



**Department of Energy**  
Richland Operations Office  
P.O. Box 550  
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06-AMRC-0177

MAR 29 2006

Mr. Nicholas Ceto, Program Manager  
Office of Environmental Cleanup  
Hanford Project Office  
U.S. Environmental Protection Agency  
309 Bradley Blvd, Suite 115  
Richland, Washington 99352

Ms. Jane Hedges, Manager  
Nuclear Waste Program  
State of Washington  
Department of Ecology  
3100 Port of Benton Blvd.  
Richland, Washington 99352

**RECEIVED**  
MAR 31 2006

**EDMC**

Addressees:

**REGULATOR APPROVAL OF HANFORD FEDERAL FACILITY AGREEMENT AND  
CONSENT ORDER (HFFACO) TRI-PARTY AGREEMENT (TPA) CHANGE NOTICE TPA-  
CN-151 MODIFICATION TO THE SITE-WIDE INSTITUTIONAL CONTROLS PLAN PER  
221-U RECORD OF DECISION COMMITMENT**

The purpose of this letter is to gain the regulator's approval of a change notice that documents a modification being made to the Sitewide Institutional Controls (IC) Plan in order to implement the requirements of the 221-U Facility Record of Decision (ROD) and to adjust the frequency of future assessments based upon the results of past assessments. The *Record of Decision 221-U Facility (Canyon Disposition Initiative) Hanford Site, Washington*, was approved by the U.S. Environmental Protection Agency (EPA) on September 30, 2005. The 221-U Facility ROD requires in Section 2.12.2.3 that the *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions*, DOE/RL-2001-41, be updated within 180 days (March 29, 2006) with the institutional controls contained in the ROD. The regulators are requested to approve the attached change notice that is being processed in accordance with the requirements of the Hanford Federal Facility Agreement and Consent Order (HFFACO) section 9.3, DOCUMENT REVISIONS, and is considered a minor change. Per discussion with Craig E. Cameron, EPA, this change notice will undergo a 45-day regulatory agency review and response period. This TPA change notice update will keep the Sitewide IC Plan current with the latest institutional controls proposed in the 221-U Facility ROD. The plan specifies how the institutional controls are implemented and maintained. No impacts are anticipated as a result of this modification to the Sitewide IC Plan.

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If you have any further questions, please contact me or your staff may contact David T. Evans, Acting Assistant Manager for the River Corridor, at (509) 373-9278.

Sincerely,

  
for Keith A. Klein  
Manager

AMRC:JPS

Attachment

cc w/attach:

G. Bohnee, NPT  
R. Bond, Ecology  
C. Cameron, EPA  
L. Fritz, FHI  
S. Harris, CTUIR  
J. Hyatt, FHI  
R. Jim, YN  
T. Martin, HAB  
K. Niles, ODOE  
R. Piippo, FHI  
J. Price, Ecology  
F. Ruck, FHI  
E. Yancey, FHI

Administrative Record H6-08, Institutional Controls Plan  
Environmental Portal, LMSI

**Tri-Party Agreement Change Notice TPA-CN-151**

The following Tables are hereby added to the Sitewide Institutional Controls Plan:

Table A.5.1 221-U Facility ROD Institutional Control Requirements (Required During Cleanup Activities) and Table A.5.2 221-U Facility ROD Institutional Control Requirements (Required After Cleanup is Complete)

Tables A.5.1 and A.5.2 to be added, are as follows:

