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Distribution			Abstract		
*	Name	Mail Addr.		In December, 1998, 10 CFR 835 (Occupational Radiation Protection) was amended. These amendments changed certain regulatory requirements, which require modifications to the Rocketdyne Radiation Protection Program. This document describes the plans for the incorporation of these amendments into the Rocketdyne Radiation Protection Program. It provides a detailed discussion of the Rocketdyne Radiation Protection Program, describes the changes to the Program, and provides schedules and timelines for these updates.	
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1.0 General Information

The former Energy Technology Engineering Center (ETEC) is located in the Santa Susana Mountains near Chatsworth, California (on the extreme northwestern corner of the San Fernando Valley). It is operated on land leased from Rocketdyne Propulsion and Power (a part of The Boeing Company). It is in Area IV of the Santa Susana Field Laboratory.

Over a period of approximately 30 years, the site was used for the testing of various nuclear fuel components and power reactor prototypes for space vehicles. It was also associated with the Rockwell International Hot Laboratory (RIHL), where fuel decladding and performance evaluations were performed. All nuclear operations at the site were terminated in the late 1980's. The only radiological activities now occurring at the site are decontamination and decommissioning of radiological facilities.

The Rocketdyne Radiation Safety department (a section of Safety, Health and Environmental Affairs) provides oversight of ETEC remediation activities. Rocketdyne holds a Broad Scope "A" license from the State of California. Additionally, it oversees an extensive industrial X-radiography program associated with Rocketdyne's core business of building Atlas/Delta and Space Shuttle rocket engines. Rocketdyne performs these activities under a cost plus incentive fee contract with the Department of Energy; it is *not* a Maintenance and Operations contractor.

During its operational years, DOE-NE served as the facility landlord. Currently, DOE-EM is the acting landlord of the site. Operational oversight is provided by DOE-OAK.

ETEC remediation currently employs approximately 150 personnel, of whom about 60 are routinely associated with radiological operations.

2.0 Compliance Status

This Radiation Protection Plan (RPP) describes the status of the Rocketdyne radiation protection program relative to the amendments to 10 CFR 835 promulgated in December, 1998. ETEC implemented the initial version of 10 CFR 835 in 1994. It is in full compliance with the provisions of the current version. ETEC Site Closure has an exception under DOELAP for external dosimetry. It intends to apply for and obtain exception from DOELAP for internal dosimetry. Under the previous RPP, ETEC had an exemption for testing of personnel taking General Employee Radiological Training (GERT). This exemption is unnecessary under the revised regulations, as direct references to GERT were eliminated.

10 CFR 835 was amended in December, 1998. Rocketdyne believes that it is complying with the regulations as amended. During a review by DOE-OAK, several procedural clarifications were identified. Rocketdyne will address these issues as discussed in the RPP. Rocketdyne's

assessment of its compliance status is listed in the RPP text for each regulation. At this time, Rocketdyne does not believe it needs any exemptions to the amended regulations. Because of the limited nature of remaining decontamination and decommissioning work, Rocketdyne will have a reducing need for a bioassay program. Accordingly, it intends to pursue an exception to the DOELAP accreditation for radiobioassay under the provisions of the DOELAP program.

Rocketdyne's program is described in the Canoga Park System of Procedures (SOP). These procedures have been reviewed by DOE-OAK, and are currently undergoing revision. It is anticipated that these revisions will be completed and the changes fully implemented within 180 days of the date of approval of this RPP. In many cases, the program has been operating in compliance with the regulations; the procedure changes were needed to clarify instructions or other administrative issues. In some cases, the procedure changes were needed in order to implement substantially new program requirements.

A matrix of regulations and Rocketdyne's assessment of compliance is provided as Attachment B to the RPP. This matrix presents those sections of 10 CFR 835 where Rocketdyne has determined that additional preparatory steps are required.

3.0 Funding Requirements

The amendments to 10 CFR 835 have greatly clarified and simplified the regulations. As Rocketdyne now has five years of operating experience under the regulations, it does not anticipate needing additional funding for implementation of the amendments. This statement assumes that DOE accepts the enclosed RPP with no major changes. Rocketdyne reserves the right to reassess the financial impacts of implementation of any changes proposed or mandated by the DOE prior to implementation.

4.0 Activities, Milestones, Prioritization

Rocketdyne believes that it is substantially in compliance with the proposed amendments to the regulations. While revision of procedures has been undertaken, these amendments are minor in nature, and do not constitute a fundamental change in the program. This statement assumes that exceptions to DOELAP for Internal Dosimetry are forthcoming. If Rocketdyne is directed to implement a DOELAP certified internal dosimetry program, then it will be necessary to prepare an implementation plan for that activity, and additional funding will be needed.

Needed procedure and program changes for implementation of the regulations are discussed (with schedules) in the Implementation Requirements section of the § 835.101(f) discussion.

5.0 Tracking

Radiation Safety has compiled the project's Radiation Protection Plan using a MicroSoft Access database derived from the DOE-provided Radiation Protection Requirements Implementation Management System (RPRIMS). The original RPRIMS was used to manage the implementation of the original Radiation Protection Plan. This Access system will now be used to track the compliance status of the amended 10 CFR 835.

Additional scheduling and planning may be implemented on an as-needed basis. For intricate implementation projects, Radiation Safety uses PERT-based scheduling software. For simpler situations, a number of less sophisticated avenues of tracking are available.

6.0 ALARA Program

Radiation Safety operates a program following the paradigm used by the State of California on its licensees. As a Broad Scope "A" licensee, Rocketdyne has received permission from the State to perform a broad range of activities involving radioactive materials and ionizing radiation. It is required by the State to maintain a program of radiation protection under the guidance of a Radiation Safety Officer and a Radiation Protection Committee.

The activities included under this RPP are listed in the Compliance Statement of § 835.101(d). At this writing, Rocketdyne has successfully decontaminated and released twenty-five radiological facilities at the Santa Susana Field Laboratory. Three major radiological facilities remain to be decommissioned, of which one project is about one-half completed. In addition, Rocketdyne has been conducting area surveys intended to confirm the status of several areas released in earlier decades. Also anticipated is a site survey by contractors to the United States Environmental Protection Agency. It is anticipated that all radiological work will be completed by 2006, given that there are no changes in the current regulatory arrangements or that the scope of work is not significantly changed.

Rocketdyne controls radiological activities (including ETEC Site Closure activities) under a system of Use Authorizations. These authorizations grant permission to Principal Users to conduct radiological operations. These operations are defined and the parameters of acceptable practices are established by the Use Authorization. Each authorization is reviewed and approved by the Radiation Safety Officer and the Manager, Radiation Safety. Each authorization is reviewed on a nominally annual basis by the Radiation Safety Committee.

Each authorization is evaluated on its potential exposure impact for workers and members of the public. For activities of restricted scope, this review is performed by the Radiation Safety Officer. For more complex activities with significant radiological impact, Rocketdyne procedures require formal proceduralization and review for ALARA impact. A Controlled Work

Permit program is usually implemented for these projects to permit ongoing review and control of the daily tasks by a facility/project health physicist.

Three levels of administrative exposure limits are established to serve as guidance for the worker and for RP staff. Each of these limits triggers a sequentially more formal investigative response from Radiation Safety, from informal inquiry to suspension of the authorization and a formal investigation.

Personnel exposure from projects involving significant radiological impact is compiled on a periodic basis (usually weekly). This permits an ongoing determination of radiation exposure to permit proper control of personnel exposure. All personnel exposure data is computerized for quick access. It should be noted, however, that due to the reduction in source term at the site, personnel exposures are anticipated to remain at a relatively low level for the remainder of the project.

7.0 Radiation Protection Program Detailed Discussions

Attachment A provides an analysis of Rocketdyne's compliance with the amended regulations. This document provides the cited reference, the regulatory language, Rocketdyne's compliance statement and any clarifications, a description of any needed actions to achieve compliance or to improve the level of compliance, a statement of the compliance status of the cited regulation, and a cross-reference to the pertinent Rocketdyne procedure(s).

In general, Rocketdyne considers that it is currently in compliance with the amended regulations. Where this compliance is conditional upon site-specific situations, the compliance statement will note the circumstances of the limiting conditions. Where additional actions have been identified as being necessary, the actions are described in the section on Implementation Requirements.

References to the Canoga Park System of Procedures (SOP) are provided for each substantive regulatory section. These procedures describe Rocketdyne's radiation protection processes. SOP C-401, *Radioactive Materials and Ionizing Radiation* is the main program document. There are nine guidance documents (GUIDES) that are associated with this document. These are:

- GUIDE C-401.001, *Radiological Safety Policies*
- GUIDE C-401.002, *Radiological Standards*
- GUIDE C-401.003, *Conduct of Radiological Work*
- GUIDE C-401.004, *Radioactive Materials*
- GUIDE C-401.005, *Radiological Health Support Operations*
- GUIDE C-401.006, *Training and Qualification*
- GUIDE C-401.007, *Radiological Records*
- GUIDE C-401.008, *Radiological Glossary*

GUIDE C-401.009, *Radiation Safety Requirements for X-radiographic Operations*

In addition, reference is made to SOP C-405, *Receipt of Radioactive Packages*. This SOP is currently undergoing review and approval.

Attachments C and D contain cross-references of pertinent sections of Rocketdyne procedures relating to 10 CFR 835. DOE-OAK has reviewed these procedures and has identified several sections that need clarification or revision. Those procedures requiring revisions have been identified and a schedule for updating the procedures has been provided in § 835.101(f).

Provision of this information is not to be construed that Rocketdyne is implementing these procedures into the RPP by reference or citation. Rocketdyne recognizes, however, that these procedures are auditable under the provisions of 10 CFR 830.

These procedures are working documents, and may be revised from time to time. If these procedural revisions are determined to decrease the effectiveness of implementation of 10 CFR 835 (as described in the Radiation Protection Plan), approval from DOE will be obtained (and the RPP revised) prior to implementation (See 835.101(h)). Changes that do not directly affect compliance to 10 CFR 835 will be implemented through Rocketdyne's normal business practices.

Attachment E is a listing of the review comments made by DOE-OAK. Rocketdyne's responses are included. Attachment F a compilation of review comments by DOE-EM with Rocketdyne responses.

Attachment A

Detailed References for the Site Closure of the former Energy Technology Engineering Center (ETEC)

10 CFR 835 Citation: § 835.1

Regulatory Text: Scope.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1 (a)

Regulatory Text: General. The rules in this part establish radiation protection standards, limits, and program requirements for protecting individuals from ionizing radiation resulting from the conduct of DOE activities.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: SOP C-401

Section: Purpose

10 CFR 835 Citation: § 835.1 (b)
Regulatory Text: Exclusion. Except as discussed in paragraph (c) of this section, the requirements in this part do not apply to:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1 (b) (1)

Regulatory Text: Activities that are regulated through a license by the Nuclear Regulatory Commission or a State under an Agreement with the Nuclear Regulatory Commission, including activities certified by the Nuclear Regulatory Commission under section 1701 of the Atomic Energy Act;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: N/A

SOP Document: GUIDE C-401.001

Section: Part 5

10 CFR 835 Citation: § 835.1 (b) (2)

Regulatory Text: Activities conducted under the authority of the Director, Naval Nuclear Propulsion Program, as described in Public Law 98-525;

Compliance: Rocketdyne conducts no operations under the auspices of the Naval Nuclear Propulsion Program.

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1 (b) (3)

Regulatory Text: Activities conducted under the Nuclear Explosives and Weapons Surety Program relating to the prevention of accidental or unauthorized nuclear detonations.

Compliance: Rocketdyne conducts no operations under the auspices of the Nuclear Explosives and Weapons Surety Program.

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1 (b) (4)
Regulatory Text: Radioactive material transportation as defined in this part;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Site transfers of radioactive materials are not over public highways, and are controlled by Rocketdyne internal procedures.

Implementation Requirements:

Compliance Status: N/A
SOP Document: GUIDE C-401.004
Section: 423

10 CFR 835 Citation: § 835.1 (b) (5)
Regulatory Text: DOE activities conducted outside the United States on territory under the jurisdiction of a foreign government to the extent governed by occupational radiation protection requirements agreed to between the United States and the cognizant government; or

Compliance: Rocketdyne conducts no DOE-related operations outside the United States.

Implementation Requirements:

Compliance Status: N/A
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1 (b) (6)
Regulatory Text: Background radiation, radiation doses received as a patient for the purposes of medical diagnosis or therapy, or radiation doses received from participation as a subject in medical research programs.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-1

10 CFR 835 Citation: § 835.1 (c)

Regulatory Text: Occupational doses received as a result of excluded activities and radioactive material transportation, as listed in paragraphs (b)(1) through (b)(5) of this section, shall be considered when determining compliance with the occupational dose limits at § 835.202 and § 835.207, and with the limits for the embryo/fetus at § 835.206. Occupational doses resulting from authorized emergency exposures and planned special exposures shall not be considered when determining compliance with the dose limits at § 835.202 and § 835.207.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-1

10 CFR 835 Citation: § 835.2 (a), (b), and (c)

Regulatory Text: Definitions.

Compliance: Rocketdyne accepts the definitions as promulgated in the regulations.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.008

Section: N/A

10 CFR 835 Citation: § 835.3

Regulatory Text: General rule.

Compliance:

Implementation Requirements:

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.3 (a)

Regulatory Text: No person or DOE personnel shall take or cause to be taken any action inconsistent with the requirements of:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: ---

SOP Document: SOP C-401

Section: General Requirements

10 CFR 835 Citation: § 835.3 (a) (1)

Regulatory Text: This part; or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 113

10 CFR 835 Citation: § 835.3 (a) (2)

Regulatory Text: Any program, plan, schedule, or other process established by this part.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 113

10 CFR 835 Citation: § 835.3 (b)

Regulatory Text: With respect to a particular DOE activity, contractor management shall be responsible for compliance with the requirements of this part.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-401

Section: General Requirements

10 CFR 835 Citation: § 835.3 (c)

Regulatory Text: Where there is no contractor for a DOE activity, DOE shall ensure implementation of and compliance with the requirements of this part.

Compliance: Rocketdyne is contracted to the DOE for the Site Closure of the former Energy Technology Engineering Center.

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.3 (d)

Regulatory Text: Nothing in this part shall be construed as limiting actions that may be necessary to protect health and safety.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 112

10 CFR 835 Citation: § 835.3 (e)

Regulatory Text: For those activities that are required by § 835.102, § 835.901(e), § 835.1202(a), and § 835.1202(b), the time interval to conduct these activities may be extended by a period not to exceed 30 days to accommodate scheduling needs.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

For clarification, the general subject of the citations are enumerated below:

§ 835.102: Internal Audits

§ 835.1202(a): Source Inventory

§ 835.1202(b): Leak Tests

§ 835.901(e): Bi-annual Re-training

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 113

10 CFR 835 Citation: § 835.4

Regulatory Text: Radiological units. Unless otherwise specified, the quantities used in the records required by this part shall be clearly indicated in special units of curie, rad, roentgen, or rem, including multiples and subdivisions of these units. The SI units, becquerel (Bq), gray (Gy), and sievert (Sv), are only provided parenthetically in this part for reference with scientific standards.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

In addition, for reporting of levels of contamination or other types of activity, Rocketdyne incorporates the commonly used unit of "disintegrations per minute" (dpm) in its internal documentation and reporting. The relation of "dpm" to other activity units are:

1 Becquerel = 60 dpm

1 pCi = 2.2 dpm

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Appendix 1D

10 CFR 835 Citation: § 835.101

Regulatory Text: Radiation protection programs.

