

Memorandum of Understanding Governing Regulation and Oversight of Department of Energy Activities in the Rocky Flats Environmental Technology Site Industrial Area

Department of Energy
Environmental Protection Agency
Colorado Department of Public Health and Environment
Defense Nuclear Facilities Safety Board

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I. BACKGROUND AND STATEMENT OF PURPOSE

The Department of Energy (DOE) manages a government-owned, contractor-operated facility at Rocky Flats in the State of Colorado that formerly played a major role in the production of nuclear weapons. Weapons production has ceased and the mission has changed primarily to decommissioning. Most remaining operations are dedicated to stabilization, treatment, safe storage, and containment of special nuclear materials (SNM) and waste at the site. Activities at the site, now named the Rocky Flats Environmental Technology Site (RFETS), range from interim storage of plutonium pits awaiting final disposition off-site, to removal and remediation activities at designated operable units under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Colorado Hazardous Waste Act (CHWA), and Resource Conservation and Recovery Act (RCRA).

Three independent entities currently oversee and regulate environmental, health, and safety aspects of DOE activities at RFETS. These entities are the U.S. Environmental Protection Agency (EPA), the Defense Nuclear Facilities Safety Board (DNFSB or Board), and the Colorado Department of Public Health and Environment (CDPHE). In some circumstances, these entities exercise concurrent jurisdiction over facilities or materials as the result of overlap in applicable statutory provisions. For example, cleanup of a facility contaminated with mixed

radioactive waste is subject to regulation by EPA and Colorado, pursuant to CERCLA, RCRA, and CHWA (depending on the nature of the cleanup action), as well as by DOE and the Board pursuant to the Atomic Energy Act of 1954, as amended (AEA). Plutonium and other nuclear materials mixed with hazardous waste are subject to RCRA permits governing treatment, storage, and disposal of the hazardous component of "mixed" waste, and are also subject to Board safety oversight of nuclear waste storage. DOE regulates activities related to special nuclear material, subject to DNFSB oversight, under the AEA.

In this Memorandum of Understanding (MOU), the three regulatory/oversight entities agree to cooperate by fulfilling their respective legal responsibilities in an integrated manner designed to minimize impediments to progress in DOE's cleanup and decommissioning efforts. DOE is provided with a single qualified entity serving as coordinator for each activity. The objective is to prevent redundant and potentially wasteful regulation or oversight of DOE activities in the RFETS Industrial Area during remaining operations, deactivation, and decommissioning. At a joint meeting of the principals on October 10- 11, 1995, in Denver, the four entities agreed to discuss protocols whereby DOE would interface with a single entity, and would be subject to a single set of consistent standards and requirements, for any given operation, decommissioning, or cleanup activity. The goal is to establish a single primary regulator ("primary entity") with authority and responsibility for each activity. The other regulatory/oversight entities are expected, to the extent permitted by law, to work through the primary entity in resolving environmental, safety, and health issues with DOE.

This draft MOU is the result of discussions among DOE and the three entities following the Denver meeting, and details the procedures and protocols governing interactions among the regulatory and oversight entities. Substantive safety, environmental, and health requirements and protocols for operations, decontamination, and decommissioning activities are being developed by another working group.

This MOU adheres to the following general principles:

1. Each of the four entities (DOE, EPA, DNFSB, and CDPHE) recognizes the legitimate interests of the other entities, and the citizens of the State of Colorado and the nation at large, in the operation, decommissioning, cleanup and environmental restoration of RFETS in a manner that adequately protects public health and safety and the environment.
2. Each of the four entities agrees that the primary entity will keep the public appropriately informed of environmental, safety, and health activities at the site and involve the public in the decision-making processes to the extent allowed by law.
3. To avoid inefficient duplication of regulation and oversight of DOE activities at RFETS, the four entities agree to:
 - a. Recognize the need for different entities to play primary, secondary, and other roles in the regulation and oversight of different activities occurring at RFETS from now until completion of environmental restoration. These roles are largely determined by the strength of statutory mandates and the expertise possessed by the various entities;
 - b. Cooperate in preparing and commenting on, or concurring with, as appropriate, a site-wide deactivation and decommissioning plan for RFETS, to be completed by the end of 1996; and
 - c. Review and comment on, or concur with, as appropriate, project plans for major facilities, for example, buildings 371, 771, 776/777, 707, and 991, and in standards/requirements identification documents ("S/RIDs") and other standards designed to govern the deactivation and decommissioning process with an eye toward early resolution of any environmental, safety, and health issues and toward avoiding conflicts and disputes which can delay the process.

