



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

REPLY TO  
ATTENTION OF:

August 31, 2004

Formerly Utilized Sites Remedial Action Program

SUBJECT: Revised Response to Missouri Department of Natural Resources Proposed Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered (TBCs) for the North St. Louis County Sites Record of Decision

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

Dear Mr. Geller:

This letter provides revised responses to the proposed ARARs and TBCs provided by your office in a letter dated September 17, 1998. The U.S. Army Corps of Engineers (USACE) provided an initial evaluation of the proposed in a table attachment to a letter dated December 7, 2000. The initial response was prepared after meeting with you and members of your staff and Mr. Dan Wall from the U.S. Environmental Protection Agency (USEPA) on September 13, 2000.

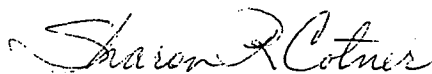
Since the time of our initial evaluation, USACE has conducted extensive work with the support of your office and the EPA in identifying and evaluating alternatives to address the wastes resulting from Manhattan Engineer District/Atomic Energy Commission (MED/AEC) related activities at the North St. Louis County Sites. This effort resulted in the release of the *Feasibility Study for the St. Louis North County Site* and the *Proposed Plan for the St. Louis North County Site* in May 2003 and will eventually result in the publication of a Record of Decision (ROD) selecting a final remedy for the St. Louis North County Sites.

During the development of the feasibility study and proposed plan and the current drafting of the proposed ROD, USACE has reconsidered our original ARAR and TBC determinations. Enclosed, please find a revised table documenting USACE responses to proposed ARARs and TBCs. The ARAR and TBC determinations documented in the enclosed table are consistent with the determinations identified in the proposed ROD. In accordance with the requirements of CFRCLA §121(d), 42 U.S.C. §9621(d), USACE has identified cleanup requirements setting forth promulgated standards, requirements, criteria, or limitations that are legally applicable to the North St. Louis County Sites Contaminants of Concern (COCs) or are relevant and appropriate under the circumstances of the release or threatened release of such COCs. To the extent other laws

not identified as North St. Louis County Sites ARARs establish legal requirements related to the remedial action and are not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action work plans to ensure compliance by USACE and its contractors during implementation of the response. Since MDNR participates in the review of primary documents, it will have the opportunity to assure requirements not selected as ARAR are incorporated into work plans.

Thank you for your support during the development and evaluation of alternatives and the selection of a final remedy to address MED/AEC contamination at the North St. Louis County Sites. We look forward to working with you as we implement the ARARs and other requirements during the remedial design and remedial action phases of the North St. Louis County Sites response action.

Sincerely,

A handwritten signature in cursive script, reading "Sharon R. Cotner".

Sharon R. Cotner  
FUSRAP Program Manager

Enclosure

CC (w/ encl): Mr. Dan Wall, U.S. Environmental Protection Agency

U.S. Army Corps of Engineers, St. Louis District  
Response to the State of Missouri, Department of Natural Resources  
Proposed ARARs for the North County Record of Decision

CITATION	TITLE	RESPONSE
USEPA OSWER No. 9200.4-18 "EPA policy on using 40 CFR Part 192 for CERCLA cleanup criteria at radioactive sites, including radium and thorium."	EPA policy directives for CERCLA Sites with Radioactive Contamination	No. EPA guidance documents are not promulgated regulations within the meaning of 42 U.S.C. §9621 (CERCLA Section 121) or 40 CFR §300.400(g). OSWER No. 9200.4-18 was one of several guidance documents evaluated while developing ARARs for the North County Site, but is not itself an ARAR. USEPA OSWER No. 9200.4-18 presents clarifying guidance for establishing protective cleanup levels for radioactive contamination at CERCLA sites.
USEPA OSWER No. 9200.4-23 "EPA policy for ARAR determination for radioactive sites."	EPA policy directives for CERCLA Sites with Radioactive Contamination	No. EPA guidance documents are not promulgated regulations within the meaning of 42 U.S.C. §9621 (CERCLA Section 121) or 40 CFR §300.400(g). OSWER No. 9200.4-23 was one of several guidance documents evaluated while developing ARARs for the North County Site, but is not itself an ARAR. "Specifically, this memorandum clarifies that, in rare instances, the Agency may establish preliminary remediation goals (PRGs) at levels more protective than required by ARARs, even at sites that do not involve multiple contaminants or pathways of exposure."
10 CSR 20-7.031(5)(D)	Missouri Effluent Regulations, Groundwater (1996)	No. Not a relevant and appropriate state standard within the meaning of 42 U.S.C. §9261 (CERCLA Section 121) or 40 CFR §300.400(g). The "A" unit is not a drinking water source and does not communicate with ground water unit E (the only drinking water unit). At present there are no FUSRAP-related contaminants in the aquifer of concern (HZ-E) that exceed concentrations as listed in Table A Column VII.

