In conjunction with the completion of the baseline risk assessment, where no ARARs address a particular situation, or the existing ARARs do not ensure sufficient protectiveness (e.g., because of cumulative effects due to either multiple pathways for exposure to a contaminant, or multiple contaminants in a single pathway), the TBC advisories, criteria, or guidelines should be used to set cleanup targets. In such cases, health advisories or toxicity values, together with standardized exposure assumptions, are used in setting the preliminary remediation goals.

Also, TBCs may be invaluable in deciding how to carry out a particular remedy. Many ARARs have broad performance criteria but do not provide specific instructions for implementation. Often those instructions are contained in supplemental program guidance.

SCOPE OF ARARs

ARARs are identified on a site-by-site basis for all on-site response actions where CERCLA authority is the basis for cleanup. The lead agency (e.g., EPA, another Federal agency, or a State) as well as the supporting agencies must identify and discuss information about potential ARARs with each other. For Fund-financed CERCLA sites and for those actions taken pursuant to CERCLA Section 106 authority, EPA makes the final decision on ARARs. Cleanups at all CERCLA sites, regardless of which agency has the lead, must comply with (or waive) ARARs. It is important to recognize that CERCLA addresses two types of response actions, remedial and removal; two classes of requirements, substantive and administrative; and, two cleanup locations, on-site and off-site.

Remedial Actions

According to CERCLA and the 1990 NCP, all remedial actions taken under CERCLA

must meet ARARs at the completion of the action (or justify a waiver). Further, the 1990 NCP requires CERCLA remedies to attain or waive ARARs during the course of a remedial action. Moreover, where an ARAR requires a permit, CERCLA provides for the on-site work to comply with only the substantive, but not the administrative, requirements of the ARAR. Complying with ARARs both during the implementation and upon completion of an action helps the lead agency assure that the activity can be carried out in a manner that is protective of human health and the environment.

Removal Actions

Although the statute specifies ARARs only for on-site remedial actions, the implementing rule, the NCP (at 40 CFR Part 300.415(i)), requires removal actions to attain ARARs to the extent practicable, considering the exigencies of the situation at the site. Regulations under other environmental and public health laws may help determine the appropriate manner in which to proceed with a removal action. Removal actions generally focus on the stabilization of a release or threat of release and mitigation of near-term threats. For example, a removal action may be conducted to remove large numbers of leaking drums and the associated contaminated soil.

EPA has adopted two criteria for determining practicability: the urgency of the situation and the scope of the removal action. Because of the urgency at the site, an On-Scene Coordinator (OSC) may have to undertake an immediate response to remove or stabilize leaking drums near a residential area in order to prevent a fire or explosion. Where such conditions constrain or preclude efforts to identify and attain ARARs, the OSC's documentation of these conditions will be considered sufficient basis for justifying not attaining all ARARs. Where a removal action is for a limited purpose (e.g., to address a direct-contact threat to nearby schoolchildren), attainment of soil cleanup ARARs that would require a more extensive response action may be beyond the scope of the removal action, and, therefore, unpracticable. Moreover, requirements are only ARARs when they pertain to the specific action(s) undertaken on-site. For example, if the removal of the drums also included excavating highly contaminated soil, the removal action would not have to meet standards for other media, if those standards might be ARARs for a final remedial action at the site.

Substantive Requirements

Although a substantive requirement usually specifies a level or standard of control, it could instead provide performance criteria or location restrictions. In addition, monitoring requirements are considered substantive, for the purpose of ascertaining whether the levels and limitations set in the decision document have been attained.

Remedies conducted entirely on-site must comply with only the substantive provisions of requirements that are ARARs, pursuant to CERCLA Sec. 121(d)(2). Also, CERCLA Sec. 121(e)(1) specifically exempts on-site actions from obtaining Federal, State, and local permits,

although the substantive provisions of permitting programs that are ARAR must be met (or waived). This permit exemption applies to all on-site CERCLA activities both before and after the remedy has been selected. The exemption applies regardless of whether the lead agency is EPA, another Federal agency, or a State, when the activity (which could be an investigation or a Sec. 106 action) is conducted entirely on-site.