4. Statutory responsibilities and jurisdiction of the four entities are not expanded, diminished, or altered by the terms of this MOU. The AEA, and Federal and State environmental, safety, and health statutes prescribe responsibilities that must be accommodated. For example, regardless of the designation of a primary entity, federal agencies retain emergency response powers that cannot be overridden given a substantial threat of release of a hazardous substance into the environment, or an imminent or severe threat to public health or safety. Moreover, the State must protect its citizens from any threats to their health and safety arising at RFETS. Both EPA and State authorities retain responsibilities for enforcement against violations of the law. The Board retains responsibility for issuance of safety recommendations to the President or the Secretary of Energy if "necessary to adequately protect public health and safety."

Advantages of this MOU process include:

- Streamlining EPA/CDPHE into a lead regulator for environmental regulatory activity;
- Identifying a single set of consistent requirements for all activities in the Industrial Area;
- Identifying a primary regulatory/oversight entity for each activity to serve as the point-ofcontact for DOE. Secondary entities may independently monitor and inspect activities in a manner that does not adversely impact DOE or the contractor, and shall work through the primary entity to resolve any concerns identified, to the extent allowed by law;
- Identifying a dispute resolution process that will ordinarily be used before an entity exercises its enforcement or reserved statutory authority;
- Satisfying the environmental, safety, and health priorities of each entity; and
- Preserving mandatory statutory responsibilities of each entity in the event disputes cannot be resolved through the process delineated in this MOU.

II. REGULATORY AND OVERSIGHT ROLES

A. Primary Regulatory / Oversight Entity

A primary regulatory/oversight entity (hereinafter referred to as primary entity) is either CDPHE, EPA, or DNFSB, and will take the lead in regulation or oversight of designated DOE activities. (See [Figure 1](#).) Primary entities in this MOU have been selected based upon the scope and depth of the entities' legal responsibilities for the activities and materials covered, and upon the recognized expertise which each primary entity brings to the environmental, safety, and health problems associated with those activities and materials.

B. Secondary Regulatory / Oversight Entities

A secondary regulatory/oversight entity (hereinafter referred to as secondary entity) is either CDPHE, EPA, or DNFSB. Secondary entities possess special expertise or legal responsibilities for regulating or overseeing aspects of the activities or materials covered and agree to work through the primary entity in resolving environmental, safety, and health issues with DOE, to the extent allowed by law. Secondary entities support monitoring or inspection activities of the primary entity, but are not precluded from conducting independent inspection activities or acquiring information, consistent with statutory responsibilities. A secondary entity's health, safety, and environmental

comments, findings, and concerns will be presented to, and resolved with, DOE through the primary entity, to the extent allowed by law.

Secondary entities will either review and concur with, or review and concur with, the primary entity on DOE's activities and the primary entity's regulatory/oversight proposal, plan, finding, compliance activity, or other action, as appropriate. (See [Figure 1](#) text.) Concurrence is achieved if consensus is reached between the primary and secondary entities with respect to the regulatory or oversight issues. Primary entities will consider the comment of entities with review and comment authority as identified in this MOU. However, with respect to entities with review and comment authority, there is no obligation on the part of the reviewing entity to provide comments in all cases. With respect to any secondary entity, there is no obligation on the part of primary entities to reach consensus with the secondary entities. In the event a secondary entity cannot fulfill its statutory obligations by working through the primary entity, the secondary entity may invoke the dispute resolution clause as appropriate prior to invoking the reserved authority clauses of this MOU. Secondary entities having the right under this MOU to review and concur, but having no jurisdiction over materials or activities, will have no further role under this MOU after exhausting the dispute resolution process with the primary entity.

III. DEFINITIONS

The following definitions are not universally-accepted, but have been provided for the purpose of interpreting and using this MOU.