CITATION	TITLE	RESPONSE
16 U.S.C. §470 40 CFR §6.301(b) 36 CFR Part 800	National Historic Preservation Act	No. The National Historic Preservation Act is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. No historic sites have been identified so as to require NHPA as a location-specific ARAR.
Sections 253.408 to 253.412 of the Revised Statutes of Missouri (RSMo).	State Historic Preservation Act	No. The State Historic Preservation Act is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. No historic sites have been identified so as to require MoHPA as a location-specific ARAR.
16 U.S.C. §469 40 CFR §6.301(c)	Archeological and Historical Preservation Act	No. The Archeological and Historic Preservation Act is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. No Historical archeological data has been identified so as to require AHPA as a location specific ARAR.
16 U.S.C. §470(a)	Archeological Resources Protection Act	No. The Archeological Resources Protection Act is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. No historic sites have been identified so as to require ARPA as a location-specific ARAR.
25 U.S.C. §§3001-3013	Native American Graves Protection and Repatriation Act	No. The Native American Graves Protection Act is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. No Native American gravesites have been identified nor suspected so as to require NAGPA as a location-specific ARAR.

CITATION	TITLE	RESPONSE
Executive Order No. 11988	Floodplain Management and Protection	No. Federal Executive Orders are not promulgated regulations within the meaning of 42 U.S.C. §9621 (CERCLA Section 121) or 40 CFR §300.400(g).
40 CFR §6.302(a) and (b), Appendix A	Floodplain Management and Protection	No. 40 CFR §6.302(a) and (b), Appendix A, are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). These regulations state the federal government's policies of 1) conducting activities to avoid, to the extent possible, the adverse impacts associated with the destruction or loss of wetlands and to avoid support of new construction in wetlands if a practical alternative exists and 2) to evaluate the effects actions may take to a flood plain to avoid to the extent possible adverse effects associated with direct and indirect development of a flood plain. To the extent any response actions are conducted in wetlands and floodplains, these federal policies will be considered during the remedial design of the remedial action.
40 CFR Part 230 and 231 33 CFR Parts 320-330	Dredge or Fill Requirements (Section 404)	No. 40 CFR Parts 230 and 231 and 33 CFR Parts 320-330 are not ARARs for the North St. Louis County Site because they do not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. The regulations at 40 CFR Part 230 identify the Clean Water Act (CWA) 404(b)(1) guidelines. The regulations at 40 CFR Part 231 identify the procedures to be followed by EPA when it invokes its CWA 404(c) power to veto a CWA 404 permit issued. The regulations at 33 CFR Parts 320 – 330 set forth USACE's general regulatory policies for implementing the CWA 404 and the Rivers and Harbors Act Section 10 permit programs. USACE Regulatory Branch, responsible for implementing the CWA 404 program, participated in the development of the selected remedy and will be consulted during the development of remedial action work plans to ensure that response actions are consistent with the CWA 404 requirements.