Administrative Requirements

Exemption from administrative requirements for on-site actions promotes expeditious response to protect human health and the environment from actual and potential threats at CERCLA sites. Congress recognized that subjecting CERCLA decisionmaking to the myriad of overlapping and potentially disparate administrative requirements of other Federal and State laws might significantly lengthen response time. Moreover, CERCLA has its own set of procedures designed to promote the type of consultation and public review generally achieved during the permit application process. These procedures address the remedy selection process and also provide opportunities for systematic State and community involvement.

Administrative requirements consist of those mechanisms that facilitate the implementation of the substantive requirements of statutes or regulations. In other words, requirements that in and of themselves do not define a level or standard of control are considered administrative; e.g., approval by or consultation with administrative bodies, application for permits, documentation, reporting, and recordkeeping. However, EPA recognizes the benefits of consultation, coordination, reporting, and other such practices and strongly encourages decisionmakers to engage in these activities, as well.

On-Site vs. Off-Site

CERCLA and the NCP provide decisionmakers with guidelines on the ways to determine whether actions will be conducted on-site. In the NCP, the term "on-site" means the geographical (or, as the NCP calls it, the "areal") extent of the contamination and all suitable areas in very close proximity to the contamination that are necessary for implementation of the response action. In this definition EPA includes both the surface area and the air above the site, as well as the hydrogeologic contamination beneath the surface, including the ground-water plume.

This broad definition of "on-site" provides EPA with flexibility in situations where implementation necessitates conducting activities outside of the waste area itself and/or in areas not contiguous to the site. Cleanup actions that fall within this definition must meet the substantive but not the administrative requirements. On the other hand, response actions carried out off-site are simply subject to applicable law, including administrative requirements and any specified procedures for obtaining permits. For off-site actions, of course, no analysis of relevant and appropriate requirements is needed, and no statutory ARARs waivers are available.

TYPES OF ARARs

Any substantive environmental (or State facility-siting) requirement has the potential to be an ARAR. Due to the complexity of the universe of such requirements, EPA divides ARARs into three categories to facilitate identification:

- **Chemical-specific ARARs** usually are either health- or risk-based numerical values or methodologies that establish the acceptable amount or concentration of a chemical that may remain in or be discharged to the environment. Where more than one requirement addressing a contaminant is determined to be ARAR, the requirement that should be used is the one that is the most stringent. Note, however, that in some cases, a less stringent requirement is more well-suited to the circumstances at a site, such that a more stringent requirement will not be deemed to be relevant and appropriate under the circumstances.

- **Location-specific ARARs** generally restrict certain activities or limit concentrations of hazardous substances solely because of geographical or land use concerns. Requirements addressing wetlands, historic places, floodplains, or sensitive ecosystems and habitats are potential location-specific ARARs.

- **Action-specific ARARs** usually are restrictions on the conduct of certain activities or the operation of certain technologies at a particular site. Regulations that dictate the design, construction, and operating characteristics of incinerators, air stripping units, or a landfill construction are examples of action-specific ARARs.

Some ARARs might not fit neatly into any one of these categories while others may qualify for more than one. Even if an ARAR does not fall into any such category, it may still be an ARAR if it meets all the jurisdictional definitions for a requirement to be an ARAR.

TIMING OF COMPLIANCE

Although CERCLA stipulates only that ARARs must be met at the completion of the remedial action, the NCP requires attainment of ARARs during remediation, as well. During the course of the Remedial Design/Remedial Action (RD/RA), the lead agency is responsible for ensuring that all Federal and State ARARs identified for the action are being met, unless a waiver has been invoked.

An example is air stripping. Air stripping units designed to treat ground water contaminated with volatile organic compounds (VOCs) have the potential to emit VOCs into the air. Where Federal and State ARARs governing air emissions of VOCs or the operation of air strippers have been identified, the remedial action should attain those ARARs during the course of cleanup. However, ARARs that are used to determine final remediation levels

apply only at the completion of the action. Thus, in the air-stripping example, the ground-water cleanup levels would not be met until the completion of the air-stripping action, which could last as little as a few months to several decades.

CERCLA provides a number of waivers, including one for interim actions, as long as the final action attains the waived standard. If there is doubt about whether an ARAR can be met during the remedial activity, but no doubt that it will be met at completion of the remedy, this waiver can be considered.