Compliance:

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.101 (a)
Regulatory Text: A DOE activity shall be conducted in compliance with a documented radiation protection program (RPP) as approved by the DOE.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements: During the readiness review for the implementation of these regulations, several procedures required minor changes. The plans and schedules to address the needed changes are described in § 835.101(f).

Compliance Status: PAR
SOP Document: GUIDE C-401.001
Section: 114

10 CFR 835 Citation: § 835.101 (b)
Regulatory Text: The DOE may direct or make modifications to a RPP.
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.101 (c)

Regulatory Text: The content of each RPP shall be commensurate with the nature of the activities performed and shall include formal plans and measures for applying the as low as reasonably achievable (ALARA) process to occupational exposure.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 112

10 CFR 835 Citation: § 835.101 (d)

Regulatory Text: The RPP shall specify the existing and/or anticipated operational tasks that are intended to be within the scope of the RPP. Except as provided in § 835.101(h), any task outside the scope of a RPP shall not be initiated until an update of the RPP is approved by DOE.

Compliance: Rocketdyne is contracted to DOE to perform Site Closure of the former Energy Technology Engineering Center (ETEC) and periodically performs certain analytical tasks for DOE. The DOE has contracted Rocketdyne to perform specific tasks at a fixed cost with performance awards. Rocketdyne is no longer an M&O contractor for DOE. This RPP provides for all activities identified or implied under the scope of this contract arrangement. Should the contract be modified in the future, the RPP scope will be considered to be similarly modified without further notification or negotiation. In short, the RPP permits Rocketdyne to perform all activities necessary to meet the stipulations of its DOE contract(s).

In general, Rocketdyne's current DOE-related activities are:

- 1) Decontamination and decommissioning of radioactively contaminated facilities, equipment and grounds;
- 2) Volume reduction, packaging, and shipment of radioactive wastes;
- 3) Treatment and packaging of certain types of mixed hazardous wastes resulting from D&D operations.
- 4) Repair and calibration of radiation detection equipment.
- 5) Final surveys and release of previously contaminated facilities and grounds.
- 6) Radiological analysis laboratory facilities
- 7) Support operations for the above activities.

ETEC was the site of a number of facilities involved in the nuclear fuel cycle. No active operations utilizing the nuclear fuel cycle are now conducted at the site, nor are further fuel cycle

activities anticipated. Rocketdyne currently is decontaminating and decommissioning deactivated reactor facilities, laboratories, storage areas, and certain soil areas. Wastes from these projects are packaged and stored at Rocketdyne's Radioactive Materials Handling Facility (RMHF), or other locations on the ETEC site, pending shipment to DOE burial sites.

Rocketdyne continues to use small quantities of radioisotopes as check sources and as analytical spikes.

The former ETEC possesses, but does not use, several radiography cameras and sources. These cameras are currently stored in the Radioactive Materials Handling Facility, and are scheduled for disposal / recycling in the near future. Rocketdyne personnel will not conduct source radiography under this RPP, but may conduct X-radiography using field X-ray equipment. Rocketdyne will, from time to time, hire contract source radiographers to conduct field inspection of welds, piping, and other equipment. These operations will be conducted by organizations licensed by the State of California to perform this work. Stipulations will be placed in the radiographer's contracts that ensure compliance to the requirements of 10 CFR 835 while these operations are being conducted.

Rocketdyne operates an X-ray diffraction system for support of other DOE projects.

Rocketdyne is a potential participant in the Radiological Assistance Plan (RAP) Team for the Oakland Region. Personnel participating in a RAP activation are covered under this RPP, unless otherwise directed by DOE representatives.

Rocketdyne is currently licensed by the State of California as a Broad Scope "A" facility. Under this license, Rocketdyne is permitted to conduct a number of operations involving radioactive materials and ionizing radiation. Rocketdyne is currently reducing its scope of activities under this License.

Implementation

Rocketdyne has utilized California Title 17 as the pertinent body

Requirements: of regulations for contract radiographers. DOE has now taken a position that 10 CFR 835 would apply to these activities. Rocketdyne will implement these requirements as described in the schedule listed in § 835.0101 (f)

Compliance Status: PAR

SOP Document: GUIDE C-401.001

Section: 112

10 CFR 835 Citation: § 835.101 (e)

Regulatory Text: The content of the RPP shall address, but shall not necessarily be limited to, each requirement in this part.

Compliance: This RPP addresses each requirement of 10 CFR 835. The elements of the Rocketdyne System of Procedures (SOP) that are pertinent to the cited section of 10 CFR 835 are referenced.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 112

10 CFR 835 Citation: § 835.101 (f)

Regulatory Text: The RPP shall include plans, schedules, and other measures for achieving compliance with regulations of this part. Unless otherwise specified in this part, compliance with amendments to this part shall be achieved no later than 180 days following approval of the revised RPP by DOE. Compliance with the requirements of § 835.402(d) for radiobioassay program accreditation shall be achieved no later than January 1, 2002.

Compliance: In this submittal, Rocketdyne has provided the required timelines and schedules for compliance. Rocketdyne believes that it is substantially in compliance with the regulations at this time, and will be in full compliance with the remaining sections within 180 days of the revised RPP by DOE.

Regarding § 835.402(d), Rocketdyne has determined that it is very unlikely that any individual will meet or exceed 100 mrem CEDE in a year. Accordingly, it anticipates that it will seek an exception under the DOELAP program for radiobioassay accreditation. A timeline for this effort is included in the RPP submittal.

Regarding § 835.101(d), Rocketdyne needs to amend its policies regarding the use of contracted source radiographers at DOE facilities. An implementation schedule is provided.

The schedule for the updating of the radioactive material receipt procedure required by § 835.405 is provided.

**Implementation
Requirements:**

General Program Procedure Changes:

Rocketdyne identified several needed changes in its procedures in order to clarify certain administrative issues raised by the implementation of the amended regulations. Unless specifically called out in the discussion below, the schedule for these procedural changes is as follows:

- | | |
|---|---------------|
| 1) Procedure changes prepared in draft: | 1 Feb 2000 |
| 2) Procedure reviewed and approved: | 1 March 2000 |
| 3) Procedures distributed: | 15 March 2000 |
| 4) Procedures fully implemented: | 15 May 2000 |

DOELAP Exception

Rocketdyne has determined that it is unlikely that an individual will meet or exceed 100 mrem CEDE from normal work activities. Rocketdyne intends to request that it be excepted in accordance with the provisions of DOELAP policies (note that this is a different process than exemption under 10 CFR 835). While Rocketdyne believes that its program is in substantial compliance with DOELAP, it does not feel that limited future need for the program justifies the cost of obtaining such a certification. The schedule for the preparation of this request is as follows:

- 1) Prepare request for exception under DOELAP for Radiobioassay:
1 June 2000
- 2) Receive Approval / Disapproval for Exception:
30 September 2000

If the exception request is not approved, Rocketdyne will submit a schedule for DOELAP compliance at that time.

Implementation of Contract Radiographer Stipulations

Rocketdyne will utilize radiographers who possess a California license. DOE-OAK has taken the position that such operations are subject to 10 CFR 835. Rocketdyne will need to revise certain procedures and contract processes to formally incorporate these additional requirements.

- 1) Prepare procedure covering operations of contract radiographers working on DOE property or equipment: 1 April 2000
- 2) Amend current radiography services contracts to implement requirements of 10 CFR 835 for contract source radiography:
1 May 2000

Receipt of Radioactive Materials:

Rocketdyne receives radioactive materials at its DeSoto facilities. Certain procedures need to be updated to clarify the process to be used for the receipt of such material. The schedule is:

- 1) Complete review of procedure: 30 November 1999
- 2) Obtain Approval of procedure: 11 December 1999
- 3) Distribute Procedure: 23 December 1999
- 4) Full Implementation: 31 January 2000

Dose Reports to Individuals

Rocketdyne prepares its dose reports under California Code of Regulations Title 17. The requirements of CCR Title 17 and 10 CFR 835 are essentially equivalent. Additional language recognizing DOE and the former ETEC needs to be included in the report.

- 1) Amend dose report forms to include reference to DOE and ETEC:
24 December 1999
- 2) Implement new dose report forms: 1 January 2000

Compliance Status: PAR
SOP Document: GUIDE C-401.001
Section: 112

10 CFR 835 Citation: § 835.101 (g)

Regulatory Text: An update of the RPP shall be submitted to DOE:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 114

10 CFR 835 Citation: § 835.101 (g) (1)

Regulatory Text: Whenever a change or an addition to the RPP is made;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 114

10 CFR 835 Citation: § 835.101 (g) (2)
Regulatory Text: Prior to the initiation of a task not within the scope of the RPP; or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.001
Section: 114

10 CFR 835 Citation: § 835.101 (g) (3)
Regulatory Text: Within 180 days of the effective date of any modifications to this part.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.001
Section: 114

10 CFR 835 Citation: § 835.101 (h)

Regulatory Text: Changes, additions, or updates to the RPP may become effective without prior Department approval only if the changes do not decrease the effectiveness of the RPP and the RPP, as changed, continues to meet the requirements of this part. Proposed changes that decrease the effectiveness of the RPP shall not be implemented without submittal to and approval by the Department.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 114

10 CFR 835 Citation: § 835.101 (i)

Regulatory Text: An initial RPP or an update shall be considered approved 180 days after its submission unless rejected by DOE at an earlier date.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.102

Regulatory Text: Internal audits. Internal audits of the radiation protection program, including examination of program content and implementation, shall be conducted through a process that ensures that all functional elements are reviewed no less frequently than every 36 months.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 134

10 CFR 835 Citation: § 835.103

Regulatory Text: Education, Training and Skills. Individuals responsible for developing and implementing measures necessary for ensuring compliance with the requirements of this part shall have the appropriate education, training, and skills to discharge these responsibilities.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 142

10 CFR 835 Citation: § 835.104

Regulatory Text: Written Procedures. Written procedures shall be developed and implemented as necessary to ensure compliance with this part, commensurate with the radiological hazards created by the activity and consistent with the education, training, and skills of the individuals exposed to those hazards.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 115

10 CFR 835 Citation: § 835.201

Regulatory Text: RESERVED.

Compliance:

Implementation Requirements:

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.202
Regulatory Text: Occupational dose limits for general employees.
Compliance:
Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.202 (a)
Regulatory Text: Except for planned special exposures conducted consistent with § 835.204 and emergency exposures authorized in accordance with § 835.1302, the occupational dose received by general employees shall be controlled such that the following limits are not exceeded in a year:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Planned Special Exposures will NOT be permitted at Rocketdyne.

Implementation Requirements:

Compliance Status: N/A
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.202 (a) (1)
Regulatory Text: A total effective dose equivalent of 5 rems (0.05 sievert);
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.202 (a) (2)
Regulatory Text: The sum of the deep dose equivalent for external exposures and the committed dose equivalent to any organ or tissue other than the lens of the eye of 50 rems (0.5 sievert);
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.202 (a) (3)
Regulatory Text: A lens of the eye dose equivalent of 15 rems (0.15 sievert); and
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.202 (a) (4)
Regulatory Text: A shallow dose equivalent of 50 rems (0.5 sievert) to the skin or to any extremity.
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.202 (b)
Regulatory Text: All occupational doses received during the current year, except doses resulting from planned special exposures conducted in compliance with § 835.204 and emergency exposures authorized in accordance with § 835.1302, shall be included when demonstrating compliance with §§ 835.202(a) and § 835.207.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.202 (c)
Regulatory Text: Doses from background, therapeutic and diagnostic medical radiation, and participation as a subject in medical research programs shall not be included in dose records or in the assessment of compliance with the occupational dose limits.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.203
Regulatory Text: Combining internal and external dose equivalents.
Compliance:
Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.203 (a)
Regulatory Text: The total effective dose equivalent during a year shall be determined by summing the effective dose equivalent from external exposures and the committed effective dose equivalent from intakes during the year.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.203 (b)
Regulatory Text: Determinations of the effective dose equivalent shall be made using the weighting factor values provided in § 835.2.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Appendix 1B

10 CFR 835 Citation: § 835.204
Regulatory Text: Planned special exposures.

Compliance:

Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.204 (a)

Regulatory Text: A planned special exposure may be authorized for a radiological worker to receive doses in addition to and accounted for separately from the doses received under the limits specified in § 835.202(a), provided that each of the following conditions is satisfied:

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (a) (1)

Regulatory Text: The planned special exposure is considered only in an exceptional situation when alternatives that might prevent a radiological worker from exceeding the limits in § 835.202(a) are unavailable or impractical;

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (a) (2)

Regulatory Text: The contractor management (and employer, if the employer is not the contractor) specifically requests the planned special exposure, in writing; and

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (a) (3)

Regulatory Text: Joint written approval is received from the appropriate DOE Headquarters program office and the Secretarial Officer responsible for environment, safety and health matters.

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (b)

Regulatory Text: Prior to requesting an individual to participate in an authorized planned special exposure, the individual's dose from all previous planned special exposures and all doses in excess of the occupational dose limits shall be determined.

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (c)

Regulatory Text: An individual shall not receive a planned special exposure that, in addition to the doses determined in § 835.204(b), would result in a dose exceeding the following:

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (c) (1)
Regulatory Text: In a year, the numerical values of the dose limits established at § 835.202(a); and

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (c) (2)
Regulatory Text: Over the individual's lifetime, five times the numerical values of the dose limits established at § 835.202(a).

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (d)

Regulatory Text: Prior to a planned special exposure, written consent shall be obtained from each individual involved. Each such written consent shall include:

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section:- N/A

10 CFR 835 Citation: § 835.204 (d) (1)

Regulatory Text: The purpose of the planned operations and procedures to be used;

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section:- N/A

10 CFR 835 Citation: § 835.204 (d) (2)

Regulatory Text: The estimated doses and associated potential risks and specific radiological conditions and other hazards which might be involved in performing the task; and

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (d) (3)

Regulatory Text: Instructions on the measures to be taken to keep the dose ALARA considering other risks that may be present.

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (e)

Regulatory Text: Records of the conduct of a planned special exposure shall be maintained and a written report submitted within 30 days after the planned special exposure to the approving organizations identified in § 835.204(a)(3).

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.204 (f)

Regulatory Text: The dose from planned special exposures is not to be considered in controlling future occupational dose of the individual under § 835.202(a), but is to be included in records and reports required under this part.