CITATION	TITLE	RESPONSE
COE Engineering Regulation (ER) 1165-2-26, March 30, 1984	COE Implementation of Executive Order 11988 on Flood Plain Management	No. COE regulations are not promulgated regulations within the meaning of 42 U.S.C. §9621 (CERCLA Section 121) or 40 CFR §300.400(g).
Executive Order No. 82-19	Governor's Executive Order, Flood Plains	No. State Executive Orders are not promulgated standards within the meaning of 42 U.S.C. §9621 or 40CFR §300.400(g)(4).
40 CFR Part 61 Subpart I	Clean Air Act – National Emission Standards for Radionuclide Emissions from Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities Not Covered by Subpart H.	No. National Emission Standards for Radionuclide Emissions from certain federal facilities is not an ARAR for the St. Louis North County Site. 40 CFR Part 61, Subpart I, does not set forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Although the open air excavations that will be conducted during the remedial action are not facilities subject to the National Emission Standards for Radionuclide Emissions, air monitoring requirements will be described in work plans and air monitoring will be conducted throughout the remedial action.
40 CFR Part 61 Subpart Q	Clean Air Act – National Emission Standards for Radon Emissions from Department of Energy Facilities	No. National Emission Standards for Radon Emissions from DOE facilities are not considered ARAR for the St. Louis North County Site. 40 CFR Part 61, Subpart Q, does not set forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Radon emissions will be controlled in accordance with 40 CFR §192.12 (b), which has been accepted as ARAR.

CITATION	TITLE	RESPONSE
USEPA, Office of Groundwater Protection, December 1986	Guidelines for Groundwater Classification under the EPA Groundwater Protection Strategy	No. EPA guidance documents are not promulgated standards within the meaning of 42 U.S.C. §9621 (CERCLA Section 121) or 40 CFR §300.400(g)(4). This guidance is used to classify the ground water for the water-bearing units of concern. This classification is documented in the FS and provides justification for decisions made for the ground-water portion of the North County Site.
33 CFR Part 230	Procedures for Implementing NEPA: Environmental Assessments and Categorical Exclusions	No. CERCLA considers and is fully compliant with NEPA. NEPA is a procedural statute with no substantive standards and. CERCLA provides substantially the same public comment opportunities while promoting a policy of prompt cleanup of contamination.
40 CFR Part 262, as incorporated by reference in 10 CSR 25-5-262	RCRA Generator Requirements	No. 40 CFR Part 262 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Investigation sample results and historical information concerning uranium processing activities supports the reasonable determination that no COCs will exhibit a characteristic or be considered a listed waste such that they are subject to RCRA regulation.

CITATION	TITLE	RESPONSE
40 CFR Parts 260 and 261, as incorporated by reference in 10 CSR 25-4.261	RCRA Hazardous Waste Characterization	No. 40 CFR Parts 260 and 261 are not ARARs for the North St. Louis County Site because they do not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 40 CFR Parts 260 and 261 identify the requirements for determining whether a material is regulated as a hazardous waste. Investigation sample results and historical information concerning uranium processing activities supports the reasonable determination that no COCs will exhibit a characteristic or be considered a listed waste such that they are subject to RCRA regulation. To the extent these regulations establish legal requirements related to the remedial action and are not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action work plans to ensure compliance by USACE and its contractors during implementation.
40 CFR Parts 268.7 and 268.32, as incorporated by reference in 10 CSR 25.7.263	RCRA Land Disposal Restrictions	No. 40 CFR §§268.7 and 268.32 are not ARARs for the North St. Louis County Site because they do not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 40 CFR §268.7 identifies testing, tracking, and record keeping requirements for generators, treators, and disposal facilities. 40 CFR §268.32 generally prohibits land disposal of any soil exhibiting the toxicity characteristic solely because of the presence of metals and containing PCBs. Investigation sample results and historical information concerning uranium-processing activities supports the reasonable determination that no COCs will exhibit a characteristic or be considered a listed waste such that they are subject to RCRA regulation. To the extent these regulations establish legal requirements related to the remedial action and are not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action workplans to ensure compliance by USACE and its contractors during implementation.