A. Decommissioning

DOE defines decommissioning in its Decommissioning Resource Manual, DOE/EM0246, August 1995, to be that which takes place:

After deactivation and includes surveillance and maintenance, decontamination and/or dismantlement. These actions are taken at the end of life of the facility to retire it from service with adequate regard for the health and safety of workers and the public and protection of the environment. The ultimate goal of decommissioning is unrestricted release or restricted use of the site.

Surveillance and Maintenance is a program established during deactivation and continuing until phased out during decommissioning to provide in a cost effective manner for satisfactory containment of contamination; physical safety and security controls; and maintenance of the facility in a manner that is protective of workers, the public, and the environment. (Decommissioning Resource Manual, § 3.3.)

This definition confines the decommissioning phase in a facility's life cycle to the period following deactivation, defined below.

B. *Decontamination*

The removal or reduction of radioactive or hazardous contamination from facilities, equipment or soils by washing, heating, chemical or electrochemical action, mechanical cleaning or other techniques to achieve a stated objective or end condition. (Decommissioning Resource Manual, § 3.3.)

"Decontamination" is not a phase in the life of a facility. Rather, it is a process that can be initiated at any point in the life of a facility to reduce system, structure, or component radioactivity and hazardous materials levels for a specific purpose.

C. *Deactivation*

The process of placing a facility in a safe and stable condition to minimize the long-term cost of a surveillance and maintenance program that is protective of workers, the public, and the environment until decommissioning is complete. Actions include the removal of fuel, draining and/or de-energizing of nonessential systems, removal of stored radioactive and hazardous materials and related actions. As the bridge between operations and decommissioning, based upon facility-specific considerations and final disposition plans, deactivation can accomplish operations-like activities such as final process runs, and also decontamination activities aimed at placing the facility in a safe and stable condition. (Decommissioning Resource Manual, § 3.3.) Deactivation does not include all decontamination necessary for the dismantlement and demolition phase of decommissioning, i.e., removal of contamination remaining in the fixed structures and equipment after deactivation.

D. *Dismantlement*

The disassembly or demolition and removal of any structure, system, or component during decommissioning and satisfactory interim or long-term disposal of the residue from all or portions of the facility. (Decommissioning Resource Manual, § 3.3.) Residue in this context refers only to contamination remaining in the fixed structures and equipment remaining after deactivation.

E. *Storage*

A process that takes place throughout the life of a facility, consisting of retrievable retention of material or waste pending final disposition.

F. *Decommissioning of Defense Nuclear Facilities*

Regarding defense nuclear facilities in the context of the AEA, decommissioning includes the combined deactivation, decontamination, and dismantlement activities necessary to remove or reduce the radiological health and safety hazards of a facility to a level below which adequate protection of the health and safety of workers and the public can be assured without oversight. These actions ultimately render a facility incapable of functioning as a defense nuclear facility. At that point, the facility is "decommissioned." This definition of decommissioning for defense nuclear facilities subsumes the various DOE subdivisions of decommissioning, including "deactivation," "surveillance and maintenance," "decommissioning," and "dismantlement."

This particularized definition of decommissioning is included to illuminate the scope of the Board's statutory obligations regarding oversight of defense nuclear facilities.

G. Defense Nuclear Facilities

A Department of Energy nuclear production, utilization, or waste storage facility at any stage of its life cycle from design, construction, operation, to decommissioning, as further defined by the AEA.

H. Plutonium Operations Buildings

Those buildings at Rocky Flats, which, until fully decommissioned, store or contain plutonium metal or residue. See Public Law 102-190 at §§ 3133(a), (e). Such buildings may also be facilities containing RCRA mixed waste if plutonium or other radionuclides are contaminated with RCRA hazardous waste.

I. Radioactive Materials and Waste

1. Special Nuclear Material

Plutonium, uranium enriched in the isotope 233 or in the isotope 235, any other material artificially enriched by these materials, and any other materials identified by DOE or the NRC, as stated in AEA § 2014 (aa).

2. TRU Materials

Elements that have an atomic number greater than 92 (uranium), including neptunium, plutonium, americium, and curium.

3. TRU Waste

Without regard to source or form, waste that is contaminated with alpha-emitting transuranium radionuclides with half-lives greater than 20 years and concentrations greater than 100 nCi/g at the time of assay.

