

2856 RFP 94 States Government

Department of Energy
Rocky Flats Field Office

8/1/94 **memorandum**

TO: STIGER

JUL 20 1994

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LINGAME, A.H.		
BY, W.S.		
INIVAL, G.J.		
DOVA, R.C.		
IS, J.G.	X	
RERA, D.W.		
Y, R.E.		
S, J.A.		
VER, W.S.		
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NI, B.J.		
LY, T.J.		
AHL, T.G.		
IG, J.G.		
CHINS, N.M.		
KSON, D.T.		
L, R.E.		
ESTER, A.W.		
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DLIN, N.B.		
TERWHITE, D.G.		
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RTZ, J.K.		
CK, G.H.		
GER, S.G.	X	X
IN, P.M.		
RHEIS, G.M.		
SON, J.M.		
PRIMROSE A	X	X
SCHUBBE D	X	X

REF: BF/RJH:07306

Closure of The Rocky Flats Plant Operable Unit No. 15, Inside Building Closures

Sue Stiger, Associate General Manager
Environmental Restoration Management
EG&G Rocky Flats, Inc.

The purpose of this memorandum is to formally respond to your correspondence 94-RF-06331, dated June 13, 1994, concerning expediting the Record of Decision (ROD) Process for Operable Unit (OU) No. 15.

The Department of Energy (DOE) shares your goal of closing out OU 15 expeditiously, but we do not agree that the NO ACTION ROD is the preferred course. The OU-15 Final Phase I RCRA Facility Investigation/Remedial Investigation (RFI/RI) Work Plan stated that the purposes of the activities were: (1) to characterize the nature and extent of environmental contamination at, or resulting from, OU-15 Individual Hazardous Substance Sites (IHSSs); (2) to determine if releases have occurred; (3) to support the Baseline Risk Assessment, and (4) to determine the need for further action. The Work Plan defined specific activities to address these purposes, all of which have now been accomplished. The results of the analysis of the data gathered does not, in our view, support the conclusion that no further action is required.

The characterization of the six IHSSs that comprise OU-15 has been sufficient to determine that all may be clean closed under RCRA, except for the troublesome persistence of butyl benzyl phthalate in IHSS 178. We understand your strategy to argue that this is false positive in the verification sampling results; and clean closure standards have been met under RCRA. If you are successful in making that case, then the RCRA part of the IAG requirements will be met.

Closure under CERCLA poses a problem in that only non-intrusive methods, which do not measure radiological contamination in or under the construction materials, were included in the Work Plan. Thus, only surface sampling methods were used. The purpose of this sampling was to determine if surface contamination was present or if contaminants had been released; and if further action was warranted. The rationale is that any contaminants contained in the building materials of construction will be dealt with at the time that the building is dispositioned for interim or final use. Therefore, determination that surface radiological contamination is below surface contamination level standards only indicates that the surface has been cleaned, and if radionuclides are present in the building materials, their emissions are not penetrating the surface coating, which in this case is paint.

CORRESP. CONTROL	X	X
IN RECORD/080	X	2
IS/T130C	X	X

Reviewed for Addressee
Corres. Control RFP

7/25/94 BY RDM

ORDER # 5400.1

JUL 20 1994

The surface radiation is at levels less than those required for radiation worker protection in five of the six IHSSs. Smear samples were taken and analyzed for Alpha and Beta radiation in the sixth IHSS, No. 204, "The Original Uranium (U) Chip Roaster," before the associated surfaces were rinsed for verification testing. These smear samples contained both Alpha and Beta radiation at levels higher than the levels necessary to protect radiation workers. The presumption has been that the roaster would be used for future oxidation of clean U chips, as a Low Level Waste treatment unit and it is not at all certain that this will be the case. In fact, it appears that the roaster is a candidate for recycling as scrap metal under the National Conversion Pilot Project, leaving surface decontamination as a problem that is not contemplated in the present EG&G work program.

The final closure of all OU 15 IHSSs depends upon determining that the building materials exhibit radiation characteristics within the standards for unrestricted use. The question is when will this determination be made. It is DOE's view that the IHSSs in OU 15 be studied as a surficial problem and their final closure be deferred until each building is dealt with in its entirety.

The OU 15 Draft Phase I RFI/RI Report is scheduled for delivery on August 1, 1994, and the Final Phase I RFI/RI Report is scheduled for delivery on January 4, 1995. These documents will present the nature and extent of the contamination in OU 15. The next step will be to develop a plan for accomplishing future actions. At a meeting between DOE, EPA, CDH and EG&G held June 10, 1994, to discuss the possible courses of action DOE presented the Interim ROD (IROD) concept. This concept is presented in greater detail in the Position Paper titled "RCRA and CERCLA Closure of the OU 15 IHSSs," which is attached.