CITATION	TITLE	RESPONSE
10 CFR Part 40 Appendix A	Criteria for Disposal of Wastes from Processing Source Material	Yes. 10 CFR 40, Appendix A, Criterion 6(6) is relevant and appropriate for derivation of remediation goals for tailings nuclides other than Ra-226 for soil, sediment and structures.
10 CFR Part 61 Subpart C and Subpart D	NRC Licensing Requirements for Land Disposal of Radioactive Waste: Performance Objectives (Subpart C) and Technical Requirements for Land Disposal Facilities (Subpart D).	No. 10 CFR Part 61 Subparts C and D apply to NRC regulated radioactive waste disposal and are not appropriate for the St Louis North County Site.
10 CSR 10-5.090	Restriction of Emission of Visible Air Contaminants	No. 10 CSR 10.5.090 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). 10 CSR 10.5.090 was rescinded May 30, 2000.
10 CSR 10-6.170	Restriction of Particulate Matter to the Ambient Air Beyond the Premise of Origin	No. 10 CSR 10-6.170 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). 10 CSR 10-6.170 state the requirement to take reasonable measure to prevent fugitive particulate matter emissions to o beyond the property line of origin. To the extent this regulation establishes legal requirements related to the remedial action and is not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action workplans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
10 CSR 20-7.031(4)(I) 10 CSR 20-7.031(5) and Table A	Missouri Water Quality Standards	No. Not a relevant and appropriate state requirement within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). There are no FUSRAP-related contaminants in the aquifer of concern (HZ-E) that exceed concentrations as listed in Table A Column VII.
10 CSR 20-6.200	Storm Water Regulations: Surface Runoff and Erosion Control	No. 10 CSR 20-6.200 is not an ARAR for the St. Louis North County Site because it does not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 10 CSR 20-6.200 sets forth the requirements and process of applications for permits for storm water discharges and the terms and conditions for permits.
10 CSR 25-4.261	Methods for Identifying Hazardous Waste	No. 10 CSR 25-4.261 is not an ARAR because it does not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 10 CSR 25-4.261 sets forth characteristics and lists by which a generator can determine whether his/her waste is hazardous. To the extent this regulations establishes legal requirements related to waste encountered during the remedial action and is not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action workplans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
10 CSR 25-5.262	Standards Applicable to Generators of Hazardous Wastes	No. 10 CSR 25-5.262 is not an ARAR because it does not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 10 CSR 25-5.262 sets forth characteristics and lists by which a generator can determine whether his/her waste is hazardous. Investigation sample results and historical information concerning uranium processing activities supports the reasonable determination that no COCs will exhibit a characteristic or be considered a listed waste such that they are subject to RCRA regulation. To the extent this regulation establishes legal requirements related to waste encountered during the remedial action and is not inconsistent with the provisions of CERCLA § 121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action workplans to ensure compliance by USACE and its contractors during implementation.
10 CSR 25-7.268	Land Disposal Restrictions	No. 10 CSR 25-7.268 is not an ARAR because it does not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 10 CSR 25-7.268 incorporates and modifies the land disposal restrictions set forth in 40 CFR Part 268. Investigation sample results and historical information concerning uranium processing activities supports the reasonable determination that no COCs will exhibit a characteristic or be considered a listed waste such that they are subject to RCRA regulation. To the extent this regulation establishes legal requirements related to waste encountered during the remedial action and is not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action workplans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
10 CSR 80-3.010(3)	State Sanitary Landfill Design and Operation: Disposal of Low-Level Radioactive Material in Missouri	No. State Sanitary Landfill Design and Operation regulations do not set forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). Sanitary landfill design and operation are not anticipated actions.
10 CSR 80-3.010(4)	State Sanitary Landfill Design and Operation: Sanitary Landfill Siting Requirements	No. State Sanitary Landfill Design and Operation regulations do not set forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). Sanitary landfill design and operation are not anticipated actions.
10 CSR 80-3.010(17)	State Sanitary Landfill Design and Operation: Sanitary Landfill Cover Requirements	No. State Sanitary Landfill Design and Operation regulations do not set forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). Sanitary landfill design and operation are not anticipated actions.
29 CFR Part 1910	OSHA – General Industry Standards	No. OSHA and implementing regulations are not Federal environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.
29 CFR Part 1926	OSHA – Safety and Health Standards	No. OSHA and implementing regulations are not Federal environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
29 CFR Part 1904	OSHA – Recordkeeping, Reporting, and Related Regulations	No. OSHA and implementing regulations are not Federal environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.
49 CFR Part 171	Hazardous Material Transportation Regulation (HMTR)	No. HMTR is not a Federal environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621.
49 CFR Part 172	HMTR	No. HMTR is not a Federal environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621.
COE Engineer Regulation (ER) 385-1-80, May 30, 1997.	COE Ionizing Radiation Protection	No. COE Engineer Regulations are not promulgated regulations within the meaning of 42 U.S.C. §9621 (CERCLA Section 121) or 40 CFR §300.400(g).
COE Engineer Regulation (ER) 385-1-92, March 18, 1994	COE Safety and Occupational Health Document Requirements for Hazardous, Toxic, and Radioactive Waste (HTRW) and Ordinance and Explosive Waste (OEW) Activities	No. COE Safety and Occupational Health Regulations are not promulgated regulations within the meaning of 42 U.S.C. §9621 (CERCLA Section 121) or 40 CFR §300.400(g). Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
19 CSR 20-10.040	Maximum Permissible Exposure Limits for Radiation	<p>No. 19 CSR 20-10.040 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 19 CSR 20-10.040 establishes the maximum permissible exposure limits and identifies the maximum permissible doses for external and internal exposure for persons within or outside controlled areas. The regulation is a worker safety regulation. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.</p> <p>40 CFR §192.12(b)(1) has been accepted as ARAR for the control of Radon-222 exposure.</p>
29 CFR §1910 and 29 CFR §1910.1000 Subpart Z, Toxic and Hazardous Substances	Occupational Safety and Health Administration Standards	No. OSHA and implementing regulations are not Federal environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.
10 CFR §835	Occupational Radiation Protection	No. 10 CFR §835 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 10 CFR §835 pertains to DOE operations.
19 CSR 20-10.050	Missouri Radiation Regulations; Protection Against Ionizing Radiation Personnel Monitoring and Radiation Surveys	No. 19 CSR 20-10.050 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. The regulation is a worker safety regulation. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
29 CFR §1910 and 29 CFR §1910.96 Subpart G, Ionizing Radiation	Occupational Safety and Health Administration Standards Occupational Health and Environmental Control	No. OSHA and implementing regulations are not Federal environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation. (NOTE: 29 CFR §1910.96 has been "redesignated")
19 CSR 20-10.090	Missouri Radiation Regulations; Protection Against Ionizing Radiation Disposal of Radioactive Wastes	No. 19 CSR 20-10.090 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 19 CSR 20-10.090 lists conditions under which radioactive material may be released into the air or water or may be disposed by burial in soil or discharged in a sanitary sewer. To the extent this regulation establishes legal requirements related to the remedial action and is not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action work plans to ensure compliance by USACE and its contractors during implementation.
19 CSR 20-10.070	Missouri Radiation Regulations; Protection Against Ionizing Radiation, Storage of Radioactive Materials	No. 19 CSR 20-10.070 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. 19 CSR 20-10.070 lists requirements for safe storage of radioactive materials. To the extent this regulation establishes legal requirements related to the remedial action and is not inconsistent with the provisions of CERCLA §121(e), 42 U.S.C. §9621(e), the requirements will be described in the remedial action workplans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
19 CSR 20-10.080	Missouri Radiation Regulations; Protection Against Ionizing Radiation, Control of Radioactive Contamination	No. 19 CSR 20-10.080 is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. The regulation is a worker safety regulation. Worker safety requirements will be identified in site safety plans to ensure compliance by USACE and its contractors during implementation.
10 CSR 10-5.180, Emission of Visible Air Contaminants from Internal Combustion Engines	Missouri Air Pollution Control Regulations; Air Quality Standards and Air Pollution Control Regulations for the St. Louis Metropolitan Area	No. 10 CSR 10-5.180 is not an ARAR because it does not identify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. NOTE: 10 CSR 10-5.180 was rescinded November 20, 2002).
10 CSR 20-6.010	Missouri Construction and Operating Permit Regulations	No. state construction permit requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-4.050	Missouri General Protection of Groundwater Quality and Resources	No. 10 CSR 23-4.050 is not an ARAR for the North St. Louis County Site because it does not specify a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). 10 CSR 23-4.050 prevents the use of monitoring wells for any other purpose.
10 CSR 20-6.010(13)	Missouri Stormwater Discharge Regulations	No. 10 CSR 20-6.010(13) is not an ARAR because state permit requirements are not environmental laws setting forth a cleanup standard, requirements, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).