Compliance: [Rocketdyne will not utilize Planned Special Exposures under this Radiation Protection Plan.]

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.205

Regulatory Text: Determination of compliance for non-uniform exposure of the skin.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.205 (a)

Regulatory Text: Non-uniform exposures of the skin from X-rays, beta radiation, and/or radioactive material on the skin are to be assessed as specified in this section.

Compliance: Non-uniform exposures of the skin from X-rays, beta radiation, and/or radioactive material on the skin ARE TO BE assessed as specified in this section.

NOTE:

Regulatory treatment of non-uniform exposures of the skin are not consistent between DOE and State of California regulatory environments. As Rocketdyne personnel may not be exclusively assigned to DOE facilities, in order to maintain consistent dose limits, any significant non-uniform exposure should be evaluated both by the DOE protocol described in this RPP, and by the NRC/State protocol described in USNRC Policy Statement, "Enforcement Policy Regarding Occupational Doses from "Hot Particles." [Federal Register. 31 July 1990. p. 31113]

Several scenarios exist where an individual could violate DOE non-uniform exposure regulations, yet satisfy NRC/State regulations (and vice versa). In these instances, the regulations of the specific facility's responsible regulatory agency shall be applied to personnel working in the facility. To maintain consistency in personnel exposure control, any non-uniform exposure (no matter under what agency's oversight it was received) should be evaluated against both DOE and non-DOE protocols. The exposure limits of a given facility shall then be applied against the responsible agency's assessment protocol, and an individual's access to radiological areas determined accordingly.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Appendix 1C

10 CFR 835 Citation: § 835.205 (b)
Regulatory Text: For purposes of demonstrating compliance with §
835.202(a)(4), assessments shall be conducted as follows:

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.205 (b) (1)

Regulatory Text: Area of skin irradiated is 100 cm² or more. The non-uniform
dose equivalent received during the year shall be averaged over
the 100 cm² of the skin receiving the maximum dose, added to
any uniform dose equivalent also received by the skin, and
recorded as the shallow dose equivalent to any extremity or skin
for the year.

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Appendix 1C

10 CFR 835 Citation: § 835.205 (b) (2)

Regulatory Text: Area of skin irradiated is 10 cm² or more, but is less than 100 cm². The non-uniform dose equivalent (H) to the irradiated area received during the year shall be added to any uniform dose equivalent also received by the skin and recorded as the shallow dose equivalent to any extremity or skin for the year. H is the dose equivalent averaged over the 1 cm² of skin receiving the maximum absorbed dose, D, reduced by the fraction f, which is the irradiated area in cm² divided by 100 cm² (i.e., $H = fD$). In no case shall a value of f less than 0.1 be used.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Appendix 1C

10 CFR 835 Citation: § 835.205 (b) (3)

Regulatory Text: Area of skin irradiated is less than 10 cm². The non-uniform dose equivalent shall be averaged over the 1 cm² of skin receiving the maximum dose. This dose equivalent shall:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Appendix 1C

10 CFR 835 Citation: § 835.205 (b) (3) (i)
Regulatory Text: Be recorded in the individual's occupational exposure history as a special entry; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Appendix 1C

10 CFR 835 Citation: § 835.205 (b) (3) (ii)
Regulatory Text: Not be added to any other shallow dose equivalent to any extremity or skin recorded as the dose equivalent for the year.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Appendix 1C

10 CFR 835 Citation: § 835.206
Regulatory Text: Limits for the embryo/fetus.

Compliance:

Implementation Requirements:

Compliance Status: --

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.206 (a)

Regulatory Text: The dose equivalent limit for the embryo/fetus from the period of conception to birth, as a result of occupational exposure of a declared pregnant worker, is 0.5 rem (0.005 sievert).

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-1

10 CFR 835 Citation: § 835.206 (b)
Regulatory Text: Substantial variation above a uniform exposure rate that would satisfy the limits provided in § 835.206(a) shall be avoided.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-1

10 CFR 835 Citation: § 835.206 (c)
Regulatory Text: If the dose equivalent to the embryo/fetus is determined to have already exceeded 0.5 rem (0.005 sievert) by the time a worker declares her pregnancy, the declared pregnant worker shall not be assigned to tasks where additional occupational exposure is likely during the remaining gestation period.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: 215

10 CFR 835 Citation: § 835.207

Regulatory Text: Occupational dose limits for minors. The dose equivalent limits for minors occupationally exposed to radiation and/or radioactive materials at a DOE activity are 0.1 rem (0.001 sievert) total effective dose equivalent in a year and 10% of the occupational dose limits specified at § 835.202(a)(3) and (a)(4).

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-1

10 CFR 835 Citation: § 835.208

Regulatory Text: Limits for members of the public entering a controlled area. The total effective dose equivalent limit for members of the public exposed to radiation and/or radioactive material during access to a controlled area is 0.1 rem (0.001 sievert) in a year.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-1

10 CFR 835 Citation: § 835.209
Regulatory Text: Concentrations of radioactive material in air.
Compliance:
Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.209 (a)
Regulatory Text: The derived air concentration (DAC) values given in appendices A and C of this part shall be used in the control of occupational exposures to airborne radioactive material.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.002
Section: Table 2-4

10 CFR 835 Citation: § 835.209 (b)

Regulatory Text: The estimation of internal dose shall be based on bioassay data rather than air concentration values unless bioassay data are:

Compliance: Rocketdyne complies with the intent of this requirement. Note, however, that based upon the anticipated work programs and past experience, Rocketdyne has determined that it is unlikely that any individual will meet or exceed 100 mrem CEDE in a year due to routine exposure. Accordingly, under the regulations, Rocketdyne is not required to conduct routine bioassay sampling. As bioassay sampling is not required under the regulations, bioassay data may not be available at all times. As a result, Rocketdyne will rely upon air sampling data to estimate internal exposures in these situations.

Rocketdyne will maintain a comprehensive air sampling program. In the event that an individual exceeds certain trigger levels (listed below), follow-up bioassay sampling will be conducted. The trigger levels are:

- 1) Greater than 4 DAC-hours in a specific event (10 mrem CEDE); or,
- 2) Greater than 10 DAC-hours in a calendar quarter (25 mrem CEDE); or,
- 3) Greater than 20 DAC-hours in a calendar year (50 mrem CEDE).

In the case that a trigger level is exceeded, then bioassay sampling will be conducted in order to more accurately determine the individual's internal dose.

Although Rocketdyne is below the regulatory level requiring bioassay sampling, for informational purposes, Rocketdyne may conduct bioassay sampling from time to time.

**Implementation
Requirements:**

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 521

10 CFR 835 Citation: § 835.209 (b) (1)
Regulatory Text: unavailable;
Compliance: [See discussion at § 835.0209 (b).]
Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 521

10 CFR 835 Citation: § 835.209 (b) (2)
Regulatory Text: inadequate; or
Compliance: [See discussion at § 835.0209 (b).]
Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 521

10 CFR 835 Citation: § 835.209 (b) (3)
Regulatory Text: internal dose estimates based on air concentration values are demonstrated to be as or more accurate.
Compliance: [See discussion at § 835.0209 (b).]
Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 521

10 CFR 835 Citation: § 835.401
Regulatory Text: General requirements.
Compliance:
Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.401 (a)
Regulatory Text: Monitoring of individuals and areas shall be performed to:
Compliance:
Implementation Requirements:

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.401 (a)
Regulatory Text: Demonstrate compliance with the regulations in this part;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.
Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 551

10 CFR 835 Citation: § 835.401 (a) (1)
Regulatory Text: Document radiological conditions;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 551

10 CFR 835 Citation: § 835.401 (a) (2)
Regulatory Text: Detect changes in radiological conditions;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 551

10 CFR 835 Citation: § 835.401 (a) (3)
Regulatory Text: Detect the gradual buildup of radioactive material;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 551

10 CFR 835 Citation: § 835.401 (a) (4)

Regulatory Text: Verify the effectiveness of engineering and process controls in containing radioactive material and reducing radiation exposure; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 551

10 CFR 835 Citation: § 835.401 (a) (5)

Regulatory Text: Identify and control potential sources of individual exposure to radiation and/or radioactive material.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 551

10 CFR 835 Citation: § 835.401 (b)

Regulatory Text: Instruments and equipment used for monitoring shall be:

Compliance:

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.401 (b) (1)

Regulatory Text: Periodically maintained and calibrated on an established frequency;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 562

10 CFR 835 Citation: § 835.401 (b) (2)

Regulatory Text: Appropriate for the type(s), levels, and energies of the radiation(s) encountered;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 562

10 CFR 835 Citation: § 835.401 (b) (3)

Regulatory Text: Appropriate for existing environmental conditions; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 562

10 CFR 835 Citation: § 835.401 (b) (4)
Regulatory Text: Routinely tested for operability.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 551

10 CFR 835 Citation: § 835.402
Regulatory Text: Individual monitoring.

Compliance:

Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.402 (a)
Regulatory Text: For the purpose of monitoring individual exposures to external radiation, personnel dosimeters shall be provided to and used by:

Compliance:

Implementation Requirements:

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.402 (a) (1)

Regulatory Text: Radiological workers who, under typical conditions, are likely to receive one or more of the following:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.402 (a) (1) (i)

Regulatory Text: An effective dose equivalent to the whole body of 0.1 rem (0.001 sievert) or more in a year;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 511

10 CFR 835 Citation: § 835.402 (a) (1) (ii)

Regulatory Text: A shallow dose equivalent to the skin or to any extremity of 5 rems (0.05 sievert) or more in a year;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 511

10 CFR 835 Citation: § 835.402 (a) (1) (iii)

Regulatory Text: A lens of the eye dose equivalent of 1.5 rems (0.015 sievert) or more in a year;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 511

10 CFR 835 Citation: § 835.402 (a) (2)

Regulatory Text: Declared pregnant workers who are likely to receive from external sources a dose equivalent to the embryo/fetus in excess of 10 percent of the applicable limit at § 835.206(a);

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 511

10 CFR 835 Citation: § 835.402 (a) (3)

Regulatory Text: Occupationally exposed minors likely to receive a dose in excess of 50 percent of the applicable limits at § 835.207 in a year from external sources;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 511

10 CFR 835 Citation: § 835.402 (a) (4)

Regulatory Text: Members of the public entering a controlled area likely to receive a dose in excess of 50 percent of the limit at § 835.208 in a year from external sources; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

[limit at § 835.208 (currently 0.1 rem X 50%) = 0.05 rem]

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 511

10 CFR 835 Citation: § 835.402 (a) (5)

Regulatory Text: Individuals entering a high or very high radiation area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 511

10 CFR 835 Citation: § 835.402 (b)
Regulatory Text: External dose monitoring programs implemented to demonstrate compliance with § 835.402(a) shall be adequate to demonstrate compliance with the dose limits established in subpart C of this part and shall be:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.402 (b) (1)

Regulatory Text: Accredited, or excepted from accreditation, in accordance with the DOE Laboratory Accreditation Program for Personnel Dosimetry; or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

[Rocketdyne possesses a DOELAP exception for external dosimetry.]

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 512

10 CFR 835 Citation: § 835.402 (b) (2)
Regulatory Text: Determined by the Secretarial Officer responsible for environment, safety and health matters to have performance substantially equivalent to that of programs accredited under the DOE Laboratory Accreditation Program for Personnel Dosimetry.

Compliance: [Rocketdyne possesses a DOELAP exception for external dosimetry. This section is not applicable.]

Implementation Requirements:

Compliance Status: N/A
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.402 (c)
Regulatory Text: For the purpose of monitoring individual exposures to internal radiation, internal dosimetry programs (including routine bioassay programs) shall be conducted for:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.402 (c) (1)

Regulatory Text: Radiological workers who, under typical conditions, are likely to receive a committed effective dose equivalent of 0.1 rem (0.001 sievert) or more from all occupational radionuclide intakes in a year;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Note, however, that due to the nature of the remaining work at the former ETEC facilities and based upon past experience, it has been determined that an individual is unlikely to meet or exceed 100 mrem CEDE in a year. Rocketdyne therefore would not be required to provide routine bioassay sampling under these conditions.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 521

10 CFR 835 Citation: § 835.402 (c) (2)

Regulatory Text: Declared pregnant workers likely to receive an intake or intakes resulting in a dose equivalent to the embryo/fetus in excess of 10 percent of the limit stated at § 835.206(a);

Compliance: Note, however, that Declared pregnant workers shall not be permitted to enter Airborne Radioactivity Areas, Contamination Areas, or High Contamination Areas without the permission of the Manager, Radiation Safety. Because of this restriction, it is unlikely that any female worker would exceed these guidelines.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section:- 521

10 CFR 835 Citation: § 835.402 (c) (3)

Regulatory Text: Occupationally exposed minors who are likely to receive a dose in excess of 50 percent of the applicable limit stated at § 835.207 from all radionuclide intakes in a year; or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Note, however, that minors shall not be permitted to enter Airborne Radioactivity Areas, Contamination Areas, or High Contamination Areas without the permission of the Manager, Radiation Safety. Because of this restriction, it is unlikely that any minor would exceed these guidelines.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 521

10 CFR 835 Citation: § 835.402 (c) (4)

Regulatory Text: Members of the public entering a controlled area likely to receive a dose in excess of 50 percent of the limit stated at § 835.208 from all radionuclide intakes in a year.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Note, however, that members of the public shall not be permitted to enter Airborne Radioactivity Areas, Contamination Areas, or High Contamination Areas without the permission of the Manager, Radiation Safety. Because of this restriction, it is unlikely that any member of the public would exceed these guidelines.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 521

10 CFR 835 Citation: § 835.402 (d)

Regulatory Text: Internal dose monitoring programs implemented to demonstrate compliance with § 835.402(c) shall be adequate to demonstrate compliance with the dose limits established in subpart C of this part and shall be:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 522

10 CFR 835 Citation: § 835.402 (d) (1)

Regulatory Text: Accredited, or excepted from accreditation, in accordance with the DOE Laboratory Accreditation Program for Radiobioassay; or

Compliance: Rocketdyne anticipates that its DOE-related activities will not require extensive internal dosimetry assessments as no worker is likely to exceed 0.1 rem in a year. Accordingly, it intends to pursue exception under DOE Laboratory Program for Radiobioassay.

Implementation Requirements:

Rocketdyne will request an exception under the DOELAP Radiobioassay program. The schedule and plan for this request is provided in § 835.0101 (f).

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 522

10 CFR 835 Citation: § 835.402 (d) (2)

Regulatory Text: Determined by the Secretarial Officer responsible for environment, safety and health matters to have performance substantially equivalent to that of programs accredited under the DOE Laboratory Accreditation Program for Radiobioassay.

Compliance: [Rocketdyne is pursuing an exception under DOELAP provisions.]

