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Rocky Mountain  
Remediation Services, L.L.C.  
... protecting the environment

# INTEROFFICE MEMORANDUM

DATE: July 20, 1995

TO: J. E. Law, Sitewide Actions, Bldg. 080, X8760

FROM: *MLB* M. C. Broussard, Accelerated Actions, Bldg. 080, X8517

SUBJECT: 903 PAD - MCB-101-95

Action: Provide contact.

Based on a prior calculation, the 903 Pad was classified as a Hazard Category 3 Nuclear Facility. Environmental Restoration has been working to have the prior determination re-assessed and as explained in the attached memo (Attachment 1), it appears Dave Satterwhite is now going to complete this task in FY'95.

The memo requests a single point of contact be designated to work not only the 903 Pad but each of the other OU's with the Nuclear Safety Organization. In the new organizational structure, I believe it would be appropriate to assign Jerry Anderson, who is our matrixed radiological engineer, to be the point of contact. If this meets with your concurrence, Jerry would need someone to report to on this project from your organization.

Please provide that contact and I will task Jerry to coordinate activities with Dave and begin working the issue. The outcome of these classifications will have an effect on future environmental activities.

Thank you for your input on this matter.

Attachment:  
As Stated

laa

- cc:
- S. Evans
- K. Jenkins
- A. Parker
- D. Steffen
- A. Tyson
- ER Project File (2)



ADMIN RECORD

BZ-A-000 319

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## INTEROFFICE CORRESPONDENCE

DATE: June 23, 1995

TO: S. G. Stiger, Environmental Restoration, Bldg. 080, x8540

FROM: M. M. McDonald, Organizational Effectiveness, Bldg. 111, x6475 *mmm McDonald*

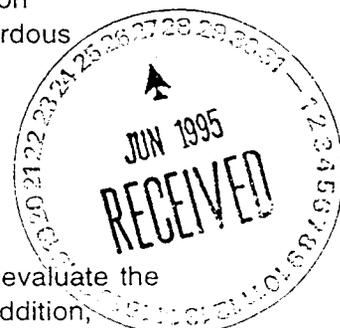
SUBJECT: HAZARD CLASSIFICATION OF 903 PAD AND OPERABLE UNITS-MMM-079-95

REF:

- (a) Rocky Flats Plant Safety Analysis Program Implementation Plan Revision 2, January 1994
- (b) DOE Order 5480.23, Nuclear Safety Analysis Reports
- (c) DOE-STD-1027-92, Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports
- (d) DOE Order 5481.1B, Safety Analysis and Review System
- (e) Rocky Flats Environmental Technology Site Facilities Hazards Assessment and Classification, NSTR-016-94, December 16, 1994
- (f) D. G. Satterwhite ltr, DGS-116-94, to S. G. Stiger, Safety Analysis Approach for Environmental Remediation Activities, May 31, 1994
- (g) T. P. Grumbly ltr, EM-23 (Thompson:301-427-1610), to Distribution, Hazard Baseline Documentation Strategy - Clarification of Applicability for DOE Order 5480.23 and the Use of a Basis for Interim Operations, February 1, 1995
- (h) DOE-STD-3011-94, Guidance for Preparation of DOE 5480.22 (TSR) and DOE 5480.23 (SAR) Implementation Plans, November 1994
- (i) T. P. Grumbly ltr, EM-23 (Thompson:301-427-1610), to Distribution, Classification of Environmental Management Facilities and the Status of Hazard Baseline Documentation, March 10, 1995
- (j) DOE-EM-STD-5502-94, Hazard Baseline Documentation, August 1994
- (k) DOE SAFT-0029, Hazard Categorization Standard for EM Facilities and Activities, Draft Revision 2, March 17, 1995
- (l) 40 CFR 302, Designation, Reportable Quantities, and Notification
- (m) 29 CFR 1910.119, Process Safety Management of Highly Hazardous Chemicals
- (n) 40 CFR 355, Emergency Planning and Notification

PURPOSE:

The primary purpose of this correspondence is to address a course of action to re-evaluate the current classification of the 903 Pad as a Hazard Category 3 nuclear facility. In addition, requirements and recommendations regarding hazard classifications of the Operable Units (OUs), are provided.



BACKGROUND:

The Safety Analysis Program Implementation Plan (SAPIP), reference (a), describes an Integrated Safety Analysis Program intended to meet the requirements of DOE Order 5480.23, reference (b). In accordance with the guidance contained in DOE-STD-1027-92, reference (c), the SAPIP classifies the 903 Pad as a Hazard Category 3 nuclear facility based on a plutonium material at risk estimate of 86 grams. The reference (c) thresholds for radionuclides for Hazard Category 3 (and 2) are calculated using models which contain a release fraction value for the material of concern.