CITATION	TITLE	RESPONSE
40 CFR Part 192	Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings Subpart D, Standards for Management of Uranium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as amended; Subpart E, Standards for Management of Thorium Byproduct Materials Pursuant to Section 84 of the Atomic Energy Act of 1954, as amended.	<p>Yes. 40 CFR Part 192 Subparts A, B and C are identified as Relevant and Appropriate Chemical Specific ARARs.</p> <p>Specific Provisions considered ARAR for the selected remedy:</p> <p>Subpart A: §192.02;</p> <p>Subpart B: §192.12 (a) and (b)</p> <p>Subpart C: §192.20 (a) (1); §192.20 (a) (3); §192.20 (b) (1); §192.20 (b) (2); §192.20 (b) (3), §192.21 (a-f, h); §192.22 (a-c)</p>
40 CFR Part 141; 56 FR 33050 July 18, 1991	Safe Drinking Water Act, Proposed National Primary Drinking Water Regulations	<p>No. Ground-water response actions are not required to address FUSRAP contaminants of concern (COCs) at the St. Louis North County Site. The HZ-E unit is the only actual or potential source of drinking water. There is no vertical mixing of ground water between the HZ-A contaminated zone and the HZ-E protected aquifer. There are no FUSRAP related contaminants in the aquifer of concern (HZ-E).</p>