POINT OF COMPLIANCE

Points of compliance for attaining precise remediation levels are established on a site-specific basis. There are some general policies for establishing points of compliance. For ground water, remediation levels should generally be attained throughout the contaminated plume, or beyond the edge of the waste management area when waste is left in place (as in a closed, capped landfill). EPA does acknowledge, however, that in specific ground-water cases, an alternative point of compliance might be more protective of public health and the environment. For air, the selected levels should be established for the maximum exposed individual, considering reasonably expected use of the site and surrounding area. For surface waters, the selected levels should be attained at the point, or points, where the release enters the surface waters.

WAIVERS

In certain instances, EPA may choose an on-site cleanup method which does not meet an ARAR. CERCLA Sec. 121(d) establishes six conditions under which an ARAR may be waived:

- Interim Measure
- Greater Risk to Health and the Environment
- Technical Impracticability
- Equivalent Standard of Performance
- Inconsistent Application of State Requirements
- Fund-Balancing

These waivers can be used for both remedial and removal actions; they apply to ARARs compliance only on-site. One of these waivers must be invoked for each ARAR that the remedy will not attain. Other statutory requirements, such as the one mandating remedies that

are protective of human health and the environment, may not be waived.

Interim Measure

The Interim Measure waiver (CERCLA Sec. 121(d)(4)(A)) is for a temporary action that does not attain all ARARs, but will be followed by measures that will complete the cleanup and attain all ARARs. The interim action should neither exacerbate the problems at the site nor interfere with the final remedy. An Interim Measure waiver may be useful when a final remedy is divided into several smaller actions or operable units.

Greater Risk to Health and the Environment

The Greater Risk to Health and the Environment waiver (CERCLA Sec. 121(d)(4)(B)), is for situations in which compliance with an ARAR would result in greater risk than noncompliance. Before invoking this waiver, site decisionmakers need to consider the magnitude, duration, and reversibility of adverse impacts resulting from compliance with such an ARAR, as compared with the protectiveness of a remedy that is not in compliance. Only for ARARs that would cause greater risk can one invoke this waiver.

Technical Impracticability

The Technical Impracticability waiver (CERCLA Sec. 121(d)(4)(C)) may be used when compliance with an ARAR is infeasible from an engineering perspective. The term "impracticable" means an unfavorable balance of engineering feasibility and reliability.

Because engineering is ultimately limited by costs, estimated costs are a legitimate--but not the primary--consideration in determining feasibility

Equivalent Standard of Performance

The Equivalent Standard of Performance waiver (CERCLA Sec. 121(d)(4)(D)) may be invoked when an ARAR can be equaled or exceeded through an alternate cleanup method, which should achieve contaminant limitations and demonstrate reliability and effectiveness as a system. Although this permits flexibility in choosing a cleanup technology, it must not reduce the standard of performance or the required level of control.

Inconsistent Application of State Requirements

CERCLA Sec. 121(d)(4)(E) allows the selection of a remedy that does not comply with a State ARAR when that State has applied that particular requirement inconsistently. The

waiver is designed to avoid unreasonable restrictions at CERCLA sites if those State requirements have not been applied to non-CERCLA sites. Because EPA presumes State standards are applied consistently, the State does not have to document consistency unless requested to do so. Variably applied or inconsistently enforced State standards may prompt the invocation of this waiver. A single example of the State's having chosen or approved a less stringent standard than that specified in the ARAR may be sufficient justification for the waiver.

Fund-Balancing

A Fund-Balancing waiver (CERCLA Sec. 121(d)(4)(F)) may be applied when the cost of attaining an ARAR for a solely Fund-financed action does not represent a reasonable balance between the availability of Fund monies for remedies at other sites and the degree of protection anticipated at the site. In other words, the waiver may be invoked when meeting an ARAR would entail such cost in relation to the added degree of protection or reduction of risk that remedial action at other sites might be jeopardized. As with all waivers, however, the selected remedy still must comply with the statutory requirement for protectiveness.