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 522

10 CFR 835 Citation: § 835.403
Regulatory Text: Air monitoring.
Compliance:
Implementation
Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.403 (a)
Regulatory Text: Monitoring of airborne radioactivity shall be performed:
Compliance:
Implementation
Requirements:

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.403 (a)
Regulatory Text: Where an individual is likely to receive an exposure of 40 or more DAC-hours in a year; or
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.
Implementation
Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.005
Section: 555

10 CFR 835 Citation: § 835.403 (a)

Regulatory Text: As necessary to characterize the airborne radioactivity hazard where respiratory protective devices for protection against airborne radionuclides have been prescribed.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 555

10 CFR 835 Citation: § 835.403 (b)

Regulatory Text: Real-time air monitoring shall be performed as necessary to detect and provide warning of airborne radioactivity concentrations that warrant immediate action to terminate inhalation of airborne radioactive material.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 555

10 CFR 835 Citation: § 835.404

Regulatory Text: [Reserved]

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.405

Regulatory Text: Receipt of packages containing radioactive material.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:* The procedures covering the receipt of material need to be clarified. The timeline and schedule for this is provided in § 835.101(f).

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.405 (a)

Regulatory Text: If packages containing quantities of radioactive material in excess of a Type A quantity (as defined at 10 CFR 71.4) are expected to be received from radioactive material transportation, arrangements shall be made to either:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (a) (1)

Regulatory Text: Take possession of the package when the carrier offers it for delivery; or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (a) (2)

Regulatory Text: Receive notification as soon as practicable after arrival of the package at the carrier's terminal and to take possession of the package expeditiously after receiving such notification.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (b)

Regulatory Text: Upon receipt from radioactive material transportation, external surfaces of packages known to contain radioactive material shall be monitored if the package:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (b) (1)
Regulatory Text: Is labeled with a Radioactive White I, Yellow II, or Yellow III label
(as specified at 49 CFR 172.403 and 172.436-440); or

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (b) (2)
Regulatory Text: Has been transported as low specific activity material (as
defined at 10 CFR 71.4) on an exclusive use vehicle (as defined
at 10 CFR 71.4); or

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (b) (3)

Regulatory Text: Has evidence of degradation, such as packages that are crushed, wet, or damaged.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (c)

Regulatory Text: The monitoring required by paragraph (b) of this section shall include:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (c) (1)

Regulatory Text: Measurements of removable contamination levels, unless the package contains only special form (as defined at 10 CFR 71.4) or gaseous radioactive material; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (c) (2)

Regulatory Text: Measurements of the radiation levels, unless the package contains less than a Type A quantity (as defined at 10 CFR 71.4) of radioactive material.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.405 (d)

Regulatory Text: The monitoring required by paragraph (b) of this section shall be completed as soon as practicable following receipt of the package, but not later than 8 hours after the beginning of the working day following receipt of the package.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-405
Section:

10 CFR 835 Citation: § 835.501

Regulatory Text: Radiological areas.

Compliance:

Implementation Requirements:

Compliance Status: --

SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.501 (a)

Regulatory Text: Personnel entry control shall be maintained for each radiological area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 331

10 CFR 835 Citation: § 835.501 (b)

Regulatory Text: The degree of control shall be commensurate with existing and potential radiological hazards within the area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 331

10 CFR 835 Citation: § 835.501 (c)
Regulatory Text: One or more of the following methods shall be used to ensure control:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.501 (c) (1)
Regulatory Text: Signs and barricades;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.501 (c) (2)
Regulatory Text: Control devices on entrances;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.501 (c) (3)
Regulatory Text: Conspicuous visual and/or audible alarms;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.501 (c) (4)
Regulatory Text: Locked entrance ways; or
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.501 (c) (5)
Regulatory Text: Administrative controls.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.501 (d)

Regulatory Text: Written authorizations shall be required to control entry into and perform work within radiological areas. These authorizations shall specify radiation protection measures commensurate with the existing and potential hazards.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003
Section: 322

10 CFR 835 Citation: § 835.501 (e)
Regulatory Text: No control(s) shall be installed at any radiological area exit that would prevent rapid evacuation of personnel under emergency conditions.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.502
Regulatory Text: High and very high radiation areas.

Compliance:

Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.502 (a)
Regulatory Text: The following measures shall be implemented for each entry into a high radiation area:

Compliance:

Implementation Requirements:

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.502 (a) (1)

Regulatory Text: The area shall be monitored as necessary during access to determine the exposure rates to which the individuals are exposed; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 334

10 CFR 835 Citation: § 835.502 (a) (2)

Regulatory Text: Each individual shall be monitored by a supplemental dosimetry device or other means capable of providing an immediate estimate of the individual's integrated deep dose equivalent during the entry.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 334

10 CFR 835 Citation: § 835.502 (b)

Regulatory Text: Physical controls. One or more of the following controls shall be used for each entrance or access point to a high radiation area where radiation levels exist such that an individual could exceed a deep dose equivalent to the whole body of 1 rem (0.01 sievert) in any one hour at 30 centimeters from the source or from any surface that the radiation penetrates:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (b) (1)

Regulatory Text: A control device that prevents entry to the area when high radiation levels exist or that, upon entry, causes the radiation level to be reduced below the level that defines a high radiation area;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (b) (2)

Regulatory Text: A device that functions automatically to prevent use or operation of the radiation source or field while individuals are in the area;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (b) (3)

Regulatory Text: A control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (b) (4)

Regulatory Text: Entryways that are locked. During periods when access to the area is required, positive control over each entry is maintained;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (b) (5)

Regulatory Text: Continuous direct or electronic surveillance that is capable of preventing unauthorized entry;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (b) (6)

Regulatory Text: A control device that will automatically generate audible and visual alarm signals to alert personnel in the area before use or operation of the radiation source and in sufficient time to permit evacuation of the area or activation of a secondary control device that will prevent use or operation of the source.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (c)

Regulatory Text: Very high radiation areas. In addition to the above requirements, additional measures shall be implemented to ensure individuals are not able to gain unauthorized or inadvertent access to very high radiation areas.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.502 (d)

Regulatory Text: No control(s) shall be established in a high or very high radiation area that would prevent rapid evacuation of personnel.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: Appendix 3B

10 CFR 835 Citation: § 835.601

Regulatory Text: General requirements.

Compliance:

Implementation Requirements:

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.601 (a)

Regulatory Text: Except as otherwise provided in this subpart, postings and labels required by this subpart shall include the standard radiation warning trefoil in black or magenta imposed upon a yellow background.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 231

10 CFR 835 Citation: § 835.601 (b)

Regulatory Text: Signs required by this subpart shall be clearly and conspicuously posted and may include radiological protection instructions.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 231

10 CFR 835 Citation: § 835.601 (c)

Regulatory Text: The posting and labeling requirements in this subpart may be modified to reflect the special considerations of DOE activities conducted at private residences or businesses. Such modifications shall provide the same level of protection to individuals as the existing provisions in this subpart.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Rocketdyne is a private business that operates under both DOE and State of California regulatory schemes. Generally, posting and labeling practices are consistent between DOE and non-DOE-related program elements at Rocketdyne. For the purposes of this RPP, posting of areas that is permissible under the California Regulatory Code (CCR) Title 17 will be acceptable for compliance to this section.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 231

10 CFR 835 Citation: § 835.602

Regulatory Text: Controlled areas.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.602 (a)

Regulatory Text: Each access point to a controlled area (as defined in § 835.2) shall be posted whenever radiological areas or radioactive material areas exist in the area. Individuals who enter only controlled areas without entering radiological areas or radioactive material areas are not expected to receive a total effective dose equivalent of more than 0.1 rem (0.001 sievert) in a year.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 232

10 CFR 835 Citation: § 835.602 (b)

Regulatory Text: Signs used for this purpose may be selected by the contractor to avoid conflict with local security requirements.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

In general, Rocketdyne will post such areas with a standard trefoil sign with appropriate access control language.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 232

10 CFR 835 Citation: § 835.603

Regulatory Text: Radiological areas and radioactive material areas. Each access point to radiological areas and radioactive material areas (as defined at § 835.2) shall be posted with conspicuous signs bearing the wording provided in this section.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Posting for Radioactive Materials Areas shall be conducted in accordance with California Code of Regulations (CCR) Title 17. These regulations are more restrictive than -----
10 CFR 835.

DOE-OAK has stipulated these regulations be used in lieu of 10 CFR 835 for the labeling, posting, and control of radioactive sources.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: Table 4-1

10 CFR 835 Citation: § 835.603 (a)

Regulatory Text: Radiation Area. The words "Caution, Radiation Area" shall be posted at each radiation area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-3

10 CFR 835 Citation: § 835.603 (b)

Regulatory Text: High Radiation Area. The words "Caution, High Radiation Area" or "Danger, High Radiation Area" shall be posted at each high radiation area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-3

10 CFR 835 Citation: § 835.603 (c)

Regulatory Text: Very High Radiation Area. The words "Grave Danger, Very High Radiation Area" shall be posted at each very high radiation area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-3

10 CFR 835 Citation: § 835.603 (d)

Regulatory Text: Airborne Radioactivity Area. The words "Caution, Airborne Radioactivity Area" or "Danger, Airborne Radioactivity Area" shall be posted at each airborne radioactivity area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-4

10 CFR 835 Citation: § 835.603 (e)

Regulatory Text: Contamination Area. The words "Caution, Contamination Area" shall be posted at each contamination area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-4

10 CFR 835 Citation: § 835.603 (f)

Regulatory Text: High Contamination Area. The words "Caution, High Contamination Area" or "Danger, High Contamination Area" shall be posted at each high contamination area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: Table 2-4

10 CFR 835 Citation: § 835.603 (g)

Regulatory Text: Radioactive Material Area. The words "Caution, Radioactive Material(s)" shall be posted at each radioactive material area.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: Table 4-1

10 CFR 835 Citation: § 835.604

Regulatory Text: Exceptions to posting requirements.

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.604 (a)

Regulatory Text: Areas may be excepted from the posting requirements of § 835.603 for periods of less than 8 continuous hours when placed under continuous observation and control of an individual knowledgeable of, and empowered to implement, required access and exposure control measures.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 231

10 CFR 835 Citation: § 835.604 (b)

Regulatory Text: Areas may be excepted from the radioactive material area posting requirements of § 835.603(g) when:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.604 (b) (1)

Regulatory Text: Posted in accordance with § 835.603(a) through (f); or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 236

10 CFR 835 Citation: § 835.604 (b) (2)

Regulatory Text: Each item or container of radioactive material is labeled in accordance with this subpart such that individuals entering the area are made aware of the hazard; or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 236

10 CFR 835 Citation: § 835.604 (b) (3)

Regulatory Text: The radioactive material of concern consists solely of structures or installed components which have been activated (i.e. such as by being exposed to neutron radiation or particles produced in an accelerator).

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 236

10 CFR 835 Citation: § 835.604 (c)

Regulatory Text: Areas containing only packages received from radioactive material transportation labeled and in non-degraded condition need not be posted in accordance with § 835.603 until the packages are monitored in accordance with § 835.405.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements: See § 835.405. These procedures are being updated. See § 835.101(f) for schedule.

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 236

10 CFR 835 Citation: § 835.605

Regulatory Text: Labeling items and containers. Except as provided in § 835.606, each item or container of radioactive material shall bear a durable, clearly visible label bearing the standard radiation warning trefoil and the words "Caution, Radioactive Material" or "Danger, Radioactive Material." The label shall also provide sufficient information to permit individuals handling, using, or working in the vicinity of the items or containers, to take precautions to avoid or control exposures.

Compliance: DOE-OAK has determined that the California Code of Regulations (CCR) Title 17 regulations are more restrictive, and has stipulated that the labeling of sources shall comply to that regulatory code. Rocketdyne agrees to this stipulation and will implement the California regulations accordingly. This is not anticipated to have significant impact upon the program.

Implementation Requirements:

Compliance Status: ALTERNATE

SOP Document: GUIDE C-401.004

Section: 412

10 CFR 835 Citation: § 835.606

Regulatory Text: Exceptions to labeling requirements.

Compliance:

Implementation Requirements:

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.606 (a)

Regulatory Text: Items and containers may be excepted from the radioactive material labeling requirements of § 835.605 when:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.606 (a) (1)

Regulatory Text: Used, handled, or stored in areas posted and controlled in accordance with this subpart and sufficient information is provided to permit individuals to take precautions to avoid or control exposures; or

Compliance: DOE-OAK has determined that the California Code of Regulations (CCR) Title 17 regulations are more restrictive, and has stipulated that the labeling of sources shall comply to that regulatory code. Rocketdyne agrees to this stipulation and will implement the California regulations accordingly. This is not anticipated to have significant impact upon the program.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 411

10 CFR 835 Citation: § 835.606 (a) (2)

Regulatory Text: The quantity of radioactive material is less than one tenth of the values specified in appendix E of this part; or

Compliance: DOE-OAK has determined that the California Code of Regulations (CCR) Title 17 regulations are more restrictive, and has stipulated that the labeling of sources shall comply to that regulatory code. Rocketdyne agrees to this stipulation and will implement the California regulations accordingly. This is not anticipated to have significant impact upon the program.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 412

10 CFR 835 Citation: § 835.606 (a) (3)

Regulatory Text: Packaged, labeled, and marked in accordance with the regulations of the Department of Transportation or DOE Orders governing radioactive material transportation; or

Compliance: DOE-OAK has determined that the California Code of Regulations (CCR) Title 17 regulations are more restrictive, and has stipulated that the labeling of sources shall comply to that regulatory code. Rocketdyne agrees to this stipulation and will implement the California regulations accordingly. This is not anticipated to have significant impact upon the program.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 412

10 CFR 835 Citation: § 835.606 (a) (4)

Regulatory Text: Inaccessible, or accessible only to individuals authorized to handle or use them, or to work in the vicinity; or

Compliance: DOE-OAK has determined that the California Code of Regulations (CCR) Title 17 regulations are more restrictive, and has stipulated that the labeling of sources shall comply to that regulatory code. Rocketdyne agrees to this stipulation and will implement the California regulations accordingly. This is not anticipated to have significant impact upon the program.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 412

10 CFR 835 Citation: § 835.606 (a) (5)

Regulatory Text: Installed in manufacturing, process, or other equipment, such as reactor components, piping, and tanks.

Compliance: DOE-OAK has determined that the California Code of Regulations (CCR) Title 17 regulations are more restrictive, and has stipulated that the labeling of sources shall comply to that regulatory code. Rocketdyne agrees to this stipulation and will implement the California regulations accordingly. This is not anticipated to have significant impact upon the program.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 412

10 CFR 835 Citation: § 835.606 (a) (6)

Regulatory Text: The radioactive material consists solely of nuclear weapons or their components.

Compliance: (Rocketdyne does not possess any material of this type or these types of devices.)

Implementation Requirements:

Compliance Status: N/A

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.606 (b)

Regulatory Text: Radioactive material labels applied to sealed radioactive sources may be excepted from the color specifications of § 835.601(a).