CITATION	TITLE	RESPONSE
40 CFR §192.02	Groundwater Standards for Remedial Actions at Inactive Uranium Processing Sites	<p>Yes, in part. 40 CFR §192.02 (a) and (b) require a cover design that will “be effective for up to 1000 years, to the extent reasonably achievable, and, in any case, for at least 200 years...” and “provide reasonable assurance that release of Ra-222 from residual radioactive material to the atmosphere will not exceed an average release rate of 20 picocuries per square meter per second (pCi/m<sup>2</sup>/sec) nor increase the annual average concentration of Ra-222 in the air at or above any location outside the disposal site by more than 0.5 picocuries per liter (pCi/L).” The 1000-year time limit is relevant and appropriate for the development of soil RGs. The rate of 20 picocuries per square meter per second (pCi/m<sup>2</sup>/s) limit is relevant and appropriate for containment alternatives.</p> <p>192.02(c) is not considered ARAR because it identifies standards for ground-water protection and no ground-water response actions are required to address FUSRAP contaminants of concern (COCs) at the St. Louis North County Site. There are no FUSRAP related COCs in HZ-E ground water, the protected water resource, and the HZ-A ground water has no defined COCs because a complete pathway to receptors does not exist and the definition of COC is not satisfied.</p>
40 CFR §§121.11 and 141.62 10 CSR 60-4.030	Safe Drinking Water Act; National Primary Drinking Water Regulations; Maximum Contaminant Levels; Missouri Drinking Water Regulations; Maximum Inorganic Chemical Contaminant Levels	<p>No. Ground-water response actions are not required to address FUSRAP contaminants of concern (COCs) at the St. Louis North County Site. The HZ-E unit is the only actual or potential source of drinking water. There is no vertical mixing of ground water between the HZ-A contaminated zone and the HZ-E protected aquifer. There are no FUSRAP related contaminants in the aquifer of concern (HZ-E).</p>

CITATION	TITLE	RESPONSE
16 U.S.C. §469; PL 93-291; 88 Stat. 174	Archeological and Historic Preservation Act	No. The Archeological and Historical Preservation Act is not an environmental law setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). No archeological data has been identified so as to require AHPA as a location specific ARAR.
10 CSR 23-1.010 through 1.060	Definitions Application to All Wells Type of Wells Qualifications Application for a Permit	No. The state permit requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-1.090	Permit Requirement Well Registration	No. The state permit requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-1.105	Permit Renewal	No. The state permit requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-1.140	Placement of Registration Number	No. The state permit requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-1.155	Well Drilling and Pump Installation Machine Registration	No. The state requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).

