

Project file



DEPARTMENT OF THE ARMY  
ST. LOUIS DISTRICT, CORPS OF ENGINEERS  
8945 LATTY AVENUE  
BERKELEY, MISSOURI 63134

REPLY TO  
ATTENTION OF:

August 2, 2001

Formerly Utilized Sites Remedial Action Program

SUBJECT: Response to Missouri Department of Natural Resources Proposed List of Applicable or Relevant and Appropriate Requirements (ARARs)

Mr. Robert Geller  
Federal Facilities Section, HWP  
Missouri Department of Natural Resources  
PO Box 176  
Jefferson City, Missouri 65102-0176

Dear Mr. Geller:

In your letter dated May 9, 2001 (copy enclosed), the Missouri Department of Natural Resources (MDNR) proposed that portions of 19 CSR 20, 10 CSR 20, and 10 CSR 23 be reconsidered for inclusion as ARARs in the St. Louis North County Site Feasibility Study and Proposed Plan. MDNR also requested that the United States Army Corps of Engineers (USACE) review their response and provide a more detailed reason why these should not be ARARs for the North County Site or make the proper corrections. The following information is provided with respect to the changes proposed by MDNR:

**Comment 1: 19 CSR 20 Sections 10.040, 10.050, 10.070, and 10.090**

These regulations may not detail direct cleanup standards, regulations, criteria, or limitations, but they should be used to ensure that safe levels of radiation from the site are maintained thereby protecting the public.

**Response 1:**

The above regulations are employee protection laws rather than environmental laws with which Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response actions must comply. Therefore, these requirements are not subject to the ARAR process. The operations at the North County Site will comply with the USACE occupational safety program (ER 385-1-92, ER 385-1-80, EM 385-1-1, and EP 415-1-266). The St. Louis Formerly Utilized Sites Remedial Action Program (FUSRAP) will continue to perform all operations in compliance with 29 CFR and 10 CFR Part 20.

**Comment 2a: 10 CSR 20-7.031 (5) (D), 10 CSR 20-7.031(4)(I), 10 CSR 20-7.031(5) Table A**

The reason given for rejection of the above regulations was because they were “not a relevant and appropriate state standard within the meaning of 42 USC 9261 and 40 CFR 300.100(g).” It is stated in 42 USC 9261 that to be considered an ARAR, a state regulation has to be promulgated and more stringent than the corresponding federal regulation. In 40 CFR 300.100(g), the definition of promulgated state regulations is “the standards are of general applicability and are legally enforceable.” The above-mentioned Missouri regulations apply generally to all waters of the state and are legally enforceable. Due to these facts the Missouri water quality standards mentioned above are promulgated state regulations under the meaning of 40 CFR 300.100(g). Furthermore, the Clean Water Act gives the states the authority for establishing water quality standards, there are no corresponding federal regulations, and can be considered ARARs if they apply to conditions at the site. (It was assumed that this comment intended to refer to 42 USC 9621 and 40 CFR 300.400(g)).

**Response 2a:**

The regulations in 10 CSR 20-7.031(5)(D) and 10 CSR 20-7.031(5) Table A are not applicable or relevant and appropriate to the North County Site because they apply only to “*aquifers* in which contaminant concentrations exceed column VII criteria or other protective criteria, and existing and potential uses are not impaired.” The aquifer at the site, HZ-E, has not been impacted by contaminant concentrations exceeding those levels and is not affected significantly by contaminants present in the HZ-A ground-water unit. (Please see the response to comment 2b for further clarification.)

**Comment 2b: 10 CSR 20-7.031(5)(B)**

10 CSR 20-7.031(5)(B) states that “appropriate (Table A) Column I or II criteria shall apply to waters in caves and to aquifers which contribute an important part of base flow of surface waters designated for aquatic life protection.” The upper groundwater unit, HZ-A, contributes to the flow of Coldwater Creek, which is designated for aquatic life protection (Table H 10 CSR 20-7). It is known that there are FUSRAP-related contaminants in HZ-A, therefore the standards in the regulation should be followed.