It is EPA policy to routinely consider, though not necessarily to invoke, this waiver when the cost of attaining an ARAR is four times the national average cost of an operable unit. For example, the threshold amount in 1991 was approximately $57.6 million. The waiver may be considered at funding levels below the threshold, as well

ARARs: CERCLA's RELATIONSHIP TO OTHER LAWS

The Nation's goal to protect human health and the environment led to the enactment of environmental laws which address releases, or threats of releases, of hazardous substances. Each environmental statute has its own focus, whether to control the level of pollutants introduced into a single medium or to address a specified area of concern, such as pesticides or waste cleanup. The following charts summarize how four major Federal statutes interact with CERCLA actions.

RCRA	The **Resource Conservation and Recovery Act** (RCRA, 42 USC Secs. 6901-6987) was enacted in 1976 to address the problem of how to safely dispose of huge volumes of newly-generated solid and hazardous waste. RCRA authorizes a general regulatory program for the "cradle-to-grave" management of all process wastes that are hazardous, and requires corrective action for releases of such wastes. • RCRA standards may be potential ARARs and may be central to selecting remedies at certain CERCLA sites. In assessing cleanup remedies, CERCLA requires EPA to consider the long-term uncertainties associated with land disposal, long-term maintenance costs, and other considerations typical of RCRA (RCRA Orientation Manual, EPA Pub. No. 530-SW-90-036). • RCRA implements (at 40 CFR Parts 240-280) four distinct, yet interrelated, regulatory programs: **Subtitle C Hazardous Waste Management Program** sets national standards for hazardous waste management and provides for oversight of State implementation of RCRA; **Subtitle D Solid Waste Management Program** sets national standards for the management of solid waste (e.g., municipal solid waste landfills); **Subtitle I Underground Storage Tank (UST) Program** is designed to protect ground water from leaking underground storage tanks; and, **Subtitle J Medical Waste Program** establishes a two-year demonstration program to track medical waste from generation to disposal. • Subtitle C hazardous waste requirements most directly relate to CERCLA because of the similarity of sites and wastes. The standards for managing hazardous waste affect many CERCLA response decisions (e.g., which off-site disposal facility to use or which regulatory requirements to consider in response actions). • Example of the use of RCRA: Whenever a CERCLA remedial action involves on-site treatment, storage, or disposal (TSD) of hazardous waste, the action must meet RCRA technical TSD standards (40 CFR Part 264). • Although a hazardous waste might not be specifically a RCRA-listed hazardous waste, RCRA regulations may be found to be relevant and appropriate to a CERCLA site. Thus, RCRA can directly influence remedial action design and implementation. • For ARARs information concerning Land Disposal Restrictions and other RCRA requirements, refer to the RCRA section of the Compendium of CERCLA ARARs Fact Sheets and Directives (EPA Pub. No. 9347.3-15). (please see following chart)

CWA	The objective of the **Clean Water Act** (CWA, 33 USC Secs. 1251-1376), enacted in 1977 and amended by the Water Quality Act of 1987, is to restore and maintain the quality and integrity of the United States' surface waters. The control of discharges to these waters is accomplished by means of Federal and State discharge standards. • The CWA provisions (40 CFR Part 122) that are most likely to be ARARs for CERCLA actions address: (1) water quality criteria; (2) surface-water quality; (3) direct discharges to surface waters; (4) indirect discharges to publicly-owned treatment works (POTWs); and, (5) discharges of dredge-and-fill materials into surface waters, including wetlands. • CERCLA Sec. 121(d)(2)(B)(i) says that hazardous substances, pollutants, or contaminants left on-site at the conclusion of the remedial action shall attain Federal water quality criteria, where relevant and appropriate under the circumstances of the release. • According to CWA Sec. 303, States must promulgate water quality standards, and these will be applicable to CERCLA discharges. States are required to establish numerical or narrative standards which will be used to protect the designated use of the water body. These State water quality standards are based on Federal water quality criteria developed by EPA. • Effluent guidelines are set by the permitting authority, either EPA or the State. These guidelines are numerical values or standards which any discharge must meet and with which a CERCLA discharge must comply.
CAA	The **Clean Air Act** (CAA, 42 USC Secs. 7401-7642) is a comprehensive Federal statute designed to control and abate air pollution through regulation of air emissions from mobile and stationary sources. It involves a series of interrelated regulatory programs implemented by Federal, State, and local authorities. While the initial legislation addressing air pollution was enacted in 1955, the CAA of 1963 is generally considered to be the precursor of today's CAA. The CAA was further amended in 1967, 1970, 1977, and in November 1990. • The Act is implemented at 40 CFR Parts 50-99. For six pollutants (carbon monoxide, lead, nitrogen dioxide, particulate matter equal to or less than 10 microns particle size (PM_{10}), ozone which results from the emissions of volatile organic compounds (VOCs), and sulfur oxides) the National Ambient Air Quality Standards (NAAQS) have been established (40 CFR Part 50). States are responsible for implementing the NAAQS, which are potential ARARs in those States that have furnished EPA their State Implementation Plans (SIPs) stating their strategy for achieving and maintaining the NAAQS. • The CAA and CERCLA interact in two ways: (1) CAA hazardous air pollutants are included as CERCLA hazardous substances, and, (2) CAA emissions limitations may become potential ARARs for CERCLA responses. Note that some air emissions limits are promulgated under RCRA (40 CFR Parts 264 and 269). • CAA emissions limitations may become ARARs for CERCLA responses in three ways: they provide triggers for Superfund action (i.e., if baseline conditions (pre-cleanup) exceed air standards, action may be warranted), cleanup standards for addressing unremediated conditions, and emission standards for cleanup technologies employed in a response action. (please see following chart)