CITATION	TITLE	RESPONSE
10 CSR 23-1.160	Mail and Notification Procedures	No. The state mail and notification procedures are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-3.020 through 3.080	General Protection of Groundwater Quality and Resources Standards for Construction of Wells Well Casing Seals and Connections Pump Installation Certification and Registration Reports Plastic Well Casing Liners	No. The state requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-3.110	Plugging of Wells	No. The state requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 23-4.010-4.08	Monitoring Well Construction Code	No. The state requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g). 10 CSR 23, Chapter 4 specifies requirements related to the construction of monitoring wells. To the extent these regulations establish legal requirements related to the remedial action and are not inconsistent with provisions of CERCLA §121(e), 40 U.S.C. §9621(e), the requirements will be described in the remedial action workplans to ensure compliance by USACE and its contractors during implementation.

CITATION	TITLE	RESPONSE
10 CSR 25-6.263	Standards for Transporters of Hazardous Waste	No. The state requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 30-2.030	General Land Surveying Requirements	No. The state requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
RSMo 327	Missouri Law Regulating the Practice of Architecture, Professional Engineering and Land Surveying	No. The state laws regulating the practice of architecture, professional engineering and land surveying are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).
10 CSR 80-2.010	Definitions Solid Waste Management	No. The state requirements are not environmental laws setting forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621 or 40 CFR §300.400(g).

CITATION	TITLE	RESPONSE
40 CFR Parts 122-125	Clean Water Act – National Pollutant Discharge Elimination System (NPDES)	<p>Yes. 40 CFR Part 122, Subpart C is applicable to off site releases. These regulations establish limits for discharge of pollutants into the waters of the state. Any water discharged from a point source into waters of the state must meet limits that would have been established in the NPDES permit. USACE and the State have identified effluent limitations in a NPDES permit at HISS and a permit equivalent at SLAPS. These limitations are considered relevant and appropriate for response actions at the North St. Louis County Sites.</p> <p>Specific requirements considered ARAR: The following effluent limits for North St. Louis County COCs are identified as relevant and appropriate: 100ug/L total recoverable arsenic, 94 ug/L total recoverable cadmium, and 280 ug/L total recoverable chromium (both daily maximum and monthly average concentrations).</p>
Subpart M of 40 CFR Part 61	Procedures for asbestos emissions control	No. 40 CFR Part 61, Subpart M, establishing national emission standards for asbestos is not an ARAR for the St. Louis North County Site because it does not set forth a cleanup standard, requirement, criteria, or limitation within the meaning of 42 U.S.C. §9621. Asbestos is not a COC for the St. Louis North County Site.
10 CFR §20.1403(e)(1)	Criteria for release under restricted conditions	No. Requirements of 10 CFR Part 20, Subpart E providing radiological criteria for license termination are not ARAR because they specifically do not apply to uranium mill tailings. Portions of 40 CFR Part 192 identifying standards for control of residual radioactive material from inactive uranium processing sites are considered ARAR.

CITATION	TITLE	RESPONSE
40 CFR §761.65	TSCA Requirements for storage or disposal of PCBs	No. PCB is not a COC for the St. Louis North County Site and there is no reasonable expectation that regulated levels of PCB will be encountered during the remedial action.
10 CSR 20-7.031(6)	Metropolitan No-Discharge Stream Designation Compliance	No. 10 CSR 20-7.31(6) does not set forth a cleanup standard, requirement, criteria, or limitation within the meaning of 40 U.S.C. §9621. To the extent this regulation establishes legal requirements related to the remedial action and is not inconsistent with provisions of CERCLA §121(e), 40 U.S.C. §9621(e), the requirements will be described in the remedial action work plans to ensure compliance by USACE and its contractors during implementation.

# FUSRAP Document Management System

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## Author/Originator

Sharon Cotner

## Company

FUSRAP

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