Compliance: DOE-OAK has determined that the California Code of Regulations (CCR) Title 17 regulations are more restrictive, and has stipulated that the labeling of sources shall comply to that regulatory code. Rocketdyne agrees to this stipulation and will implement the California regulations accordingly. This is not anticipated to have significant impact upon the program.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: Table 4-1

10 CFR 835 Citation: § 835.701
Regulatory Text: General provisions.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.701 (a)

Regulatory Text: Records shall be maintained to document compliance with this part and with radiation protection programs required by § 835.101.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 712

10 CFR 835 Citation: § 835.701 (b)

Regulatory Text: Unless otherwise specified in this subpart, records shall be retained until final disposition is authorized by DOE.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 774

10 CFR 835 Citation: § 835.702

Regulatory Text: Individual monitoring records.

Compliance:

Implementation Requirements:

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.702 (a)
Regulatory Text: Records shall be maintained to document doses received by all individuals for whom monitoring was required pursuant to § 835.402 and to document doses received during planned special exposures, unplanned doses exceeding the monitoring thresholds of § 835.402, and authorized emergency exposures.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements: Procedure clarifications are required. See § 835.0101(f) for schedule.

Compliance Status: FULL

SOP Document: GUIDE C-401.007
Section: 722

10 CFR 835 Citation: § 835.702 (b)
Regulatory Text: The results of individual external and internal dose monitoring that is performed, but not required by § 835.402, shall be recorded. Recording of the non-uniform shallow dose equivalent to the skin is not required if the dose is less than 2 percent of the limit specified for the skin at § 835.202(a)(4).

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements: Procedure clarifications are required. See § 835.0101(f) for schedule.

Compliance Status: FULL

SOP Document: GUIDE C-401.007
Section: 722

10 CFR 835 Citation: § 835.702 (c)
Regulatory Text: The records required by this section shall:
Compliance:
Implementation Requirements:

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.702 (c) (1)
Regulatory Text: Be sufficient to evaluate compliance with subpart C of this part;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.
Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: Part 1

10 CFR 835 Citation: § 835.702 (c) (2)
Regulatory Text: Be sufficient to provide dose information necessary to complete reports required by subpart I of this part;
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.
Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: Part 1

10 CFR 835 Citation: § 835.702 (c) (3)

Regulatory Text: Include the following quantities for external dose received during the year:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (3) (i)

Regulatory Text: The effective dose equivalent from external sources of radiation (deep dose equivalent may be used as effective dose equivalent for external exposure);

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (3) (ii)

Regulatory Text: The lens of the eye dose equivalent;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (3) (iii)

Regulatory Text: The shallow dose equivalent to the skin; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (3) (iv)

Regulatory Text: The shallow dose equivalent to the extremities.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (4)
Regulatory Text: Include the following information for internal dose resulting from intakes received during the year: :

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (4) (i)

Regulatory Text: Committed effective dose equivalent;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (4) (ii)
Regulatory Text: Committed dose equivalent to any organ or tissue of concern;
and

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: 722

10 CFR 835 Citation: § 835.702 (c) (4) (iii)
Regulatory Text: Identity of radionuclides.

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: 722

10 CFR 835 Citation: § 835.702 (c) (5)

Regulatory Text: Include the following quantities for the summation of the external and internal dose:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.702 (c) (5) (i)

Regulatory Text: Total effective dose equivalent in a year;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (5) (ii)

Regulatory Text: For any organ or tissue assigned an internal dose during the year, the sum of the deep dose equivalent from external exposures and the committed dose equivalent to that organ or tissue; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (5) (iii)

Regulatory Text: Cumulative total effective dose equivalent.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (c) (6)
Regulatory Text: Include the dose equivalent to the embryo/fetus of a declared pregnant worker.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007
Section: 723

10 CFR 835 Citation: § 835.702 (d)
Regulatory Text: Documentation of all occupational doses received during the current year, except for doses resulting from planned special exposures conducted in compliance with § 835.204 and emergency exposures authorized in accordance with § 835.1302(d), shall be obtained to demonstrate compliance with § 835.202(a). If complete records documenting previous occupational dose during the year cannot be obtained, a written estimate signed by the individual may be accepted to demonstrate compliance.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Signed estimates will satisfy this requirement for individuals who have less than 100 mrem in a year. Documentation will be required for any individual who meets or exceeds 100 mrem in a year.

This approach was accepted by DOE in 1996 (ref: letter Fitzgerald to Gibbs. 3 January 1996). A copy of the referenced letter has been provided to DOE-OAK.

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: 721

10 CFR 835 Citation: § 835.702 (e)

Regulatory Text: For radiological workers whose occupational dose is monitored in accordance with § 835.402, reasonable efforts shall be made to obtain complete records of prior years occupational internal and external doses.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Signed estimates will satisfy this requirement for individuals who have less than 100 mrem in a year. Documentation will be required for any individual who meets or exceeds 100 mrem in a year.

This approach was accepted by DOE in 1996 (ref: letter Fitzgerald to Gibbs. 3 January 1996). A copy of the referenced letter has been provided to DOE-DAK.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.702 (f)

Regulatory Text: The records specified in this section that are identified with a specific individual shall be readily available to that individual.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 781

10 CFR 835 Citation: § 835.702 (g)
Regulatory Text: Data necessary for future verification or reassessment of the recorded doses shall be recorded;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: 722

10 CFR 835 Citation: § 835.702 (h)
Regulatory Text: All records required by this section shall be transferred to the DOE upon cessation of activities at the site that could cause exposure to individuals.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

The original records are the property of Rocketdyne and are subject to Rocketdyne business practices for this record type. Custody of original records shall not be transferred to another individual or entity without the concurrence of the Manager, Radiation Safety.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: 774

10 CFR 835 Citation: § 835.703

Regulatory Text: Other monitoring records. The following information shall be documented and maintained:

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.703 (a)

Regulatory Text: Results of monitoring for radiation and radioactive material as required by subparts E and L of this part, except for monitoring required by § 835.1102(d);

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

For information:

Subpart E: (§ 835.401 - § 835.405) "Monitoring of Individuals and Areas"
Subpart L: (§ 835.1101 - § 835.1102) "Radioactive Contamination and Control"

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 712

10 CFR 835 Citation: § 835.703 (b)

Regulatory Text: Results of monitoring used to determine individual occupational dose from external and internal sources;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 722

10 CFR 835 Citation: § 835.703 (c)

Regulatory Text: Results of monitoring for the release and control of material and equipment as required by § 835.1101; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 712

10 CFR 835 Citation: § 835.703 (d)

Regulatory Text: Results of maintenance and calibration performed on instruments and equipment as required by § 835.401(b).

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 761

10 CFR 835 Citation: § 835.704

Regulatory Text: Administrative records.

Compliance:

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.704 (a)

Regulatory Text: Training records shall be maintained, as necessary, to demonstrate compliance with § 835.901.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 725

10 CFR 835 Citation: § 835.704 (b)

Regulatory Text: Actions taken to maintain occupational exposures as low as reasonably achievable, including the actions required for this purpose by § 835.101, as well as facility design and control actions required by § 835.1001, § 835.1002 and § 835.1003, shall be documented.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 742

10 CFR 835 Citation: § 835.704 (c)
Regulatory Text: Records shall be maintained to document the results of internal audits and other reviews of program content and implementation.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: 743

10 CFR 835 Citation: § 835.704 (d)
Regulatory Text: Declarations of pregnancy, including the estimated date of conception, and revocations of declarations of pregnancy shall be maintained.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.007
Section: 723

10 CFR 835 Citation: § 835.704 (e)

Regulatory Text: Changes in equipment, techniques, and procedures used for monitoring shall be documented.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 551

10 CFR 835 Citation: § 835.704 (f)

Regulatory Text: Records shall be maintained as necessary to demonstrate compliance with the requirements of § 835.1201 and § 835.1202 for sealed radioactive source control, inventory, and source leak tests.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 712

10 CFR 835 Citation: § 835.801
Regulatory Text: Reports to individuals.

Compliance:

Implementation Requirements:

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.801 (a)

Regulatory Text: Radiation exposure data for individuals monitored in accordance with § 835.402 shall be reported as specified in this section. The information shall include the data required under § 835.702(c). Each notification and report shall be in writing and include: the DOE site or facility name, the name of the individual, and the individual's social security number, employee number, or other unique identification number.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements: Rocketdyne currently provides this information to workers. The exposure history forms sent to workers will require minor changes in wording. The schedule for these changes are included in § 835.101(f).

Compliance Status: PARTIAL

SOP Document: GUIDE C-401.007

Section: 781

10 CFR 835 Citation: § 835.801 (b)

Regulatory Text: Upon the request from an individual terminating employment, records of exposure shall be provided to that individual as soon as the data are available, but not later than 90 days after termination. A written estimate of the radiation dose received by that employee based on available information shall be provided at the time of termination, if requested.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 781

10 CFR 835 Citation: § 835.801 (c)

Regulatory Text: Each DOE- or DOE-contractor-operated site or facility shall, on an annual basis, provide a radiation dose report to each individual monitored during the year at that site or facility in accordance with § 835.402.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

§ 835.402 stipulates several conditions where an individual must be issued a personal monitoring device. When the device is issued in response to these regulatory stipulations, then an annual report will be routinely provided to the individual.

From time to time, Rocketdyne may issue a device to an individual for informational purposes, even when no requirement to do so exists in the regulations. In these cases, since the device was being issued without regulatory requirement, an annual report is not required. As these determinations are made prespectively, Rocketdyne will routinely provide an annual report to any individual whose measured dose meets or exceeds 100 mrem in the year.

In addition, Rocketdyne will provide an annual report to any individual who requests one.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 781

10 CFR 835 Citation: § 835.801 (d)

Regulatory Text: Detailed information concerning any individual's exposure shall be made available to the individual upon request of that individual, consistent with the provisions of the Privacy Act (5 U.S.C. 552a).

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 781

10 CFR 835 Citation: § 835.801 (e)

Regulatory Text: When a DOE contractor is required to report to the Department, pursuant to Departmental requirements for occurrence reporting and processing, any exposure of an individual to radiation and/or radioactive material, or planned special exposure in accordance with § 835.204(e), the contractor shall also provide that individual with a report on his or her exposure data included therein. Such report shall be transmitted at a time not later than the transmittal to the Department.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.007

Section: 781

10 CFR 835 Citation: § 835.901
Regulatory Text: Radiation safety training.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.901 (a)

Regulatory Text: Each individual shall complete radiation safety training on the topics established at § 835.901(c) commensurate with the hazards in the area and the required controls:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (a) (1)
Regulatory Text: Before being permitted unescorted access to controlled areas;
and

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: GUIDE C-401.006
Section: 632

10 CFR 835 Citation: § 835.901 (a) (2)
Regulatory Text: Before receiving occupational dose during access to controlled
areas at a DOE site or facility.

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: GUIDE C-401.006
Section: 632

10 CFR 835 Citation: § 835.901 (b)

Regulatory Text: Each individual shall demonstrate knowledge of the radiation safety training topics established in § 835.901(c), commensurate with the hazards in the area and required controls, by successful completion of an examination and performance demonstrations:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Performance demonstrations may consist of mockup training or of supervised on-the-job training (OJT) checklists.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: 613

10 CFR 835 Citation: § 835.901 (b) (1)

Regulatory Text: Before being permitted unescorted access to radiological areas; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: 632

10 CFR 835 Citation: § 835.901 (b) (2)
Regulatory Text: Before performing unescorted assignments as a radiological worker.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: 632

10 CFR 835 Citation: § 835.901 (c)
Regulatory Text: Radiation safety training shall include the following topics, to the extent appropriate to each individual's prior training, work assignments, and degree of exposure to potential radiological hazards:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (c) (1)

Regulatory Text: Risks of exposure to radiation and radioactive materials,
including prenatal radiation exposure;

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (c) (2)

Regulatory Text: Basic radiological fundamentals and radiation protection
concepts;

Compliance: Rocketdyne complies with the requirement as stated in the
Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (c) (3)

Regulatory Text: Physical design features, administrative controls, limits, policies, procedures, alarms, and other measures implemented at the facility to manage doses and maintain doses ALARA, including both routine and emergency actions;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (c) (4)

Regulatory Text: Individual rights and responsibilities as related to implementation of the facility radiation protection program;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (c) (5)
Regulatory Text: Individual responsibilities for implementing ALARA measures required by § 835.101; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (c) (6)
Regulatory Text: Individual exposure reports that may be requested in accordance with § 835.801.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: Appendix 6-2

10 CFR 835 Citation: § 835.901 (d)

Regulatory Text: When an escort is used in lieu of training in accordance with paragraph (a) or (b) of this section, the escort shall:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: 622

10 CFR 835 Citation: § 835.901 (d) (1)

Regulatory Text: Have completed radiation safety training, examinations, and performance demonstrations required for entry to the area and performance of the work; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.006

Section: 622

10 CFR 835 Citation: § 835.901 (d) (2)
Regulatory Text: Ensure that all escorted individuals comply with the documented radiation protection program.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.006
Section: 622

10 CFR 835 Citation: § 835.901 (e)
Regulatory Text: Radiation safety training shall be provided to individuals when there is a significant change to radiation protection policies and procedures that may affect the individual and at intervals not to exceed 24 months. Such training provided for individuals subject to the requirements of § 835.901(b)(1) and (b)(2) shall include successful completion of an examination.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.006
Section: Appendix 6-1

10 CFR 835 Citation: § 835.902
Regulatory Text: [Removed and Reserved].
Compliance:
Implementation
Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.903
Regulatory Text: [Removed and Reserved].
Compliance:
Implementation
Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1001
Regulatory Text: Design and control.
Compliance:
Implementation
Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1001 (a)

Regulatory Text:

Measures shall be taken to maintain radiation exposure in controlled areas ALARA through physical design features and administrative control. The primary methods used shall be physical design features (e.g., confinement, ventilation, remote handling, and shielding). Administrative controls shall be employed only as supplemental methods to control radiation exposure.

Compliance:

Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status:

FULL

SOP Document:

GUIDE C-401.003

Section:

316

10 CFR 835 Citation: § 835.1001 (b)

Regulatory Text:

For specific activities where use of physical design features is demonstrated to be impractical, administrative controls shall be used to maintain radiation exposures ALARA.

Compliance:

Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status:

FULL

SOP Document:

GUIDE C-401.003

Section:

311

10 CFR 835 Citation: § 835.1002
Regulatory Text: Facility design and modifications. During the design of new facilities or modification of existing facilities, the following objectives shall be adopted:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: SOP C-401
Section: Procedure; Sxn B

10 CFR 835 Citation: § 835.1002 (a)
Regulatory Text: Optimization methods shall be used to assure that occupational exposure is maintained ALARA in developing and justifying facility design and physical controls.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 312

10 CFR 835 Citation: § 835.1002 (b)

Regulatory Text:

The design objective for controlling personnel exposure from external sources of radiation in areas of continuous occupational occupancy (2000 hours per year) shall be to maintain exposure levels below an average of 0.5 mrem (5 microsieverts) per hour and as far below this average as is reasonably achievable. The design objectives for exposure rates for potential exposure to a radiological worker where occupancy differs from the above shall be ALARA and shall not exceed 20 percent of the applicable standards in § 835.202.