**Response 2b:**

The standards apply to a contaminated aquifer contributing an important part of base flow to Coldwater Creek. However, HZ-A does not meet the definition of “aquifer” as defined in 10 CSR 20-7.031 (1)(B), which states “a subsurface water-bearing bed or stratum which stores or transmits water in recoverable quantities that is currently being used or could be used as a water source for private or public use.” HZ-A fits the Environmental Protection Agency’s (EPA) Class III designation as ground water that is not a source of drinking water and of limited beneficial use, due to its poor quality and low yield. It can not provide sufficient water to meet the long-term basic needs of an average family. The EPA determined the sufficient yield criterion to be a sustainable rate

of 150 gallons per day (gpd) (EPA, 1986). The purge rates for shallow monitoring wells at the site provide an estimated maximum daily yield of 50 gpd for Unit 2 and 5 gpd for Subunit 3T (based on first and second Quarter 1999 field data). In addition, the low measured hydraulic conductivities (on the order of  $10^{-6}$  to  $10^{-8}$  cm/s) confirm that HZ-A does not produce water in sufficient quantities to fit the definition of aquifer. Thus, HZ-A is not an "aquifer that contributes an important part of base flow of surface waters designated for aquatic life protection." Due to the low ground-water flow rates in HZ-A at St. Louis Airport Site (SLAPS) and Hazelwood Interim Storage Site (HISS)/Futura, discharge of ground water to Coldwater Creek does not result in contaminant levels above water quality standards in surface water.

**Comment 2c: 10 CSR 20-7.031(4)(I)**

10 CSR 20-7.031(4)(I) states that "all streams and lakes shall conform with state and federal limits for radionuclides established for drinking water supply." It is known that there are radioactive elements in Coldwater Creek, and therefore the drinking water standards mentioned in 10 CSR 20-7.031(4)(I) should apply to the North County Site.

**Response 2c:**

As stated in 10 CSR 20-7.031 (4), the specific criteria "shall apply to classified waters. Protection of drinking water supply is limited to surface waters designated for raw drinking water supply and aquifers." Therefore, only those classified surface waters designated for drinking water supply must comply with the specific criteria for radionuclides given in 10 CSR 20-7.031 (4) (I). The upstream portion of Coldwater Creek between the airport and Highway 67, which includes the SLAPS/HISS reach, is an unclassified water of the state. In addition, the limits for radionuclides established for drinking water supplies would not apply to Coldwater Creek because it has not been designated for use as a drinking water supply. (The beneficial uses designated for the classified portion of Coldwater Creek downstream of Highway 67 are livestock and wildlife watering, protection of warm water aquatic life and human health-fish consumption, and industrial.)

**Comment 3: 10 CSR 23 Sections 4.050, 1.010-1.060, 1.090, 1.105, 1.140, 1.155, 1.160, 3.020-3.080, and 3.110**

The above Missouri regulations should not be completely disregarded. They should be listed as action-specific ARARs since they detail how a particular action should be performed. Again, these standards are promulgated state regulations within the meaning of 42 USC 9621 and 40 CFR 300.400(g). Specifically, they are generally applicable to all wells in the state and are legally enforceable.

**Response 3:**

We concur that 10 CSR 23 Chapter 4, with the exception of Section 4.020, is applicable as an action-specific ARAR for monitoring wells. The operations at the North County site will adhere to the substantive requirements of these regulations. The only

wells to be installed are on-site monitoring wells. 10 CSR 23 Sections 1010 - 1.060, 1.090, 1.105, 1.140, 1.155, and 1.160 set forth the requirements and process of application for well permits. On-site CERCLA activities are exempted from permit requirements. It is not appropriate to include the general well construction standards in 10 CSR 23 3.020 – 3.080 as ARARs because more specific monitoring well construction requirements are provided in Chapter 4.

Thank you for your response with regard to this issue. We look forward to working with MDNR as we implement ARARs and other requirements within the St. Louis North County Site.

Sincerely,

A handwritten signature in black ink, appearing to read "Sharon R. Cotner", written in a cursive style.

Sharon R. Cotner  
FUSRAP Program Manager

Enclosure

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Bob Holden, Governor • Stephen M. Mahfood, Director

DIVISION OF ENVIRONMENTAL QUALITY  
P.O. Box 176 Jefferson City, MO 65102-0176

May 9, 2001

Ms. Sharon Cotner  
FUSRAP Program Manager  
United States Army Corps of Engineers  
8945 Latty Avenue  
Berkeley, MO 63134

Re: Response to the Missouri Department of Natural Resources Proposed List  
of ARARs in the North County Feasibility Study and Proposed Plan

Dear Ms. Cotner:

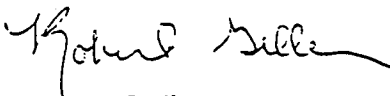
The Federal Facilities Section has finished reviewing the USACE's response to our proposed Applicable or Relevant and Appropriate Requirements (ARARs). While we agree with most of the responses given, there are a few regulations we would still like to be considered as ARARs. The general reason given for not accepting many of the proposed ARARs is that they are "not a cleanup standard, requirement, criteria, or limitation within the meaning of 40 USC 9621 OR 40 CFR 300.400(g)." We disagree with this interpretation of the regulations as they apply to some of the proposed ARARs (see attached pages).