We recognize and support your proposal for accelerated closure of OU 15. Please ensure that your strategy for closure of this OU addresses elimination of the barriers highlighted in this memorandum. Please respond to this office by August 1, 1994 with your action plan for OU 15.

If you have any additional questions or wish additional information, please contact Dr. W. N. Fitch, of my staff, at extension 4013.



Jessie M. Roberson
Acting Assistant Manager for
Environmental Restoration

Attachments

cc w/Attachments:

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RCRA and CERCLA Closure of the OU-15 Individual Hazardous Substance Sites (IHSSs) Position Paper

PURPOSE:

The purpose of this paper is to identify the strategy necessary to RCRA and CERCLA close the OU-15 IHSSs.

BACKGROUND:

The Interagency Agreement (IAG), in Table 6, identifies the activities and their respective completion/milestone dates necessary to determine the nature and extent of all of the contaminants of concern (COCs) associated with the OU-15 IHSSs. The last of these actions culminates in very early 1995 with the delivery of the OU-15 Final Phase I RFI/RI Report on January 4, 1995. No OU-15 remediation/closure actions beyond this point have been identified. Present indications are that five of the OU-15 IHSSs, 179, 180, 204, 211 and 217, can be clean closed under RCRA, for toxic and hazardous substances, with no additional actions required. The sixth, IHSS 178, possesses an indication that butyl benzyl phthalate may be present. It is quite probable that the case can be made that this indication is a false positive. If this occurs, then all six of the OU-15 IHSSs can be RCRA clean closed as they stand with no further action required. On the other hand, closure of the OU-15 IHSSs for radiological COCs poses some problems. Current sampling techniques utilized only non-intrusive methods, which characterized surface contaminants. The presence of radiological contaminants below the painted surfaces of the IHSSs could not be adequately ascertained. Therefore, the final closure of these IHSSs for unrestricted access will entail the determination of the nature and extent of the radionuclides present below the painted surfaces, and the remediation of this identified radiological contamination to levels safe for unrestricted access. Since the OU-15 IHSS reside inside of former non-Plutonium Defense Production Buildings, which processed Uranium (U) and which currently exhibit radiological contamination in non-IHSS areas at levels exceeding those required for unrestricted access, cleaning up an IHSS to meet the requirements for unrestricted access while the remainder of the building does not meet such criteria, makes very little sense. Therefore, a more realistic approach to this situation is needed.

METHOD OF APPROACH (MOA):

It is believed that the best MOA would be one that would assure the protection of the general public and the environment while at the same time blending into the existing Rocky Flats Plant (RFP) building operations and their associated occupational/radiation worker protection programs. To this end, it is suggested that the best remedy for radiation protection is the continued reliance upon the administrative and institutional controls currently in place within the OU-15 Buildings (444, 447, 865, 881 and 883), such as: restricting access, posting, immobilization/barrier establishment (in the form of paint), to protect the workers in the interim until such time that each of the buildings can be dealt with in its entirety.

The above suggested remedy would be proposed and approved using the steps shown on the attached logic diagram titled "OU-15, Inside Building Closures, Proposed Plan (PP)/Interim Record of Decision (IROD) Process Logic Diagram." These steps include the preparation of a Proposed Plan (PP), a Public Comment Period (which will also be required for RCRA closure), the associated preparation of a Responsiveness Summary (RS); all ending with an IROD. The substance of these documents will be really quite small, so the schedule shown could be accomplished in approximately ten months. This would bring interim closure to the OU-15 IHSSs in late Calendar Year 1995 (CY95).

Based upon current sample data, in five of the six OU-15 IHSSs, 178, 179, 180, 211 and 217; it has been determined that the surface contamination and exposure are at levels below those required for the protection of radiation workers, while the sixth, IHSS 204 — The Original U Chip Roaster, possesses surface contamination levels well in excess of the radiation/occupational worker standards. Access to IHSS 204 is currently restricted and personnel entry is strictly controlled.