Compliance:

Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status:

FULL

SOP Document:

GUIDE C-401.001

Section:

128

10 CFR 835 Citation: § 835.1002 (c)

Regulatory Text:

Regarding the control of airborne radioactive material, the design objective shall be, under normal conditions, to avoid releases to the workplace atmosphere and in any situation, to control the inhalation of such material by workers to levels that are ALARA; confinement and ventilation shall normally be used.

Compliance:

Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status:

FULL

SOP Document:

GUIDE C-401.001

Section:

128

10 CFR 835 Citation: § 835.1002 (d)

Regulatory Text: The design or modification of a facility and the selection of materials shall include features that facilitate operations, maintenance, decontamination, and decommissioning.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.001

Section: 128

10 CFR 835 Citation: § 835.1003

Regulatory Text: Workplace Controls. During routine operations, the combination of physical design features and administrative controls shall provide that:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1003 (a)

Regulatory Text: The anticipated occupational dose to general employees shall not exceed the limits established at § 835.202; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.002

Section: 213

10 CFR 835 Citation: § 835.1003 (b)

Regulatory Text: The ALARA process is utilized for personnel exposures to ionizing radiation.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: SOP C-401

Section: Procedure; Sxn. B

10 CFR 835 Citation: § 835.1101
Regulatory Text: Control of material and equipment.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1101 (a)

Regulatory Text: Except as provided in paragraphs (b) and (c) of this section, material and equipment in contamination areas, high contamination areas, and airborne radioactivity areas shall not be released to a controlled area if:

Compliance:

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1101 (a) (1)

Regulatory Text: Removable surface contamination levels on accessible surfaces exceed the removable surface contamination values specified in appendix D of this part; or

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 421

10 CFR 835 Citation: § 835.1101 (a) (2)

Regulatory Text: Prior use suggests that the removable surface contamination levels on inaccessible surfaces are likely to exceed the removable surface contamination values specified in appendix D of this part.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.005

Section: 554

10 CFR 835 Citation: § 835.1101 (b)

Regulatory Text: Material and equipment exceeding the removable surface contamination values specified in appendix D of this part may be conditionally released for movement on-site from one radiological area for immediate placement in another radiological area only if appropriate monitoring is performed and appropriate controls for the movement are established and exercised.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 421

10 CFR 835 Citation: § 835.1101 (c)

Regulatory Text: Material and equipment with fixed contamination levels that exceed the total surface contamination values specified in appendix D of this part may be released for use in controlled areas outside of radiological areas only under the following conditions:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 421

10 CFR 835 Citation: § 835.1101 (c) (1)

Regulatory Text: Removable surface contamination levels are below the removable surface contamination values specified in appendix D of this part; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 421

10 CFR 835 Citation: § 835.1101 (c) (2)

Regulatory Text: The material or equipment is routinely monitored and clearly marked or labeled to alert personnel of the contaminated status.
Note: See § 835.703(c).

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 421

10 CFR 835 Citation: § 835.1102
Regulatory Text: Control of areas.
Compliance:
Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1102 (a)
Regulatory Text: Appropriate controls shall be maintained and verified which prevent the inadvertent transfer of removable contamination to locations outside of radiological areas under normal operating conditions.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 331

10 CFR 835 Citation: § 835.1102 (b)

Regulatory Text: Any area in which contamination levels exceed the values specified in appendix D of this part shall be controlled in a manner commensurate with the physical and chemical characteristics of the contaminant, the radionuclides present, and the fixed and removable surface contamination levels.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 331

10 CFR 835 Citation: § 835.1102 (c)

Regulatory Text: Areas accessible to individuals where the measured total surface contamination levels exceed, but the removable surface contamination levels are less than, corresponding surface contamination values specified in appendix D of this part, shall be controlled as follows when located outside of radiological areas:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1102 (c) (1)

Regulatory Text: The area shall be routinely monitored to ensure the removable surface contamination level remains below the removable surface contamination values specified in appendix D of this part; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 335

10 CFR 835 Citation: § 835.1102 (c) (2)

Regulatory Text: The area shall be conspicuously marked to warn individuals of the contaminated status.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 335

10 CFR 835 Citation: § 835.1102 (d)

Regulatory Text: Individuals exiting contamination, high contamination, or airborne radioactivity areas shall be monitored, as appropriate, for the presence of surface contamination.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 335

10 CFR 835 Citation: § 835.1102 (e)

Regulatory Text: Protective clothing shall be required for entry to areas in which removable contamination exists at levels exceeding the removable surface contamination values specified in appendix D of this part.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 335

10 CFR 835 Citation: § 835.1201

Regulatory Text: Sealed radioactive source control. Sealed radioactive sources shall be used, handled, and stored in a manner commensurate with the hazards associated with operations involving the sources.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 431

10 CFR 835 Citation: § 835.1202

Regulatory Text: Accountable sealed radioactive sources.

Compliance:

Implementation Requirements:

Compliance Status: --

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1202 (a)
Regulatory Text: Each accountable sealed radioactive source shall be inventoried at intervals not to exceed six months. This inventory shall:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.004
Section: 431

10 CFR 835 Citation: § 835.1202 (a) (1)
Regulatory Text: Establish the physical location of each accountable sealed radioactive source;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.004
Section: 431

10 CFR 835 Citation: § 835.1202 (a) (2)

Regulatory Text: Verify the presence and adequacy of associated postings and labels; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 431

10 CFR 835 Citation: § 835.1202 (a) (3)

Regulatory Text: Establish the adequacy of storage locations, containers, and devices.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.004

Section: 431

10 CFR 835 Citation: § 835.1202 (b)
Regulatory Text: Except for sealed radioactive sources consisting solely of gaseous radioactive material or tritium, each accountable sealed radioactive source shall be subject to a source leak test upon receipt, when damage is suspected, and at intervals not to exceed six months. Source leak tests shall be capable of detecting radioactive material leakage equal to or exceeding 0.005 microcurie.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.004
Section: 431

10 CFR 835 Citation: § 835.1202 (c)
Regulatory Text: Notwithstanding the requirements of paragraph (b) of this section, an accountable sealed radioactive source is not subject to periodic source leak testing if that source has been removed from service. Such sources shall be stored in a controlled location, subject to periodic inventory as required by paragraph (a) of this section, and subject to source leak testing prior to being returned to service.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.004
Section: 431

10 CFR 835 Citation: § 835.1202 (d)
Regulatory Text: Notwithstanding the requirements of paragraphs (a) and (b) of this section, an accountable sealed radioactive source is not subject to periodic inventory and source leak testing if that source is located in an area that is unsafe for human entry or otherwise inaccessible.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.004
Section: 431

10 CFR 835 Citation: § 835.1202 (e)
Regulatory Text: An accountable sealed radioactive source found to be leaking radioactive material shall be controlled in a manner that minimizes the spread of radioactive contamination.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.004
Section: 431

10 CFR 835 Citation: § 835.1301
Regulatory Text: General provisions.
Compliance:
Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1301 (a)
Regulatory Text: A general employee whose occupational dose has exceeded the numerical value of any of the limits specified in § 835.202 as a result of an authorized emergency exposure may be permitted to return to work in radiological areas during the current year providing that all of the following conditions are met:

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 346

10 CFR 835 Citation: § 835.1301 (a) (1)

Regulatory Text: Approval is first obtained from the contractor management and the Head of the responsible DOE field organization;

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 346

10 CFR 835 Citation: § 835.1301 (a) (2)

Regulatory Text: The individual receives counseling from radiological protection and medical personnel regarding the consequences of receiving additional occupational exposure during the year; and

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 346

10 CFR 835 Citation: § 835.1301 (a) (3)
Regulatory Text: The affected employee agrees to return to radiological work.
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 346

10 CFR 835 Citation: § 835.1301 (b)
Regulatory Text: All doses exceeding the limits specified in § 835.202 shall be recorded in the affected individual's occupational dose record.
Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 346

10 CFR 835 Citation: § 835.1301 (c)
Regulatory Text: When the conditions under which a dose was received in excess of the limits specified in § 835.202, except those doses received in accordance with § 835.204, have been eliminated, operating management shall notify the Head of the responsible DOE field organization.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 346

10 CFR 835 Citation: § 835.1301 (d)
Regulatory Text: Operations after a dose was received in excess of the limits specified in § 835.202, except those received in accordance with §835.204, may be resumed only with the approval of DOE.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 346

10 CFR 835 Citation: § 835.1302
Regulatory Text: Emergency exposure situations.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1302 (a)

Regulatory Text: The risk of injury to those individuals involved in rescue and recovery operations shall be minimized.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: GUIDE C-401.003

Section: 346

10 CFR 835 Citation: § 835.1302 (b)
Regulatory Text: Operating management shall weigh actual and potential risks against the benefits to be gained.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 346

10 CFR 835 Citation: § 835.1302 (c)
Regulatory Text: No individual shall be required to perform rescue action that might involve substantial personal risk.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 3461

10 CFR 835 Citation: § 835.1302 (d)
Regulatory Text: Each individual authorized to perform emergency actions likely to result in occupational doses exceeding the values of the limits provided at § 835.202(a) shall be trained in accordance with § 835.901(b) and briefed beforehand on the known or anticipated hazards to which the individual will be subjected.

Compliance: Rocketdyne complies with the requirement as stated in the Regulation.

Implementation Requirements:

Compliance Status: FULL
SOP Document: GUIDE C-401.003
Section: 346

10 CFR 835 Citation: § 835.1303

Regulatory Text: [Reserved]

Compliance:

Implementation Requirements:

Compliance Status: ---
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1304
Regulatory Text: Nuclear accident dosimetry.

Compliance:

*Implementation
Requirements:*

Compliance Status: ---

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1304 (a)

Regulatory Text: Installations possessing sufficient quantities of fissile material to potentially constitute a critical mass, such that the excessive exposure of individuals to radiation from a nuclear accident is possible, shall provide nuclear accident dosimetry for those individuals.

Compliance: [Rocketdyne does not possess such quantities of materials. This section does not apply to its DOE-related operations.]

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

10 CFR 835 Citation: § 835.1304 (b)
Regulatory Text: Nuclear accident dosimetry shall include the following:
Compliance: [Rocketdyne does not possess such quantities of materials.
This section does not apply to its DOE-related operations.]

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1304 (b) (1)
Regulatory Text: A method to conduct initial screening of individuals involved in a
nuclear accident to determine whether significant exposures to
radiation occurred;

Compliance: [Rocketdyne does not possess such quantities of materials.
This section does not apply to its DOE-related operations.]

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1304 (b) (2)
Regulatory Text: Methods and equipment for analysis of biological materials;
Compliance: [Rocketdyne does not possess such quantities of materials.
This section does not apply to its DOE-related operations.]

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1304 (b) (3)
Regulatory Text: A system of fixed nuclear accident dosimeter units; and
Compliance: [Rocketdyne does not possess such quantities of materials.
This section does not apply to its DOE-related operations.]

*Implementation
Requirements:*

Compliance Status: FULL
SOP Document: [No Reference]
Section: N/A

10 CFR 835 Citation: § 835.1304 (b) (4)

Regulatory Text: Personal nuclear accident dosimeters.

Compliance: [Rocketdyne does not possess such quantities of materials.
This section does not apply to its DOE-related operations.]

*Implementation
Requirements:*

Compliance Status: FULL

SOP Document: [No Reference]

Section: N/A

Attachment B
Compliance Status of 10 CFR 835

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.1	---
§ 835.1 (a)	FULL
§ 835.1 (b)	---
§ 835.1 (b) (1)	N/A
§ 835.1 (b) (2)	N/A
§ 835.1 (b) (3)	N/A
§ 835.1 (b) (4)	N/A
§ 835.1 (b) (5)	N/A
§ 835.1 (b) (6)	FULL
§ 835.1 (c)	FULL
§ 835.2 (a), (b), and (c)	FULL
§ 835.3	---
§ 835.3 (a)	---
§ 835.3 (a), (1)	FULL
§ 835.3 (a) (2)	FULL
§ 835.3 (b)	FULL
§ 835.3 (c)	N/A
§ 835.3 (d)	FULL
§ 835.3 (e)	FULL
§ 835.4	FULL
§ 835.101	FULL

10 CFR 835 Section Compliance Status

§ 835.101 (a)

PARTIAL

During the readiness review for the implementation of these regulations, several procedures required minor changes. The plans and schedules to address the needed changes are described in § 835.101(f).

§ 835.101 (b)

FULL

§ 835.101 (c)

FULL

§ 835.101 (d)

PARTIAL

Rocketdyne has utilized California Title 17 as the pertinent body of regulations for contract radiographers. DOE has now taken a position that 10 CFR 835 would apply to these activities. Rocketdyne will implement these requirements as described in the schedule listed in § 835.101 (f)

§ 835.101 (e)

FULL

§ 835.101 (f)

PARTIAL

General Program Procedures:

Rocketdyne identified several needed changes in its procedures in order to clarify certain administrative issues raised by the implementation of the amended regulations. Unless specifically called out in the discussion below, the schedule for these procedural changes is as follows:

- 1) Procedure changes prepared in draft: 1 Feb 2
- 2) Procedure reviewed and approved: 1 March 2
- 3) Procedures distributed: 15 March 2
- 4) Procedures fully implemented: 15 May 2

DOELAP Exemption

Rocketdyne has determined that it is unlikely that an individual will meet or exceed 100 mrem CEDE from normal work activities. Rocketdyne intends to request that it be exempted in accordance with the provisions of DOELAP policies (note that this is a different process than exemption under 10 CFR 835). While Rocketdyne believes that its program is in substantial compliance with DOELAP, it does not feel that limited future need for the program justifies the cost of obtaining such a certification. The schedule for

10 CFR 835 Section

Compliance Status

the preparation of this request is as follows:

- 1) Prepare request for exception under DOELAP for Radiobioassay:
1 June 2
- 2) Receive Approval / Disapproval for Exception:
30 September 2

If the exception request is not approved, Rocketdyne will submit a schedule for DOELAP compliance at that time.

Implementation of Contract Radiographer Stipulations

Rocketdyne will utilize radiographers who possess a California license. DOE-OAK has taken the position that such operations are subject to 10 CFR 835. Rocketdyne will need to revise certain procedures and contract processes to formally incorporate these additional requirements.

- 1) Prepare procedure covering operations of contract radiographers working on DOE property or equipment: 1 April 2
- 2) Amend current radiography services contracts to implement requirements of 10 CFR 835 for contract source radiography:
1 May 2

Receipt of Radioactive Materials:

Rocketdyne receives radioactive materials at its DeSoto facilities. Certain procedures need to be updated to clarify the process to be used for the receipt of such material. The schedule is:

- 1) Complete review of procedure: 30 November 1999
- 2) Obtain Approval of procedure: 11 December 1999
- 3) Distribute Procedure: 23 December 1999
- 4) Full Implementation: 31 January 2

Dose Reports to Individuals

Rocketdyne prepares its dose reports under California Code of Regulations Title 17. The requirements of CCR Title 17 and 10 CFR 835 are essentially equivalent. Additional language

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recognizing DOE and the former ETEC needs to be included in the report.