SDWA

The **Safe Drinking Water Act** of 19[illegible] (42 USC Secs. 300f-300j-11) was last amended in 1986. It requires EPA to establish regulations to protect human health from contaminants in drinking water. CERCLA Sec. 121(d)(2)(A)(i) requires an on-site CERCLA remedial action to attain SDWA standards or levels of control where they are ARARs. Also, CERCLA Sec. 121(d)(2)(A) requires remedies to attain non-zero Maximum Contaminant Level Goals (MCLGs), where relevant and appropriate under the circumstances of the site.

- The SDWA implements (at 40 CFR Parts 141-143) the following programs: (1) Drinking water standards; (2) Underground Injection Control programs; and, (3) Sole-Source Aquifer and Wellhead Protection programs. Each of these programs either contains standards which may be potential ARARs or has developed guidance "to be considered" (TBCs) for certain CERCLA actions such as ground-water remediation.

- SDWA regulations apply to CERCLA site discharges by establishing cleanliness standards, placing restrictions on technology, and triggering response actions at the sites.

- Primary drinking water standards, which consist of contaminant-specific standards [illegible] as Maximum Contaminant Levels (MCLs), are enforceable at the Federal level. MCLs are set as close as feasible to MCLGs, which are strictly health-based and do not take into account cost or feasibility of attaining the goals. While EPA sets and enforces the Federal MCLs and MCLGs, States may adopt and enforce more stringent primary standards. Secondary standards to regulate the aesthetic quality of water supplies are not enforceable at the Federal level, unless incorporated into a binding State standard.

- MCLs and non-zero MCLGs are generally relevant and appropriate for water [illegible] or [illegible] can be used, for drinking. The MCLs are established according to MCLGs as appropriate [illegible] the site. A proposed MCL is a TBC where no promulgated standard exists.

An example of how SDWA regulations become potential ARARs in a CERCLA action is the use of MCLs to set cleanup goals for ground water contaminated with volatile organic compounds (VOCs). EPA has established enforceable MCLs for VOCs in public drinking water supplies. These MCLs are usually not applicable but may be relevant and appropriate [illegible] remediating ground water used for drinking.

[illegible]

[illegible] information on the subject of ARARs for CERCLA actions can be found in these documents [illegible] order [illegible] (publication number):

[illegible] *Contingency Plan and Index* (EPA/OERR Pub. No. 9200.2-14)

[illegible] *Questions & Answers Fact Sheet: Revised NCP* (EPA Pub. No. 9234.2-[illegible])

ARARs Handbook (EPA Pub. No. 9234.2-23)

[illegible] *training Course* (EPA Pub. No. 9234.2-24)

- *Compendium of CERCLA ARARs Fact Sheets and Directives* (EPA Pub. No. 9347.3-15) (current through August 1991; for later ARARs documents, see latest catalog of Superfund Program publications)

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