The section would like you to review our response and either provide a more detailed reason why these should not be ARARs for the North County Site or make the proper corrections.

Thank you for your time and response. We hope that this issue can finally be resolved.

Sincerely,

HAZARDOUS WASTE PROGRAM



Robert Geller  
Federal Facilities Section Chief

c: Daniel Wall, EPA  
Dennis Chambers, USACE

**19 CSR 20 Sections 10.040, 10.050, 10.070, 10.090**

These regulations may not detail direct cleanup standards, regulations, criteria, or limitations, but they should be used to ensure that safe levels of radiation from the site are maintained. Thereby protecting the public.

**10 CSR 20-7.031(5)(D), 10 CSR 20-7.031(4)(I), 10 CSR 20-7.031(5), Table A**

The reason given for rejection of the above regulations was because they were "not a relevant and appropriate state standard within the meaning of 42 USC 9261 or 40 CFR 300.100(g)." It is stated in 42 USC 9261 that to be considered an ARAR, a state regulation has to be promulgated and more stringent than the corresponding federal regulation. In 40 CFR 300.100(g), the definition of promulgated state regulations is "the standards are of general applicability and are legally enforceable." The above-mentioned Missouri regulations apply generally to all waters of the state and are legally enforceable. Due to these facts the Missouri water quality standards mentioned above are promulgated state regulations under the meaning of 40 CFR 300 100(g). Furthermore, the Clean Water Act gives the states the authority for establishing water quality standards, there are no corresponding federal regulations, and can be considered ARARs if they apply to conditions at the site.

**10 CSR 20-7.031(5)(B)** states that "...appropriate Column I or II criteria shall apply to waters in caves and to aquifers which contribute an important part of base flow of surface waters designated for aquatic life protection." The upper groundwater unit, HZA, contributes to the flow of Coldwater Creek, which is designated for aquatic life protection (Table H 10 CSR 20-7). It is known that there are FUSRAP-related contaminants in HZ-A, therefore, the standards in this regulation should be followed.

**10 CSR 20-7.031(4)(I)** states that "all streams and lakes shall conform with state and federal limits for radionuclides established for drinking water supply." It is known that there are radioactive elements in Coldwater Creek, and therefore the drinking water standards mentioned in 10 CSR 20-7.031(4)(I) should apply to the North County Site.

10 CSR 23 Sections 4.050, 1.010-1.060, 1.090, 1.105, 1.140, 1.155, 1.160,  
3020-3080, and 3.110

The above Missouri regulations should not be completely disregarded. They should be listed as action-specific ARARs since they detail how a particular action should be performed. Again, these standards are promulgated state regulations within the meaning of 42 USC 9261 and 40 CFR 300.100(g). Specifically, they are generally applicable to all wells in the state and are legally enforceable.

# FUSRAP Document Management System

<b>Year</b>	<b>ID</b>	<b>Further Info?</b>	
00	2694	<input type="checkbox"/>	
<b>Operating Unit</b>	<b>Site</b>	<b>Area</b>	<b>MARKS Number</b>
North County			FN:1110-1-8100g
<b>Primary Document Type</b>	<b>Secondary Document Type</b>		
Feasibility Study	ARARS		
<b>Subject or Title</b>			
Response to MDNR Proposed List of Applicable or Relevant and Appropriate Requirements (ARARs)			
<b>Author/Originator</b>	<b>Company</b>	<b>Date</b>	
Sharon Cotner	CEMVS-PM-R	8/2/2001	
<b>Recipient (s)</b>	<b>Company (-ies)</b>	<b>Version</b>	
Robert Geller	MDNR	Final	
<b>Original's Location</b>	<b>Document Format</b>	<b>Confidential File?</b>	
Central Files	Paper	<input type="checkbox"/>	
<b>Comments</b>	<b>Include in which AR(s)?</b>	<b>ETL</b>	
	<input checked="" type="checkbox"/> North County	4.7	
<b>SAIC number</b>	<input type="checkbox"/> Madison	<b>Filed in Volume</b>	
	<input type="checkbox"/> Downtown	4	
<b>Bechtel ID</b>	<input type="checkbox"/> Iowa		
	