- 1) Amend dose report forms to include reference to DOE and ETEC:
24 December 1999
- 2) Implement new dose report forms: 1 January 2

§ 835.101 (g)	FULL
§ 835.101 (g) (1)	FULL
§ 835.101 (g) (2)	FULL
§ 835.101 (g) (3)	FULL
§ 835.101 (h)	FULL
§ 835.101 (i)	FULL
§ 835.102	FULL
§ 835.103	FULL
§ 835.104	FULL
§ 835.201	---
§ 835.202	---
§ 835.202 (a)	N/A
§ 835.202 (a) (1)	FULL
§ 835.202 (a) (2)	FULL
§ 835.202 (a) (3)	FULL
§ 835.202 (a) (4)	FULL
§ 835.202 (b)	FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.202 (c)	FULL
§ 835.203	FULL
§ 835.203 (a)	FULL
§ 835.203 (b)	FULL
§ 835.204	---
§ 835.204 (a)	N/A
§ 835.204 (a) (1)	N/A
§ 835.204 (a) (2)	N/A
§ 835.204 (a) (3)	N/A
§ 835.204 (b)	N/A
§ 835.204 (c)	N/A
§ 835.204 (c) (1)	N/A
§ 835.204 (c) (2)	N/A
§ 835.204 (d)	N/A
§ 835.204 (d) (1)	N/A
§ 835.204 (d) (2)	N/A
§ 835.204 (d) (3)	N/A
§ 835.204 (e)	N/A
§ 835.204 (f)	N/A
§ 835.205	---
§ 835.205 (a)	FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.205 (b)	FULL
§ 835.205 (b) (1)	FULL
§ 835.205 (b) (2)	FULL
§ 835.205 (b) (3)	FULL
§ 835.205 (b) (3)	FULL
§ 835.205 (b) (3)	FULL
§ 835.206	---
§ 835.206 (a)	FULL
§ 835.206 (b)	FULL
§ 835.206 (c)	FULL
§ 835.207	FULL
§ 835.208	FULL
§ 835.209	---
§ 835.209 (a)	FULL
§ 835.209 (b)	FULL
§ 835.209 (b) (1)	FULL
§ 835.209 (b) (2)	FULL
§ 835.209 (b) (3)	FULL
§ 835.401	---
§ 835.401 (a)	FULL
§ 835.401 (a) (1)	FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.401 (a) (2)	FULL
§ 835.401 (a) (3)	FULL
§ 835.401 (a) (4)	FULL
§ 835.401 (a) (5)	FULL
§ 835.401 (a) (6)	FULL
§ 835.401 (b)	FULL
§ 835.401 (b) (1)	FULL
§ 835.401 (b) (2)	FULL
§ 835.401 (b) (3)	FULL
§ 835.401 (b) (4)	FULL
§ 835.402	---
§ 835.402 (a)	FULL
§ 835.402 (a) (1)	FULL
§ 835.402 (a) (2)	FULL
§ 835.402 (a) (3)	FULL
§ 835.402 (a) (4)	FULL
§ 835.402 (a) (5)	FULL
§ 835.402 (b)	FULL

10 CFR 835 Section Compliance Status

§ 835.402 (b) (1) FULL

§ 835.402 (b) (2) N/A

§ 835.402 (c) FULL

§ 835.402 (c) (1) FULL

§ 835.402 (c) (2) FULL

§ 835.402 (c) (3) FULL

§ 835.402 (c) (4) FULL

§ 835.402 (d) FULL

§ 835.402 (d) (1) FULL

Rocketdyne will request an exception under the DOELAP
Radiobioassay program. The schedule and plan for this request is
provided in § 835.101 (f).

§ 835.402 (d) (2) FULL

§ 835.403 ---

§ 835.403 (a) FULL

§ 835.403 (a) (1) FULL

§ 835.403 (a) (2) FULL

§ 835.403 (b) FULL

§ 835.404 ---

§ 835.405 FULL

The procedures covering the receipt of material need to be clarified.
The timeline and schedule for this is provided in § 835.101(f).

§ 835.405 (a) FULL

§ 835.405 (a) (1) FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.405 (a) (2)	FULL
§ 835.405 (b)	FULL
§ 835.405 (b) (1)	FULL
§ 835.405 (b) (2)	FULL
§ 835.405 (b) (3)	FULL
§ 835.405 (c)	FULL
§ 835.405 (c) (1)	FULL
§ 835.405 (c) (2)	FULL
§ 835.405 (d)	FULL
§ 835.501	---
§ 835.501 (a)	FULL
§ 835.501 (b)	FULL
§ 835.501 (c)	FULL
§ 835.501 (c) (1)	FULL
§ 835.501 (c) (2)	FULL
§ 835.501 (c) (3)	FULL
§ 835.501 (c) (4)	FULL
§ 835.501 (c) (5)	FULL
§ 835.501 (d)	FULL
§ 835.501 (e)	FULL
§ 835.502	---

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.502 (a)	FULL
§ 835.502 (a) (1)	FULL
§ 835.502 (a) (2)	FULL
§ 835.502 (b)	FULL
§ 835.502 (b) (1)	FULL
§ 835.502 (b) (2)	FULL
§ 835.502 (b) (3)	FULL
§ 835.502 (b) (4)	FULL
§ 835.502 (b) (5)	FULL
§ 835.502 (b) (6)	FULL
§ 835.502 (c)	FULL
§ 835.502 (d)	FULL
§ 835.601	---
§ 835.601 (a)	FULL
§ 835.601 (b)	FULL
§ 835.601 (c)	FULL
§ 835.602	---
§ 835.602 (a)	FULL
§ 835.602 (b)	FULL
§ 835.603	FULL
§ 835.603 (a)	FULL

10 CFR 835 Section Compliance Status

§ 835.603 (b) FULL

§ 835.603 (c) FULL

§ 835.603 (d) FULL

§ 835.603 (e) FULL

§ 835.603 (f) FULL

§ 835.603 (g) FULL

§ 835.604 FULL

§ 835.604 (a) FULL

§ 835.604 (b) FULL

§ 835.604 (b) (1) FULL

§ 835.604 (b) (2) FULL

§ 835.604 (b) (3) FULL

§ 835.604 (c) FULL

See § 835.405. These procedures are being updated. See § 835.101(f) for schedule.

§ 835.605 ALTERNATE

Rocketdyne will use State of California regulations for labeling and control of radioactive sources.

§ 835.606 ---

§ 835.606 (a) FULL

§ 835.606 (a) (1) FULL

§ 835.606 (a) (2) FULL

§ 835.606 (a) (3) FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.606 (a) (4)	FULL
§ 835.606 (a) (5)	FULL
§ 835.606 (a) (6)	N/A
§ 835.606 (b)	FULL
§ 835.701	---
§ 835.701 (a)	FULL
§ 835.701 (b)	FULL
§ 835.702	---
§ 835.702 (a)	FULL
	Procedure clarifications are required. See § 835.101(f) for schedule.
§ 835.702 (b)	FULL
	Procedure clarifications are required. See § 835.101(f) for schedule.
§ 835.702 (c)	FULL
§ 835.702 (c) (1)	FULL
§ 835.702 (c) (2)	FULL
§ 835.702 (c) (3)	FULL
§ 835.702 (c) (4)	FULL
§ 835.702 (c) (4)	FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.702 (c) (4)	FULL
§ 835.702 (c) (4)	FULL
§ 835.702 (c) (5)	FULL
§ 835.702 (c) (6)	FULL
§ 835.702 (d)	FULL
§ 835.702 (e)	FULL
§ 835.702 (f)	FULL
§ 835.702 (g)	FULL
§ 835.702 (h)	FULL
§ 835.703	FULL
§ 835.703 (a)	FULL
§ 835.703 (b)	FULL
§ 835.703 (c)	FULL
§ 835.703 (d)	FULL
§ 835.704	FULL
§ 835.704 (a)	FULL
§ 835.704 (b)	FULL
§ 835.704 (c)	FULL

10 CFR 835 Section Compliance Status

§ 835.704 (d) FULL

§ 835.704 (e) FULL

§ 835.704 (f) FULL

§ 835.801 ---

§ 835.801 (a) PARTIAL

Rocketdyne currently provides this information to workers. The exposure history forms sent to workers will require minor changes in wording. The schedule for these changes are included in § 835.101(f).

§ 835.801 (b) FULL

§ 835.801 (c) FULL

§ 835.801 (d) FULL

§ 835.801 (e) FULL

§ 835.901 ---

§ 835.901 (a) FULL

§ 835.901 (a) (1) FULL

§ 835.901 (a) (2) FULL

§ 835.901 (b) FULL

§ 835.901 (b) (1) FULL

§ 835.901 (b) (2) FULL

§ 835.901 (c) FULL

§ 835.901 (c) (1) FULL

§ 835.901 (c) (2) FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.901 (c) (3)	FULL
§ 835.901 (c) (4)	FULL
§ 835.901 (c) (5)	FULL
§ 835.901 (c) (6)	FULL
§ 835.901 (d)	FULL
§ 835.901 (d) (1)	FULL
§ 835.901 (d) (2)	FULL
§ 835.901 (e)	FULL
§ 835.902	---
§ 835.903	---
§ 835.1001	---
§ 835.1001 (a)	FULL
§ 835.1001 (b)	FULL
§ 835.1002	FULL
§ 835.1002 (a)	FULL
§ 835.1002 (b)	FULL
§ 835.1002 (c)	FULL
§ 835.1002 (d)	FULL
§ 835.1003	FULL
§ 835.1003 (a)	FULL
§ 835.1003 (b)	FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.1101	---
§ 835.1101 (a)	FULL
§ 835.1101 (a) (1)	FULL
§ 835.1101 (a) (2)	FULL
§ 835.1101 (b)	FULL
§ 835.1101 (c)	FULL
§ 835.1101 (c) (1)	FULL
§ 835.1101 (c) (2)	FULL
§ 835.1102	---
§ 835.1102 (a)	FULL
§ 835.1102 (b)	FULL
§ 835.1102 (c)	FULL
§ 835.1102 (c) (1)	FULL
§ 835.1102 (c) (2)	FULL
§ 835.1102 (d)	FULL
§ 835.1102 (e)	FULL
§ 835.1201	FULL
§ 835.1202	---
§ 835.1202 (a)	FULL
§ 835.1202 (a) (1)	FULL
§ 835.1202 (a) (2)	FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.1202 (a) (3)	FULL
§ 835.1202 (b)	FULL
§ 835.1202 (c)	FULL
§ 835.1202 (d)	FULL
§ 835.1202 (e)	FULL
§ 835.1301	---
§ 835.1301 (a)	FULL
§ 835.1301 (a) (1)	FULL
§ 835.1301 (a) (2)	FULL
§ 835.1301 (a) (3)	FULL
§ 835.1301 (b)	FULL
§ 835.1301 (c)	FULL
§ 835.1301 (d)	FULL
§ 835.1302	---
§ 835.1302 (a)	FULL
§ 835.1302 (b)	FULL
§ 835.1302 (c)	FULL
§ 835.1302 (d)	FULL
§ 835.1303	---
§ 835.1304	---
§ 835.1304 (a)	FULL

<u>10 CFR 835 Section</u>	<u>Compliance Status</u>
§ 835.1304 (b)	FULL
§ 835.1304 (b) (1)	FULL
§ 835.1304 (b) (2)	FULL
§ 835.1304 (b) (3)	FULL
§ 835.1304 (b) (4)	FULL

<u>Procedure Name</u>	<u>Procedure Section</u>	<u>10 CFR 835 Section</u>
GUIDE C-401.02	236	§ 835.604 (b) (2)
GUIDE C-401.02	236	§ 835.604 (b) (3)
GUIDE C-401.02	236	§ 835.604 (c)
GUIDE C-401.02	Appendix 1B	§ 835.203 (b)
GUIDE C-401.02	Appendix 1C	§ 835.205 (a)
GUIDE C-401.02	Appendix 1C	§ 835.205 (b) (1)
GUIDE C-401.02	Appendix 1C	§ 835.205 (b) (2)
GUIDE C-401.02	Appendix 1C	§ 835.205 (b) (3)
GUIDE C-401.02	Appendix 1C	§ 835.205 (b) (3)
GUIDE C-401.02	Appendix 1C	§ 835.205 (b) (3)
GUIDE C-401.02	Appendix 1D	§ 835.4
GUIDE C-401.02	Table 2-1	§ 835.1 (b) (6)
GUIDE C-401.02	Table 2-1	§ 835.1 (c)
GUIDE C-401.02	Table 2-1	§ 835.202 (a)
GUIDE C-401.02	Table 2-1	§ 835.202 (a) (1)
GUIDE C-401.02	Table 2-1	§ 835.202 (a) (2)
GUIDE C-401.02	Table 2-1	§ 835.202 (a) (3)
GUIDE C-401.02	Table 2-1	§ 835.202 (a) (4)
GUIDE C-401.02	Table 2-1	§ 835.202 (b)
GUIDE C-401.02	Table 2-1	§ 835.202 (c)
GUIDE C-401.02	Table 2-1	§ 835.203
GUIDE C-401.02	Table 2-1	§ 835.203 (a)
GUIDE C-401.02	Table 2-1	§ 835.206 (a)
GUIDE C-401.02	Table 2-1	§ 835.206 (b)
GUIDE C-401.02	Table 2-1	§ 835.207
GUIDE C-401.02	Table 2-1	§ 835.208
GUIDE C-401.02	Table 2-3	§ 835.2 (a)
GUIDE C-401.02	Table 2-3	§ 835.603 (a)
GUIDE C-401.02	Table 2-3	§ 835.603 (b)
GUIDE C-401.02	Table 2-3	§ 835.603 (c)
GUIDE C-401.02	Table 2-4	§ 835.2 (a)