The Site Safety Analysis Report (Site SAR), in conjunction with certain individual facility SARs, will establish an updated authorization basis for operation of the site. The Site SAR will meet the requirements of reference (b) and DOE Order 5481.1B, reference (d), and will include Hazard Category 3 nuclear facilities and environmental remediation operations/activities. Reference (e), NSTR-1016-94, which summarizes the hazard analysis performed for the Site SAR (i.e. Phase 1 of the Site SAR Project), states that hazard characterization data was compiled for the OUs, but that hazard classifications were not performed due to insufficient data. Reference (e) lists the 903 Pad as a Hazard Category 3 nuclear facility based on its previous identification.

Reference (f) provided a proposed approach for performing safety analyses for ER activities. This approach discussed the use of the Site SAR and existing ER analyses for developing graded safety basis documentation, and described the success achieved using this approach for the Solar Pond closure activities.

References (b) and (c) address the requirements and guidelines for SARs required for nuclear facilities. Reference (b) requires the development of an implementation plan with a Basis for Interim Operation (BIO) prior to the submittal of the nuclear SAR. Reference (g) granted the use of the safety analysis in the BIO (as described in reference (h)) to satisfy the requirements of developing a SAR for nuclear nonfacility operations. Nuclear nonfacility operations are defined as those activities not associated with physical facilities that contain a releasable inventory of radiological materials above the thresholds for Hazard Category 3 nuclear facilities. Examples include the cleanup of contaminated soil, the cleanup of contaminated groundwater, waste storage drum retrieval, etc. The 903 Pad would therefore require a BIO but not a separate nuclear SAR.

Reference (i), copy attached, directs the submittal of Environmental Management facility classification in accordance with DOE-EM-STD-5502-94, reference (j), or a schedule for meeting that objective. (The term "facility" encompasses activities and projects as well as physical facilities.) Reference (j) defines the four classes of facilities (nuclear, non-nuclear, radiological, and other industrial); provides guidance on the thresholds for facility hazard classification; and discusses applicable safety and health identification, controls, and documentation requirements.

DISCUSSION:

Since the 903 Pad does not have a SAR and is currently classified as a nuclear facility, a BIO would

be required as stated above. However, the Manager of Safety Analysis intends to re-evaluate the nuclear facility designation by addressing the release fraction used in the calculation which resulted in exceeding the Hazard Category 3 threshold value. The release fraction value used in reference (c) is for a solid/powder/liquid ( $1E-3$ ). It would appear technically correct to apply a lesser value in view of the pad's asphalt cap. (Reference (k) addresses Environmental Management facilities and activities where the assumptions considered in reference (c) are inappropriate. Reference (k) discusses establishing revised threshold values using adjustments in release fractions.) The intent is to make the argument that the 903 Pad is a radiological facility vice a nuclear facility. (Note: a radiological facility, as stated in reference (j), has an inventory of radiological materials below the levels for a Hazard Category 3 nuclear facility but above the reportable quantity (RQ) value listed in Appendix B to Table 302.4 of 40 CFR 302, reference (l)). The re-evaluation is planned to be conducted as part of the next update to Phase 1 of the Site SAR (i.e. revision to reference (e)), which Nuclear Safety intends to complete by the end of this fiscal year.

As previously noted, reference (e) states that hazard classification of the OUs was not performed due to insufficient data. The Manager, Safety Analysis intends to classify the OUs as part of the FY 96 Site SAR effort. Should additional data suggest, based on the reference (c) models, that an OU is a nuclear facility, the release fraction value will again be assessed with a view to technically justify a radiological facility designation.

As discussed above, reference (i) requires the classification of facilities in accordance with DOE-EM-STD-5502-94. Of particular significance is that the standard lays out the safety and health documentation requirements for the classes of facilities: nuclear (which hopefully ER will not have), radiological, non-nuclear, and other industrial. Safety analyses requirements are dependent upon hazardous materials inventories, as discussed in references (l), (m), and (n), as well as radionuclide quantities. Facilities with hazardous waste activities also require health and safety plans. Figures 1 and 2 of this standard, and Figure 4-1 of reference (e), provide a good overview of these requirements.

#### RECOMMENDATIONS:

The plan of action to re-evaluate the 903 Pad nuclear facility designation by addressing the release fraction value, as described above, should be followed. As previously stated, the Manager, Safety Analysis intends to conduct this analysis, which will be included in the Site SAR, and a request from you is not needed. Neither, at this time, is funding from ER being requested. A single point of contact within ER to follow the progress of this activity is recommended. The ER point of contact should work with Site SAR Project personnel in this regard.