4. RCRA Mixed Hazardous and Radioactive Waste

Waste that contains both hazardous waste subject to RCRA and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2011 et seq.).

5. Low Level Radioactive Waste

Radioactive waste that is not high level waste, spent nuclear fuel, or byproduct material. Low-level radioactive waste is further defined in the Low Level Radioactive Waste Policy Act, codified in 42 U.S.C.A. § 2021b(9), and its attendant regulations.

6. Mixed Low Level Radioactive Waste

RCRA mixed waste, as defined above, where the radioactive component is low level

radioactive waste, also as defined above.

7. TRU-Mixed Waste

RCRA mixed waste, as defined above, where the radioactive component is TRU waste, also as defined above.

J. Regulatory Authority

Regulatory authority is the ability, granted by statute, to oversee, control, direct, or restrict another person's or entity's action by regulation/rule or other legally enforceable order, specification, or requirement. Rulemaking, licensing, permitting, compliance, and enforcement actions are means by which an entity implements its regulatory authority.

K. Independent Oversight Authority

Independent oversight authority is the ability to scrutinize the programs and activities of another person or entity to determine compliance with an established set of legal or technical requirements. For purposes of this MOU, it includes investigative powers, performance of technical assessment, and submission of the results to the entity for corrective action.

Oversight is a function often performed by regulatory entities. However, oversight authority does not include a grant of full regulatory authority to control, direct, or restrict another's action by rules, orders, or requirements. Typical functions of an oversight entity are to investigate, observe, and evaluate performance against applicable requirements and standards, conduct technical assessments and hearings, gather technical information, and suggest corrective action to the overseen entity.

IV. RESPONSIBILITIES OF A PRIMARY ENTITY

DOE is responsible for all activities at RFETS, including: (1) remaining nuclear defense activities and deactivation under the AEA, subject to DNFSB oversight of safety in defense nuclear facilities; (2) compliance with applicable environmental laws and requirements, including permits and other requirements under RCRA and CHWA, subject to CDPHE regulation; and (3) hazardous substance and hazardous constituent removal, decommissioning and site remediation under applicable environmental laws and requirements, including CERCLA, CHWA, and RCRA, subject to EPA and CDPHE regulation. RFETS is now dedicated primarily to DOE waste management, environmental cleanup, and restoration activities, regulated by EPA and CDPHE. In making the transition from operational facilities, through deactivation, decommissioning, and environmental restoration, to materials storage and post-closure care, the regulatory and oversight entities must cooperate to make a smooth transition while maintaining adequate protection of the environment, safety, and health. Under this MOU, DOE will be subject to lead regulation or oversight by one of the three regulatory or oversight entities for each activity at RFETS covered by this MOU.

A primary regulatory or oversight entity shall be selected from EPA, CDPHE or DNFSB and shall:

1. Fully execute its statutory responsibilities for regulation and oversight of DOE activities in a manner consistent with the roles ascribed to other entities in this MOU, to the extent allowed by law.
2. Investigate, evaluate, review, or inspect DOE facilities, and activities, as appropriate, and consult with the

secondary entities regarding the evaluation, review, or inspection. Representatives of the other two entities may be present during evaluations or inspections and shall be entitled to share resulting inspection/evaluation information subject to the requirements of law, including those laws governing classified national security information, restricted data, and unclassified, controlled nuclear information. Review and concurrence will be sought by the primary entity from secondary entities with jurisdiction over aspects of an activity or material. In areas of expertise, entities with review and comment authority will consult, at their discretion, with the primary entity and offer appropriate comment on environmental, health, and safety issues.