RCRA and CERCLA Closure of the OU-15 Individual Hazardous Substance Sites (IHSSs) Position Paper

METHOD OF APPROACH (MOA): (continued)

Protection of personnel is via approved entry procedures and the use of prescribed Personnel Protection Equipment (PPE). Therefore, it appears that the currently imposed controls within the buildings are adequate. At a June 10, 1994 Meeting between DOE, EPA, CDH and EG&G, held to address the OU-15 follow-on activities after the Final RFI/RI Report, the rationale for the need to decontaminate the OU-15 IHSSs to unrestricted access levels prior to the decontamination of the entire building was discussed, and the concept of the IROD was put forth by DOE. The EPA representative stated that the necessity of investigating for potential radiological contamination under the painted surfaces now did not appear reasonable and that the IROD for interim CERCLA closure appeared to be a feasible MOA, pending further evaluation by the EPA. Subsequent communication with the EPA has indicated that they may want to identify this as an Interim Measure/Interim Remedial Action (IM/IRA) rather than an IROD; however, it is believed that the differences will be largely illusory.

RECOMMENDATION:

It should be noted that an IM/IRA is planned to be performed in Buildings 444, 447, 865 and 883 as part of the National Conversion Pilot Project (NCPP) Stage II (characterization and cleanup) effort, which offers the potential to deal with the radiation question in these buildings as part of the NCPP decontamination program for each of these buildings. Provided that the NCPP is fully funded, it is probable that any radiation present would be decontaminated to the levels necessary to permit restricted use by radiation workers. However, this only offers a partial respite in that the radiological contamination associated with the building materials would still await decontamination to unrestricted access levels at a later date.

In the case of IHSS 204, the roaster unit is a candidate for recycling under the NCPP. If this unit should be removed for its scrap metal value and the surrounding surface areas decontaminated, then this IHSS would meet the same criteria that the other OU-15 IHSSs currently do with respect to radiological contamination. If the NCPP does not continue, then the problem is how to close this IHSS. It is a part of OU-15 and has experienced prior radiological contamination that will have to be dealt with under CERCLA. With respect to this aspect, the question is: will U chips be roasted in the future? If not, then the IHSS will have to be closed out under OU-15. A strategy here could be to isolate/cover the unit and decontaminate the surrounding floor and wall surface areas within the IHSS to those levels safe for radiation workers and wait for a final building use determination, i.e., decontamination and decommissioning (D&D). If the unit is to be used for new LLW treatment, then responsibility for cleanup and closure would transfer to the Waste Management Organization, since it would be an active unit.

Attachment 1 to the IAG, paragraph I.B.11.a. states that for "no further action" the EPA and the State must determine:

- That there has not been a release of hazardous constituents or hazardous substances to the environment external to the unit and
- That there is no threat of post-closure escape of hazardous waste, hazardous constituents, leachates, run-off, hazardous waste decomposition products or hazardous substances.

With respect to OU-15, the sample data will support the fact that the IHSSs meet this first requirement. However, the fact that the IHSSs are not radiologically clean, as is the condition for the remainder of each building, means that the second requirement can not be attained until each building is addressed in its entirety.

In view of the above, it is felt that the IROD approach is the only one that is realistic, feasible and achievable in the near term, and it is highly recommended that it be the one utilized.

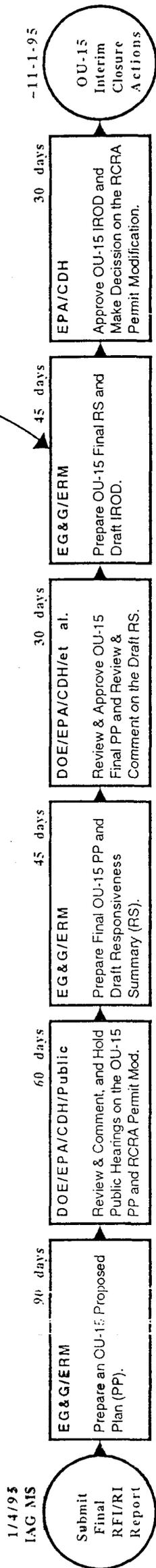
OU-15. INSIDE BUILDING CLOSURES

PROPOSED PLAN (PP)/INTERIM RECORD OF DECISION (IROD) PROCESS

LOGIC DIAGRAM

July 7, 1994

The Interim Record of Decision (IROD) is defined as - A Record of Decision (ROD) in the Interim Pending Final Remediation Under Building Economic Development (ED), Alternate Reuse and/or Decontamination and Decommissioning (D&D).



NOTE

The durations shown on this diagram are representative and are used for discussion purposes only.

NOTE

The logic depicted herein provides a basis for discussion only. This diagram in no way attempts to show the entire detailed process involved.