It should be noted that the methodology of using a different release fraction value to appropriately classify an ER facility will, by definition, only be valid for the existing condition of the facility. For example, for the 903 Pad a release fraction value which accounts for the asphalt cap will only apply to that condition. Should remediation of the 903 Pad be considered in the future, the physical condition of the pad during and after that

activity would have to be taken into account in reassessing the designation of the facility.

Nuclear Safety has identified a requirement for additional data in order to perform hazard classifications of the OUs, as previously discussed. It is quite possible that sufficient data exists and only needs to be provided for the classification analyses to proceed. It is recommended that the ER point of contact work with Site SAR Project personnel in identifying and providing, to the extent available, required data.

DOE-EM-STD-5502-94, reference (j), emphasizes that safety and health documentation is to be integrated to the maximum extent practical so as to avoid redundancy and duplication, and to provide a consistent approach for each element. If not already done, consideration should be given to assigning an ER subject matter expert to assist cognizant managers in this regard, and to interface with representatives of other site organizations involved. This approach would ensure consistency in developing safety and health documentation across ER, and would facilitate the required facility hazard classifications.

AWK:awk

Attachment:  
As Stated

Concurrence:



D. G. Satterwhite  
Manager, Nuclear Safety

cc:  
A. W. Kuester  
D. R. Swanson

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Attachment  
S. G. Stiger  
MMM-079-95

June 23, 1995

United States Government

TO	FROM
Tom Stiger	Tom Stiger
DATE	PHONE
4/16/95	5744
	3744

Department of Energy  
DOE  
U.S. DEPARTMENT OF ENERGY  
MAILROOM

# memorandum

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DATE: MAR 10 1995

ATTN: EM-23 (Thompson:301-427-1610)

SUBJECT: Classification of Environmental Management Facilities and the Status of Hazard Baseline Documentation

## Distribution

This memorandum requests that the Field classify all Environmental Management facilities and that the Operations/Field Office Managers provide the status of hazard baseline documentation as defined in DOE-EM-STD-5502-94, *Hazard Baseline Documentation*, to the appropriate Deputy Assistant Secretaries and the Director of Environmental Management's Office of Safety and Health. In my memorandum of October 28, 1994, I directed that DOE-EM-STD-5502-94 be used for Environmental Management facilities and activities. Hazard categorization based on the inventory of radiological and hazardous material is necessary to determine the appropriate level of hazard documentation for EM facilities and activities. The facility/activity categories include nuclear, non-nuclear, radiological, and other industrial. An environmental restoration activity, for example, could be classified as radiological and required to develop an Auditable Safety Analysis, and Health and Safety Plan rather than the more voluminous and resource intensive Nuclear Safety Analysis Report.

This direction supports Goal 2 of Environmental Management's strategic plan for the development of Safety Analysis Reports, and Health and Safety Plans for all major Environmental Management facilities by December 1995. It will also enable Headquarters to identify any additional facilities that should be added to the Safety Analysis Report Implementation Plans to be prepared under the Nuclear Safety Rules. Finally, this information will be needed by the Program Managers for budget formulation to assure that necessary safety baseline documents are funded (i.e., they need to be identified on the Activity Data Sheets).

The submittal of Environmental Management facility classification in accordance with DOE-EM-STD-5502-94, or a schedule for meeting this objective shall be forwarded to me within 90 days. The submittal for Environmental Management facilities shall contain the facility/activity designation, the facility classification, the hazard baseline documentation required, and the status/schedule of present or planned documentation. Note that a facility manager may need different documents for different activities (e.g., Health and Safety Plan (per 29 CFR 1910.120) for hazardous waste activities, or a construction Safety and Health Plan (per DOE E480.9A) for construction-related activities). In cases where facilities are classified outside of the methods suggested in DOE-EM-STD-5502-94, the basis for their classification shall also be submitted.

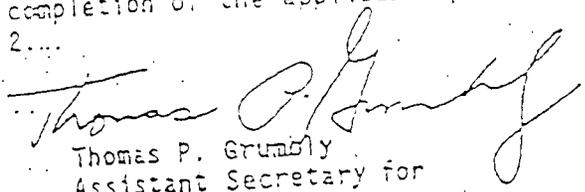
In order to better monitor progress towards meeting these goals, the Operations/Field Office Managers shall update the submittal on a quarterly

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basis from the original submittal through July 1995 and on a monthly basis thereafter until satisfactory completion of the applicable portions of Environmental Management Goal 2....



Thomas P. Grumbly  
Assistant Secretary for  
Environmental Management

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