3. Interact with DOE as the point of contact on behalf of all entities having responsibilities for regulation or oversight of a given activity or material. For example, the primary entity shall incorporate into its own review and findings, where appropriate, concerns or results submitted by secondary entities monitoring the activity; the primary entity shall resolve with DOE findings or concerns by the secondary entities.
4. Consult with the secondary entity or entities prior to reviews, evaluations, or inspections to ensure that the requirements imposed on, and proposals made to, DOE for any given activity.
 - a. represent the complete set of requirements and corrective actions necessary for statutory compliance by DOE for protection of the health and safety of workers and the public and protection of the environment;
 - b. avoid duplication of effort by DOE or the primary entity;
 - c. are based upon those necessary for statutory compliance (which is not to say that DOE cannot voluntarily commit to activities which exceed minimum statutory requirements);
 - d. do not impose conflicting requirements; and
 - e. are, to the extent practicable, agreed upon by the primary and any secondary entities prior to commencement of work affected by the requirements and recommendations.
5. Review, with the secondary entity or entities, plans "up front" to ensure that requirements imposed on, and corrective actions proposed to, DOE meet the above criteria, with the goal being that activities subject to concurrent regulatory or oversight jurisdiction are not delayed by belated disagreements among the primary and secondary entities over the set of requirements to be imposed, or how those requirements are to be implemented.
6. Provide a smooth transition of regulatory or oversight leadership as activities in RFETS facilities shift from one phase or life cycle to another. The primary entity, in consultation with the entity which will become the primary entity after the transition, will determine when a particular activity or phase has been completed.

V. RESPONSIBILITIES OF A SECONDARY ENTITY

This MOU designates primary and secondary entities in those areas where the parties jointly have legal responsibilities to oversee or regulate the same RFETS activity. However, to the extent allowed by law, the secondary entity shall seek to execute its regulatory and oversight responsibilities by working with the primary entity for the particular activity and materials involved. (See [Figure 1](#).) This cooperation is necessary to facilitate one of the most important purposes of this MOU: to provide DOE with a single coordinating regulatory or oversight entity for environmental, safety, and health regulation/oversight of each activity covered by this MOU. Secondary entities may not abdicate their statutory obligation to oversee/regulate activities within their jurisdiction. The dispute resolution and reserved authority clauses of this MOU may be invoked under the circumstances described in section VIII to resolve issues between the primary and secondary entities.

Secondary entities will either review the activities of primary entities and concur with those activities, or they will review and comment on those activities.

- Review and concurrence connotes the step a primary entity will take in seeking concurrence from a secondary entity, within its area of jurisdiction, over aspects of a regulatory or oversight action. Lack of concurrence indicates a need for further consultation between primary and secondary entities, but does not constitute a veto of the primary entity's proposed activity. A non-concurring secondary entity that cannot resolve its concerns through consultation with the primary entity shall initiate the dispute resolution process if required by section VIII of this MOU.
- Review and comment authority means that, in areas of expertise, secondary entities may, at their discretion, consult with the primary entity and offer appropriate comment on environmental, health, and safety issues.

VI. IDENTIFICATION OF THE PRIMARY ENTITY FOR VARIOUS ACTIVITIES AT ROCKY FLATS

A. SCOPE OF MOU COVERAGE

This MOU applies to activities in the area termed "the Industrial Area" at RFETS, both within buildings and in the environment directly associated with RFETS facilities. Many of these activities, depending on their nature, fall within the jurisdiction of one or more regulatory or oversight entities, as shown in [Figure 1](#). For example, DOE maintains temporary storage of plutonium pits, uranium, and other defense materials, subject to DNFSB oversight, in certain facilities pending a decision on their final disposition. A small number of plutonium operations buildings will be utilized for stabilization of plutonium residues prior to final disposition of those residues, also subject to DNFSB oversight. Other buildings and equipment are used for the treatment, storage, and disposal of RCRA hazardous wastes, transuranic mixed waste, and other mixed RCRA waste containing both hazardous and radioactive waste. These activities are subject to CDPHE regulation, and mixed waste also is subject to DNFSB oversight. Portions of RFETS are contaminated from releases of hazardous substances and are regulated under the removal and remedial action provisions of CERCLA and the closure and corrective action provisions of RCRA/CHWA, subject to EPA and CDPHE regulation, as appropriate. The Rocky Flats Cleanup Agreement (RFCA) will address specific authority for environmental restoration.

B. ENTITY ROLES

The following designations identify the entity that will serve as the primary regulatory/oversight entity for various activities at facilities scheduled to be decommissioned at RFETS. These designations are displayed in [Figure 1](#). Figure 1 also specifies subsidiary roles of secondary entities.

In general, CDPHE has primary regulatory responsibility for hazardous waste treatment, storage, and disposal facilities at RFETS, pursuant to its RCRA/CHWA legal requirements. That responsibility includes regulation of hazardous waste and the hazardous component of mixed waste.

