

OCT - 5 1989

Mr. Mark Matthews, Acting Project Manager
 Uranium Mill Tailings Project Office
 U. S. Department of Energy
 P. O. Box 5400
 Albuquerque, NM 87115

Dear Mr. Matthews:

We have reviewed Revision C of the Green River Remedial Action Inspection Plan (RAIP) and DOE responses to NRC comments. Rev. C of the RAIP was provided on June 1, 1989; we reviewed this document and were unable to provide our concurrence. Comments were transmitted to you on June 22, 1989. Based on our review of the information and data subsequently provided by DOE on August 15, 1989, we conclude that the procedures in the RAIP are not adequate to assure that acceptable moisture/density testing has been performed. The RAIP procedures do not adequately confirm that contaminated materials have been placed at the proper density/moisture levels, since the RAIP (Rev. C) has provisions only for limited verification testing, compared to Rev. B of the RAIP or to NRC generic guidance. Therefore, lacking sufficient information to demonstrate that materials have been placed at the proper density/moisture levels, we may not be able to concur that the remedial action has been completed in conformance with the RAP. For that reason, we are unable to concur in Revision C of the RAIP.

To resolve this issue, DOE needs to provide adequate justification that the material characteristics and testing employed and test results are sufficient to confirm that the contaminated material placement requirements are met and that there is reasonable assurance of site stability and adequate protection of public health and safety. This justification should be provided in the RAP. To assist you in providing the justification needed, the information outlined in Enclosure 1 should be considered.

On October 11, 1989, we will be conducting an inspection at the Green River site. At that time, members of my staff will be available to discuss any questions you may have regarding details of the information and justification required to resolve this issue. We also expect to perform a detailed review of the test data that was generated during the placement of contaminated material.

If you have any questions, please do not hesitate to call.

Sincerely,

ORIGINAL SIGNED BY
 Paul Lohaus, Chief
 OB/LLWM/NMSS

cc: Sally Mann, DOE Hq.
 Larry Anderson (State of Utah)
 Chris Watson, DOE Alb.

Distribution: Central File # WM-68
 JGreeves, LLWM MBell, LLRB
 MFliege, LLOB TJohnson, LLOB
 BJagannath, LLTB

NMSS r/f
 JSurmeier, LLTB
 DGillen, LLOB

RBangart, LLWM
 PLohaus, LLOB
 MTokar, LLTB
 JJones, LLOB r/f

PDR YES ☒

PDR NO ☐ Category: Proprietary ☐ or CF Only ☐

ACNW YES ☒ NO ☐ * SEE PREVIOUS CONCURRENCE

SUBJECT ABSTRACT: Review of Green River Remedial Action Inspection Plan

OFC :LLOB* :LLOB :LLTB* :LLTB :LLOB :LLWM :NMSS

NAME:TJohnson/jj :MFliege :BJagannath :MTokar :PLohaus : :

DATE:10/04/89 :10/15/89 :10/04/89 :10/04/89 :10/15/89 : / /89 : / /89

ENCLOSURE 1

ADDITIONAL INFORMATION AND JUSTIFICATION NEEDED
IN GREEN RIVER FINAL REMEDIAL ACTION PLAN

ISSUE: Tests to verify the placement density and moisture content of the contaminated materials placed in the disposal cell were not required at a frequency of one test per 1000 cubic yards of material placed, as recommended in NRC staff guidance and as generally performed at other UMTRA sites. Rather, a performance specification was set and less frequent "non-record" verification tests were performed.

RESOLUTION: DOE needs to provide a detailed justification that the field and laboratory testing performed, in conjunction with the performance specification, is adequate to provide reasonable assurance that the in-place contaminated materials meet the RAP design requirements for density and moisture. In formulating this justification, DOE should consider, and provide detailed information on, the following:

- The uniformity of the contaminated materials, as supported by gradation tests, resulting gradation parameters, and Proctor compaction tests.
- The results and locations of all density and moisture tests that were performed, including results of the trial compaction, and an analysis of the data which provides the basis for confidence that the moisture/density requirements are met.

Mr. Mark Matthews, Acting Project Manager
 Uranium Mill Tailings Project Office
 U. S. Department of Energy
 P. O. Box 5400
 Albuquerque, NM 87115

Dear Mr. Matthews:

We have reviewed Revision C of the Green River Remedial Action Inspection Plan (RAIP) and DOE responses to NRC comments. Rev. C of the RAIP was provided on June 1, 1989; we reviewed this document and were unable to provide our concurrence. Comments were transmitted to you on June 22, 1989. Based on our review of the information and data subsequently provided by DOE on August 15, 1989, we conclude that the procedures in the RAIP are not adequate to assure that acceptable moisture/density testing has been performed. The RAIP procedures do not adequately confirm that contaminated materials have been placed at the proper density/moisture levels, since the RAIP (Rev. C) has provisions only for limited verification testing, compared to Rev. B of the RAIP or to NRC generic guidance. Therefore, lacking sufficient information to demonstrate that materials have been placed at the proper density/moisture levels, we may not be able to concur that the remedial action has been completed in conformance with the RAP. For that reason, we are unable to concur in Revision C of the RAIP.