**Table A.5.1. 221-U Facility ROD Institutional Control Requirements  
(Required During Cleanup Activities)**

<b>221-U Facility ROD Institutional Control Requirements</b>	<b>How Requirement Is Met (Reference to the Sitewide Institutional Controls Plan Sections)</b>
DOE shall control access to prevent unacceptable exposure of humans to contaminants at the 221-U Facility site addressed in the scope of this ROD until remedy construction is complete. Visitors entering any site areas are required to be badged and escorted at all times. See Figure 7 of the 221-U Facility ROD for a site map showing the extent of the 221-U Facility site and the boundaries of the land use controls. A more detailed map will be developed and included in the RD/RA workplan to be approved by EPA and Ecology.	Section 2.2.2
No intrusive work shall be allowed at the 221-U Facility site unless the EPA and Ecology have approved the plan for such work and that plan is followed.	Section 2.2.3
DOE shall prohibit well drilling at the 221-U Facility site except for monitoring, characterization, or remediation wells authorized in EPA and Ecology approved documents.	Section 2.2.4
Groundwater use at the 221-U Facility site is prohibited, except for limited research purposes and monitoring and treatment authorized in EPA and Ecology approved documents. This prohibition applies until drinking water standards are achieved and EPA and Ecology authorize removal of restrictions. Decision documents for the 200-UW-1 source operable unit and 200-UP-1 groundwater operable unit as well as the Site-wide Institutional Controls Plan will contain the institutional controls and implementing details prohibiting well drilling and	Section 2.2.4

<b>221-U Facility ROD Institutional Control Requirements</b>	<b>How Requirement Is Met (Reference to the Sitewide Institutional Controls Plan Sections)</b>
groundwater use in the U Plant Area and portions of the 200 West Area as defined in those decision documents.	
DOE shall post and maintain warning signs along access roads which caution site visitors and workers of potential hazards from the 221-U Facility site.	Section 2.2.1
In the event of any unauthorized access to the site, such as trespass, DOE shall report such incidents to the Benton County Sheriff's Office for investigation and evaluation of possible prosecution.	Section 2.2.2

Table A.5.2. 221-U Facility ROD Institutional Control Requirements  
(Required After Cleanup is Complete)

<b>221-U Facility ROD Institutional Control Requirements</b>	<b>How Requirement Is Met (Reference to the Sitewide Institutional Controls Plan Sections)</b>
DOE shall ensure that use of the 221-U Facility site as well as any activities at the site are restricted to industrial use only, consistent with the exposure assumptions used in establishing risk-based cleanup levels for radionuclides and the use of MTCA Method C to calculate industrial cleanup levels for chemicals. A surveillance program shall be maintained to document that risk- and ARAR-based cleanup levels (and the exposure durations upon which they are based) are not exceeded. Furthermore, DOE shall prohibit the development and use of the 221-U Facility site for residential housing, elementary and secondary schools, child care facilities, and playground. These restrictions shall be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure.	Section 2.2.3
Activities that would disrupt or lessen the performance of the engineered surface barrier are to be prohibited. The engineered surface barrier is anticipated to cover the area delineated in Figure 6 of the 221-U Facility ROD. These restrictions shall be maintained until the concentration of hazardous substances in	Section 2.2.3

<b>221-U Facility ROD Institutional Control Requirements</b>	<b>How Requirement Is Met (Reference to the Sitewide Institutional Controls Plan Sections)</b>
the soil and groundwater are at such levels to allow for unrestricted use and exposure.	
DOE shall maintain an effective vegetative soil layer to promote the succession of native plants as a feature of the evapotranspiration surface barrier and prohibit activities that would lessen the effectiveness of the vegetation, barrier, and run on/run off controls. These infiltration control measures shall be maintained unless (or until) DOE can demonstrate that the proposed activity or change in maintenance will result in no negative impact on groundwater or river water quality from any potential release of contamination from the site and EPA and Ecology approve the change.	Section 2.2.6
No irrigation will be permitted for agriculture or landscaping on the 221-U Facility site. This infiltration restriction shall be maintained unless (or until) DOE can demonstrate that the proposed irrigation will have no negative impact on groundwater or river water quality from any potential release of contamination from the site and EPA and Ecology approve the change.	Section 2.2.4
No intrusive work shall be allowed at the 221-U Facility site unless the EPA and Ecology have approved the plan for such work and that plan is followed. This restriction shall be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure.	Section 2.2.3
DOE shall prohibit well drilling at the 221-U Facility site except for monitoring, characterization, or remediation wells authorized in EPA and Ecology approved documents. This restriction shall be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure.	Section 2.2.3
Groundwater use is prohibited at the 221-U Facility site, except for limited research purposes and monitoring and treatment authorized in EPA and/or Ecology approved documents. This prohibition applies until contaminant concentrations in the groundwater are at or below drinking water restrictions and EPA and Ecology authorize removal of restrictions. Decision documents for the 200-UW-1 source operable unit and 200-UP-1 groundwater operable unit as well as the Sitewide Institutional Controls Plan will contain the institutional controls and implementing details prohibiting well drilling and groundwater	Section 2.2.4