DNFSB has primary responsibility for temporary safe storage of plutonium pits, uranium, and other AEA special nuclear materials which are not waste, as well as low level radioactive waste, until final

disposal; safety of plutonium and other SNM operations necessary to stabilize residues or to deactivate a facility; safe final disposition of SNM; and deactivation and decommissioning under the AEA of defense nuclear facilities that are not being operated pursuant to RCRA/CHWA treatment, storage or disposal permit. Within this context, DNFSB is responsible for determining whether DOE and its contractors are in compliance with all applicable DOE safety Orders, rules, and other requirements pertaining to nuclear safety at defense nuclear and nuclear storage facilities pursuant to the AEA. See 42 U.S.C. § 2286a(a). Under the RFCA, CDPHE has the lead for "decommissioning" activities subsequent to deactivation in accordance with the May 22, 1995 DOE/EPA Policy Statement.

EPA retains authority for final selection of remedial alternatives under CERCLA and will be the secondary entity for decommissioning activities where CDPHE is the designated primary entity.

Roles as primary or secondary entities for activities at a given facility, or for a given material, will change as the nature of the hazard or use changes during various phases such as deactivation, cleanup, etc. This MOU provides for a smooth transition of regulatory or oversight responsibilities through these phases. Even though facilities and materials have passed through a given phase, exigencies can result in a return to a prior phase. This could occur, for example, if a facility were decontaminated and all hazardous materials were removed, but later, radioactive materials were introduced for storage. Entity roles would then revert back to those appropriate for the new facility activity.

1. DOE

DOE manages and directs all Departmental and contractor activity at RFETS. DOE also has authority for regulation of production and utilization of source, special nuclear, and byproduct material under the AEA, subject to DNFSB oversight. DOE has lead agency authority for response action related to releases or threats of releases of hazardous substances under CERCLA and Executive Order 12580, subject to EPA regulation. However, for purposes of this MOU, DOE and its contractor will be considered the regulated entity.

2. CDPHE

- a. CDPHE will be primary entity, as shown in [Figure 1](#), for the following activities:
 1. Regulation, oversight, and enforcement of RCRA and CHWA legal requirements for mixed waste (including generation, storage, treatment and disposal), with DNFSB review and concurrence for matters within its jurisdiction. (DNFSB involvement in this area will be limited to review and comment during decontamination of residual contamination of fixed structures, dismantlement, and demolition.) DNFSB technical comments may be incorporated, as appropriate, into applicable orders and permits, if consistent with applicable statutory authority and regulations, and existing permits and orders will be checked for consistency with DNFSB recommendations and resulting DOE commitments.
 2. As provided in the RFCA, regulation or oversight of decontamination and decommissioning of fixed structures and equipment, dismantlement, demolition, and closure of RCRA treatment, storage and disposal units, with DNFSB review and comment.
 3. Regulation of RCRA hazardous waste where not mixed with radioactive waste.
 4. Oversight of LLW and regulation of low-level mixed waste disposal onsite or elsewhere in the State

of Colorado.

5. Regulation of RCRA corrective actions and lead oversight of CERCLA response actions, as provided in the RFCA, with DNFSB review and comment regarding radioactive components of the waste, and consistent with DOE lead entity authority under Executive Order 12580 and the RFCA.
- b. CDPHE will be a secondary entity, as shown in [Figure 1](#), for:
1. Review and comment to DNFSB on operations, processing, storage, on-site transport, decontamination (not associated with decommissioning), deactivation (including removal of stored SNM and contained materials and waste), and disposal activities for radioactive materials, including SNM, TRU, and byproduct materials, except that CDPHE will review and concur on final disposition activities which occur in the State of Colorado.
 2. Review and concur with DNFSB on operations, processing, storage, on-site transport, decontamination (not associated with decommissioning), and deactivation (including removal of SNM, stored and contained materials, and waste) activities for LLW.