To resolve this issue, DOE needs to provide adequate justification that the material characteristics and testing employed and test results are sufficient to confirm that the contaminated material placement requirements are met and that there is reasonable assurance of site stability and adequate protection of public health and safety. This justification should be provided in the RAP. To assist you in providing the justification needed, the information outlined in Enclosure 1 should be considered.

On October 11, 1989, we will be conducting an inspection at the Green River site. At that time, members of my staff will be available to discuss any questions you may have regarding details of the information and justification required to resolve this issue. We also expect to perform a detailed review of the test data that was generated during the placement of contaminated material.

If you have any questions, please do not hesitate to call.

Sincerely,

Paul Lohaus, Chief
 OB/LLWM/NMSS

Distribution: Central File # WM-68	NMSS r/f	RBangart, LLWM
JGreeves, LLWM	JSurmeier, LLTB	PLohaus, LLOB
MFliege, LLOB	DGillen, LLOB	MTokar, LLTB
MBell, LLRB		JJones, LLOB r/f
TJohnson, LLOB		
BJagannath, LLTB		

PDR YES ☒

PDR NO ☐ Category: Proprietary ☐ or CF Only ☐

ACNW YES ☒ NO ☐ * SEE PREVIOUS CONCURRENCE

SUBJECT ABSTRACT: Review of Green River Remedial Action Inspection Plan

OFC :LLOB* :LLOB :LLTB* :LLTB :LLOB :LLWM :NMSS

NAME: TJohnson/jj : MFliege : BJagannath : MTokar : PLohaus : :

DATE: 10/04/89 : / /89 : 10/04/89 : 10/4/89 : / /89 : / /89 : / /89

Mr. Mark Matthews, Acting Project Manager
 Uranium Mill Tailings Project Office
 U. S. Department of Energy
 P. O. Box 5400
 Albuquerque, NM 87115

Dear Mr. Matthews:

We have reviewed Revision C of the Green River Remedial Action Inspection Plan (RAIP) and DOE responses to NRC comments. Rev. C of the RAIP was provided on June 1, 1989; we reviewed this document and were unable to provide our concurrence. Comments were transmitted to you on June 22, 1989. Based on our review of the information and data subsequently provided by DOE on August 15, 1989, we conclude that the procedures in the RAIP are not adequate to assure that acceptable moisture/density testing has been performed. The RAIP procedures do not adequately confirm that contaminated materials have been placed at the proper density/moisture levels, since the RAIP (Rev. C) has provisions only for limited verification testing, compared to Rev. B of the RAIP or to NRC generic guidance. Therefore, lacking sufficient information to demonstrate that materials have been placed at the proper density/moisture levels, we may not be able to concur that the remedial action has been completed in conformance with the RAP. For that reason, we are unable to concur in Revision C of the RAIP.

To address this issue, DOE needs to justify that the material characteristics and testing employed and test results are sufficient to confirm that the contaminated material placement requirements are met and that there is reasonable assurance of site stability and adequate protection of public health and safety. This justification should be provided in the RAP. To assist you in providing the justification needed, the information outlined in Enclosure 1 should be considered.

On October 11, 1989, we will be conducting an inspection at the Green River site. At that time, members of my staff will be available to discuss any questions you may have regarding details of the information and justification required to resolve this issue. We also expect to perform a detailed review of the test data that was generated during the placement of contaminated material.

If you have any questions, please do not hesitate to call.

Sincerely,

Paul Lohaus, Chief
 OB/LLWM/NMSS

Distribution: Central File # WM-68
 JGreeves, LLWM MBell, LLRB
 MFliege, LLOB TJohnson, LLOB
 BJagannath, LLTB

NMSS r/f
 JSurmeier, LLTB
 DGillen, LLOB

RBangart, LLWM
 PLohaus, LLOB
 MTokar, LLTB
 JJones, LLOB r/f

PDR YES ☒

PDR NO ☐ Category: Proprietary ☐ or CF Only ☐

ACNW YES ☒ NO ☐

SUBJECT ABSTRACT: Review of Green River Remedial Action Inspection Plan

OFC :LLOB :LLOB :LLTB :LLTB :LLOB :LLWM :NMSS

NAME: TJohnson/jj : MFliege1 : BJagannath : MTokar : PLohaus : :

DATE: 10/14/89 : / /89 : 10/14/89 : / /89 : / /89 : / /89 : / /89