<b>221-U Facility ROD Institutional Control Requirements</b>	<b>How Requirement Is Met (Reference to the Sitewide Institutional Controls Plan Sections)</b>
use in the U Plant Area and portions of the 200 West Area as defined in those decision documents.	
DOE shall prohibit activities that would damage the monitoring system and its components (e.g., monitoring wells). This restriction shall be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure.	Section 2.2.3
DOE shall establish and maintain a records system or database that tracks locations and estimated quantities of residual contamination left in place. This restriction shall be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure.	Section 2.2.5
DOE shall report the location of residual contamination in deed notices and other informational devices. In addition, a copy of any material documenting the location and quantity of residual contamination shall be given to any prospective purchaser/transferee before any transfer or lease. Measures that are necessary to ensure the continuation of land use restrictions or other institutional controls (e.g., proprietary controls such as property easements or covenants) shall be taken before any transfer or lease of the property. DOE shall notify EPA and Ecology at least 6 months before any transfer, sale or lease of any property subject to institutional controls required by a CERCLA decision document so that EPA and Ecology can be involved in discussions to ensure that appropriate provisions are included in the conveyance documents to maintain effective institutional controls. If it is not possible for DOE to notify EPA and Ecology at least 6 months before any transfer, sale, or lease, then DOE will notify EPA and Ecology as soon as possible, but no later than 60 days before the transfer, sale, or lease of any property subject to institutional controls. This restriction shall be maintained until the concentration of hazardous substances in the soil and groundwater are at such levels to allow for unrestricted use and exposure.	Section 2.2.3
DOE shall report on the effectiveness of institutional controls for this remedy in an annual report, or on an alternative reporting frequency specified by EPA and Ecology. Such reporting may be for this site alone or may be part of a Hanford site-wide report. This restriction shall be maintained until the concentration of hazardous substances in the soil and	Section 4.2

221-U Facility ROD Institutional Control Requirements	How Requirement Is Met (Reference to the Sitewide Institutional Controls Plan Sections)
groundwater are at such levels to allow for unrestricted use and exposure.	

New Section 2.2.6 “Barriers” is hereby added to the Sitewide Institutional Controls Plan as follows:

**2.2.6 Barriers**

The DOE shall maintain and operate barriers as identified in the decision documents. Examples of barriers include fences and engineered barriers such as a multi-layered cover or an evapotranspiration barrier. The purpose of the barriers is to protect the contaminants left behind from intrusion by humans and/or biota and recharge from precipitation or run- on/run-off. For example, a fence would be used to keep the intruders away. An evapotranspiration barrier could consist of vegetative soil layer that promotes native plants. The DOE shall prohibit activities that would lessen the effectiveness of the barrier.

Section 4.2, last paragraph of the Sitewide Institutional Controls Plan is modified as follows:

Note: ~~Struck out~~ text indicates text to be deleted, **shaded** text indicates text to be added.

Initially the assessments ~~will be~~ **were** conducted on an annual basis. ~~The first report will be issued within 12 months of approval of this Institutional Controls Plan. Recommendations from this first assessment and subsequent assessments will be initiated via the RL Baseline Control Process. Subsequent assessments are planned to be completed by the end of each fiscal year, unless otherwise agreed to by the RL, the EPA, and Ecology. Once the assessment process is well established and the RL has demonstrated the effectiveness of the institutional controls, the frequency of future assessment reports may be modified subject to approval by the EPA and Ecology. Based on the results of the first three assessments and the adequacy of ICs, future assessments will be performed on a five year cycle.~~