3. DNFSB

- a. DNFSB will be primary entity, as shown in [Figure 1](#), for the following activities:
1. Determination that public health and safety are adequately protected prior to the Secretary of Energy's resumption of SNM operation in plutonium buildings at RFETS. See section 3133 of Public Law 102190, the National Defense Authorization Act for FY 1992-93 (Dec. 5, 1991).
 2. Storage of source, special nuclear and byproduct materials as defined by 42 U.S.C.A. §§ 2014(e), (z) and (aa) ("AEA materials") which are not waste or mixed with a hazardous waste, with CDPHE review and comment to the extent authorized by the AEA and other criminal and civil provisions of law governing the disclosure of classified national security information, restricted data, and unclassified controlled nuclear information.
 3. The safe final disposition of AEA special nuclear material.
 4. Storage of high level, TRU, low level, and other non-mixed AEA radioactive waste not subject to NRC licensing. The Board also has concurrent oversight responsibility for storage of radioactive waste mixed with hazardous waste. See 3.b.(l) below.
 5. Processing and deactivation operations involving AEA materials that are not mixed with hazardous waste, including for example, stabilization of stored special nuclear material residues or chemical separation of special nuclear materials from residues remaining in process systems.
 6. (6)Deactivation and removal of SNM, AEA materials, and non-mixed AEA wastes which are stored or contained inside defense nuclear facility buildings. DNFSB's primary role will terminate once systems, structures and components have been decontaminated of radioactive materials to a level that does not constitute an undue risk to the health and safety of workers and the public. (See [Figure 1](#): the bold horizontal line separating deactivation and disposal activities from "decommissioning" as defined by the DOE/EPA May 22, 1995, Policy Statement.)
- b. DNFSB will be secondary entity, as shown in [Figure 1](#), for the following activities:
1. Review and concur on operations and processing, storage, deactivation, decontamination, and disposal activities involving the hazards and risks associated with the radioactive component of mixed waste.
 2. Review and comment on activities involving cleanup of radioactive materials in the environment, when requested.
 3. Review and comment on the final disposition of low level radioactive waste, if in the State of Colorado.

4. Review and comment on activities involving the decontamination of residual contamination of fixed structures for all radioactive and mixed wastes.
5. Review and comment on activities involving dismantlement and demolition related to all radioactive and mixed wastes.

4. EPA

- a. EPA retains authority for final selection of remedial alternatives under CERCLA, consistent with Executive Order 12580, as shown in [Figure 1](#).
- b. EPA may, within its discretion, provide review and comment to CDPHE, as appropriate, within areas of its expertise and jurisdiction. See [Figure 1](#).

VII. INTEGRATION OF ONGOING ACTIVITIES

An extraordinary number of ongoing environmental, safety, and health activities are being conducted at RFETS which must be integrated with the protocols of this MOU. For example, many facilities are subject to regulation under RCRA and CHWA. Cleanup is being conducted pursuant to CERCLA, RCRA, and CHWA. There are extant court decisions and consent orders which must be complied with. The Board has issued a number of Recommendations, including 94-1 on stabilization of SNM materials and 94-2 on low level waste, which apply to RFETS activities. Integration of these activities will require extensive effort by DOE and the regulatory/oversight entities immediately upon execution of this MOU. To a degree, however, these pre-existing environmental, safety and health requirements and activities were significant factors in the selection of the primary regulatory/oversight entities.

VIII. DISPUTE RESOLUTION

Conflicts can occur when a "secondary" entity has reason to believe that its interests are not adequately represented by a primary entity. This could occur, for example, if a party to the agreement alleges that DOE or its contractor has not complied with environment, safety, and health requirements and standards adopted by DOE, and accepted by the primary and secondary entities.

Should a conflict occur, a secondary entity shall work expeditiously with the primary entity to resolve the conflict, and not bypass the primary entity to resolve the conflict with DOE unless the conflict, if not quickly resolved, would result in an imminent threat to worker or public health and safety, an emergency, or a large expenditure of resources if resolution is delayed. In this event, the secondary entity may bring the matter directly to the attention of appropriate DOE personnel.

With the exception of imminent threats to safety and the potential for wasted resources discussed above, a secondary entity shall bring a conflict to the attention of the primary entity's representative for the activity. Where possible, the representative shall resolve the conflict with minimal impact on the activity. If resolution at the representative level is not possible, the next higher level of management shall address and resolve the conflict or elevate the conflict to the next level of management. If the secondary entity determines that the conflict is not being addressed adequately, it shall notify the primary entity that the secondary entity intends to request DOE to participate in the resolution.

If DOE does not resolve a problem to the satisfaction of the primary or secondary entity, either entity may take

the lead in resolving the problem through use of its independent regulatory or oversight authority subject to the dispute resolution clause of the RFCA in the case of EPA or CDPHE. All disputes shall be resolved within thirty days with the primary entity, or the secondary entity may exercise its reserved authority.

IX. RESERVED STATUTORY AUTHORITY

CDPHE administers hazardous waste permits, compliance, and other programs under RCRA, CHWA, and CERCLA. By statute, the Defense Nuclear Facilities Safety Board must recommend to the Secretary of Energy, or the President in appropriate circumstances, those measures necessary to adequately protect public health and safety at defense nuclear facilities. Each of the entities, including DOE, has a statutory obligation to respond to emergencies or severe or imminent threats to public health, safety, and the environment. EPA and DOE (and, where authorized by EPA, CDPHE), under CERCLA, must respond to hazardous substance releases or substantial threats of release which constitute an imminent and substantial endangerment. DNFSB under the AEA must take action on imminent or severe threats to public health and safety, and CDPHE must take action to protect the health and safety of its citizens from emergencies. Nothing in this MOU shall be construed to restrain an entity from taking appropriate action under its organic or other applicable statutes, including actions based on the entity's judgments regarding its resources and priorities. Moreover, in the event a dispute cannot be resolved by resort to the resolution process specified by the previous provision, a secondary entity may exercise any of its statutory regulatory or oversight authorities.



**DEPARTMENTAL AND AGENCY ROLES AND RESPONSIBILITIES
FOR ACTIVITIES IN THE INDUSTRIAL AREA AT RFETS**

DOE DIRECTS AND MANAGES ALL ACTIVITIES AT RFETS						
MATERIAL/ WASTE ACTIVITY	RADIOACTIVE MATERIALS SNM, TRU, Byproduct	LOW LEVEL RADIOACTIVE WASTE	SOLID/LIQUID MIXED TRU WASTE (RCRA Waste)	LOW LEVEL MIXED WASTE (RCRA waste)	HAZARDOUS AND SOLID WASTE	† CERCLA/RCRA MATERIALS IN ENVIRONMENT
Operations and Processing	DNFSB Primary CDPHE Review and Comment	DNFSB Primary CDPHE Review and Concur	CDPHE Primary DNFSB Review and Concur	CDPHE Primary DNFSB Review and Concur	CDPHE Primary	CDPHE Primary
Storage, On-Site Transport, and Decontamination (unassociated with decommissioning)	DNFSB Primary CDPHE Review and Comment	DNFSB Primary CDPHE Review and Concur	CDPHE Primary DNFSB Review and Concur †	CDPHE Primary DNFSB Review and Concur	CDPHE Primary	CDPHE Primary
Deactivation including removal of SNM stored and contained materials and waste	DNFSB Primary CDPHE Review and Comment	DNFSB Primary CDPHE Review and Concur	CDPHE Primary DNFSB Review and Concur	CDPHE Primary DNFSB Review and Concur	CDPHE Primary	CDPHE Primary
Final disposition, or disposal within Colorado	DNFSB Primary CDPHE Review and Comment ††	CDPHE Primary DNFSB Review and Concur	CDPHE Primary DNFSB Review and Concur	CDPHE Primary DNFSB Review and Concur	CDPHE Primary	CDPHE Primary
Decontamination of residual contamination of fixed structures	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment	CDPHE EPA Review and Comment
Dismantlement and Demolition	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment DNFSB Review and Comment	CDPHE Primary EPA Review and Comment	CDPHE EPA Review and Comment

Decommissioning
(DOE/EPA Policy)

† EPA retains final signature authority on the "record of decision" for final selection of remedial alternative, and DNFSB provides comment in areas of expertise upon request.
 †† Review and Concur if final disposition or disposal is in the State of Colorado.
 ‡ DNFSB has statutory oversight responsibility for nuclear waste storage. 43 U.S.C. § 2286g(2).

Legend:

CDPHE Primary
EPA Secondary
DNFSB Secondary

CDPHE Primary
DNFSB Secondary

DNFSB Primary
CDPHE Secondary

Figure 3