<u>Procedure Name</u>	<u>Procedure Section</u>	<u>10 CFR 835 Section</u>
GUIDE C-401.02	Table 2-4	§ 835.209 (a)
GUIDE C-401.02	Table 2-4	§ 835.603 (d)
GUIDE C-401.02	Table 2-4	§ 835.603 (e)
GUIDE C-401.02	Table 2-4	§ 835.603 (f)
GUIDE C-401.03	311	§ 835.1001 (b)
GUIDE C-401.03	312	§ 835.1002 (a)
GUIDE C-401.03	316	§ 835.1001 (a)
GUIDE C-401.03	322	§ 835.501 (d)
GUIDE C-401.03	331	§ 835.501 (a)
GUIDE C-401.03	331	§ 835.501 (b)
GUIDE C-401.03	331	§ 835.501 (c)
GUIDE C-401.03	331	§ 835.501 (c) (1)
GUIDE C-401.03	331	§ 835.501 (c) (2)
GUIDE C-401.03	331	§ 835.501 (c) (3)
GUIDE C-401.03	331	§ 835.501 (c) (4)
GUIDE C-401.03	331	§ 835.501 (c) (5)
GUIDE C-401.03	331	§ 835.501 (e)
GUIDE C-401.03	331	§ 835.1102 (a)
GUIDE C-401.03	331	§ 835.1102 (b)
GUIDE C-401.03	334	§ 835.502 (a) (1)
GUIDE C-401.03	334	§ 835.502 (a) (2)
GUIDE C-401.03	335	§ 835.1102 (c) (1)
GUIDE C-401.03	335	§ 835.1102 (c) (2)
GUIDE C-401.03	335	§ 835.1102 (d)
GUIDE C-401.03	335	§ 835.1102 (e)
GUIDE C-401.03	346	§ 835.1301 (a)
GUIDE C-401.03	346	§ 835.1301 (a) (1)
GUIDE C-401.03	346	§ 835.1301 (a) (2)
GUIDE C-401.03	346	§ 835.1301 (a) (3)
GUIDE C-401.03	346	§ 835.1301 (b)
GUIDE C-401.03	346	§ 835.1301 (c)

<u>Procedure Name</u>	<u>Procedure Section</u>	<u>10 CFR §35 Section</u>
GUIDE C-401.03	346	§ 835.1301 (d)
GUIDE C-401.03	346	§ 835.1302 (a)
GUIDE C-401.03	346	§ 835.1302 (b)
GUIDE C-401.03	346	§ 835.1302 (d)
GUIDE C-401.03	3461	§ 835.1302 (c)
GUIDE C-401.03	Appendix 3B	§ 835.502 (b)
GUIDE C-401.03	Appendix 3B	§ 835.502 (b) (1)
GUIDE C-401.03	Appendix 3B	§ 835.502 (b) (2)
GUIDE C-401.03	Appendix 3B	§ 835.502 (b) (3)
GUIDE C-401.03	Appendix 3B	§ 835.502 (b) (4)
GUIDE C-401.03	Appendix 3B	§ 835.502 (b) (5)
GUIDE C-401.03	Appendix 3B	§ 835.502 (b) (6)
GUIDE C-401.03	Appendix 3B	§ 835.502 (c)
GUIDE C-401.03	Appendix 3B	§ 835.502 (d)
GUIDE C-401.04	411	§ 835.606 (a) (1)
GUIDE C-401.04	412	§ 835.605
GUIDE C-401.04	412	§ 835.606 (a) (2)
GUIDE C-401.04	412	§ 835.606 (a) (3)
GUIDE C-401.04	412	§ 835.606 (a) (4)
GUIDE C-401.04	412	§ 835.606 (a) (5)
GUIDE C-401.04	421	§ 835.1101 (a) (1)
GUIDE C-401.04	421	§ 835.1101 (b)
GUIDE C-401.04	421	§ 835.1101 (c)
GUIDE C-401.04	421	§ 835.1101 (c) (1)
GUIDE C-401.04	421	§ 835.1101 (c) (2)
GUIDE C-401.04	423	§ 835.1 (b) (4)
GUIDE C-401.04	431	§ 835.1201
GUIDE C-401.04	431	§ 835.1202 (a)
GUIDE C-401.04	431	§ 835.1202 (a) (1)
GUIDE C-401.04	431	§ 835.1202 (a) (2)
GUIDE C-401.04	431	§ 835.1202 (a) (3)

<u>Procedure Name</u>	<u>Procedure Section</u>	<u>10 CFR 835 Section</u>
GUIDE C-401.04	431	§ 835.1202 (b)
GUIDE C-401.04	431	§ 835.1202 (c)
GUIDE C-401.04	431	§ 835.1202 (d)
GUIDE C-401.04	431	§ 835.1202 (e)
GUIDE C-401.04	Table 4-1	§ 835.2 (a)
GUIDE C-401.04	Table 4-1	§ 835.603
GUIDE C-401.04	Table 4-1	§ 835.603 (g)
GUIDE C-401.04	Table 4-1	§ 835.606 (b)
GUIDE C-401.05	511	§ 835.402 (a) (1)
GUIDE C-401.05	511	§ 835.402 (a) (1)
GUIDE C-401.05	511	§ 835.402 (a) (1)
GUIDE C-401.05	511	§ 835.402 (a) (2)
GUIDE C-401.05	511	§ 835.402 (a) (3)
GUIDE C-401.05	511	§ 835.402 (a) (4)
GUIDE C-401.05	511	§ 835.402 (a) (5)
GUIDE C-401.05	512	§ 835.402 (b) (1)
GUIDE C-401.05	521	§ 835.209 (b)
GUIDE C-401.05	521	§ 835.209 (b) (1)
GUIDE C-401.05	521	§ 835.209 (b) (2)
GUIDE C-401.05	521	§ 835.209 (b) (3)
GUIDE C-401.05	521	§ 835.402 (c) (1)
GUIDE C-401.05	521	§ 835.402 (c) (2)
GUIDE C-401.05	521	§ 835.402 (c) (3)
GUIDE C-401.05	521	§ 835.402 (c) (4)
GUIDE C-401.05	522	§ 835.402 (d)
GUIDE C-401.05	522	§ 835.402 (d) (1)
GUIDE C-401.05	522	§ 835.402 (d) (2)
GUIDE C-401.05	551	§ 835.401 (a) (1)
GUIDE C-401.05	551	§ 835.401 (a) (2)
GUIDE C-401.05	551	§ 835.401 (a) (3)
GUIDE C-401.05	551	§ 835.401 (a) (4)

<u>Procedure Name</u>	<u>Procedure Section</u>	<u>10 CFR 835 Section</u>
GUIDE C-401.05	551	§ 835.401 (a) (5)
GUIDE C-401.05	551	§ 835.401 (a) (6)
GUIDE C-401.05	551	§ 835.401 (b) (4)
GUIDE C-401.05	551	§ 835.704 (e)
GUIDE C-401.05	554	§ 835.1101 (a) (2)
GUIDE C-401.05	555	§ 835.403 (a) (1)
GUIDE C-401.05	555	§ 835.403 (a) (2)
GUIDE C-401.05	555	§ 835.403 (b)
GUIDE C-401.05	562	§ 835.401 (b) (1)
GUIDE C-401.05	562	§ 835.401 (b) (2)
GUIDE C-401.05	562	§ 835.401 (b) (3)
GUIDE C-401.06	613	§ 835.901 (b)
GUIDE C-401.06	622	§ 835.901 (d)
GUIDE C-401.06	622	§ 835.901 (d) (1)
GUIDE C-401.06	622	§ 835.901 (d) (2)
GUIDE C-401.06	632	§ 835.901 (a) (1)
GUIDE C-401.06	632	§ 835.901 (a) (2)
GUIDE C-401.06	632	§ 835.901 (b) (1)
GUIDE C-401.06	632	§ 835.901 (b) (2)
GUIDE C-401.06	Appendix 6-1	§ 835.901 (e)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (a)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (c)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (c) (1)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (c) (2)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (c) (3)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (c) (4)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (c) (5)
GUIDE C-401.06	Appendix 6-2	§ 835.901 (c) (6)
GUIDE C-401.07	712	§ 835.701 (a)
GUIDE C-401.07	712	§ 835.703 (a)
GUIDE C-401.07	712	§ 835.703 (c)

<u>Procedure Name</u>	<u>Procedure Section</u>	<u>10 CFR 835 Section</u>
GUIDE C-401.07	712	§ 835.704 (f)
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Attachment D

10 CFR 835 to Rocketdyne Procedure Cross-reference

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Attachment E

DOE-OAK Review Comments and Responses

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
<p>The RPP lacks introductory paragraphs that should have provided an overview of the ETEC program as it currently stands.</p>	<p>The information has been summarized in the overview to the Radiation Protection Plan. Additional information is provided in the specific response to § 835.101(d):</p>
<p>1) Work activities currently utilizing radioactive materials or radiation-generating devices should be described.</p>	<p>Current work activities are described in the detailed discussion of § 835.101(d). They are:</p> <ol style="list-style-type: none">1) Decontamination and decommissioning of radioactively contaminated facilities, equipment and grounds;2) Volume reduction, packaging, and shipment of radioactive wastes;3) Treatment and packaging of certain types of mixed hazardous wastes resulting from D&D operations.4) Repair and calibration of radiation detection equipment.5) Final surveys and release of previously contaminated facilities and grounds.6) Radiological analysis laboratory facilities7) Support operations for the above activities.

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
2) Information on the extent of soil contamination and planned decontamination activities should be provided.	<p>At this writing, Rocketdyne has release 25 former radiological facilities from radiological controls. Three major facilities are schedule for release. These are:</p> <ol style="list-style-type: none">1) Building 59; former SNAP reactor test facility. Demolition of the uncontaminated sections is scheduled to begin in the spring of CY 2000. When the uncontaminated sections are removed, then the contaminated sections will be demolished and disposed of as radioactive waste. It is anticipated that the building will be completely removed by the summer of CY 2001.2) Building 24; former SNAP reactor test facility. The building is scheduled for demolition in the spring of CY 2002.3) RMHF; the Radioactive Materials Handling Facility. This facility is currently active, and will be used for waste handling for the other decontamination and decommissioning (D&D) projects. Some D&D of RMHF facility structures will start in the summer of CY 2000, and the facility is scheduled for demolition in CY 2006.4) General Areas. Several areas at the site are being surveyed to verify their current radiological status. If contamination is found in these areas, it will be excavated and removed as radioactive waste. At this writing, an area on the northeastern slope of the RMHF facility will require some excavation.

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
<p>3) The waste processing and storage activities should be described, in addition to the volume and type of wastes currently in storage; and,</p> <p>4) The facilities that are under decommissioning or planned for future decontamination activities should be described.</p>	<p>D & D activities generate significant volumes of low-level radioactive wastes. These wastes are characterized, processed, packaged, and shipped from the RMHF or at the facility undergoing D&D. The general types of wastes and the estimated volumes at this writing are:</p> <ol style="list-style-type: none"> 1) Low Level Waste (LLW): 5,897 cu ft. 2) Transuranic Waste: 52 cu. ft. 3) Mixed Transuranic Waste: 340 cu. ft. 4) Mixed Low Level Wastes: 600 cu. ft. <p>[See Item 2.]</p>
<p>ETEC/Rocketdyne needs to specify any exemptions or exceptions that are currently in place. It should also indicate whether exceptions or exemptions are contemplated for the future.</p>	<p>Exemptions</p> <ul style="list-style-type: none"> • Rocketdyne was exempted from requiring a written exam for General Employee Radiological Training (GERT) under the previous version of the regulations. As GERT is no longer specified in the amended regulations, this exemption will no longer be applicable. <p>Exceptions</p> <ul style="list-style-type: none"> • Rocketdyne currently has an exception under DOELAP for External Dosimetry (see Compliance section for § 835.402 (b)) • Rocketdyne intends to seek exceptions under DOELAP for Internal Dosimetry (see Compliance section for § 835.402 (d))

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
A compliance matrix showing the status of compliance with each regulatory provision was not provided.	The RPP has been amended to provide this information. A summary of the compliance assessment is provided in Attachment B.
835.101(d) – ETEC needs to provide more information on radiological work activities as requested above; where are the radiography devices and are they still in use?	Rocketdyne provide additional information in the RPP and earlier in this table. Specifically, the radiography sources and cameras are in secure storage in Building 24. It is anticipated that these sources will be taken by J. L. Shepard, Inc., for recycling in the near future. No source radiography is conducted by Rocketdyne personnel. Source radiography is performed by personnel licensed by the State of California to perform such activities.
835.101(f) – Plans, procedures, and timelines need to be submitted for those regulatory requirements where full compliance has not been achieved. Such areas include internal dosimetry. OAK will expect ETEC to meet the milestones unless an extension is granted prior to the expiration date of the milestone.	A full set of Rocketdyne System of Procedures (RSOP) documents was made available for inspection. Schedules and timelines are provided in § 835.101(f).
835.103 – Training and qualification of the radiological control technicians was not addressed in Section 142 of RSOP C-401.001	Training criteria for Technicians is provide in RSOP C-401.006.
835.202(b) – Table 2-1 in C-401.002 does not address the requirement.	The Table will be modified. The revision schedule for procedure updates is listed in § 835.101(f).
835.203 – Table 2-1 in C-401.002 does not address the requirement.	The Table will be modified. The revision schedule for procedure updates is listed in § 835.101(f).

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
835.401(b)(1) – Section 562, C-401 provides calibration frequencies for pocket and electronic dosimeters, but fails to provide such information for survey meters, air samplers, etc.	The procedure will be clarified. The revision schedule for procedure updates is listed in § 835.101(f).
835.402(a)(1)(i) – Section 511(1)(a) of C-401 should read as “---whole body dose of 100 mrem or more---“, or ---	The wording of the section will be corrected. The revision schedule for procedure updates is listed in § 835.101(f).
835.402(c)(1) – Section 521(1)(a) should read as “---100 mrem or more in a year---“. The last paragraph of this section indicates that air sampling data and other workplace indicators may be used to assess dose. This statement contradicts the requirements of 835.209(b). If ETEC intends to pursue this approach, a documented air monitoring program needs to be submitted.	Procedure RS-00013, “Workplace Air Sampling for Radioactive Aerosols,” was provided to the inspector. The issue regarding the use of air sampling data vis a vis bioassay data was resolved. Some procedure clarifications will be made. The revision schedule for procedure updates is listed in § 835.101(f).

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
<p>835.402(d)(1) – The compliance statement says that ETEC/Rocketdyne will pursue an exception from DOELAP. An exception will only be considered if a vendor with an equivalent accreditation is available and its services utilized for the chemistry and analytical portions of the bioassay program. And even with a DOELAP exception, ETEC/Rocketdyne will still need to develop a documented internal dosimetry program that must be accredited at least on the administrative portion of the program.</p> <p>ETEC needs to submit plans, procedures, and milestones for obtaining the exception. An exemption application is an option that is also available if the potential for a worker to exceed 100 mrem in a year does not exist.</p>	<p>The issue was discussed at length with the inspector. Rocketdyne's experience is that it is very unlikely that any individual will meet or exceed 100 mrem CEDE in a year. Accordingly, it believes an exception is a legitimate request, and will seek an exception. A procedure for internal dosimetry has been prepared, and was reviewed by the inspector. Some needed modification were identified. The steplist and timeline are provided in § 835.101(f).</p>
<p>835.402(d)(2) – ETEC has the option of simultaneously pursuing a Secretarial Officer determination but plans, procedures, and timelines need to be submitted. A Secretarial determination has to be in place by January 1, 2001.</p>	<p>ETEC does not plan to pursue a Secretarial Determination at this time.</p>
<p>835.403(a)(2) – If not already in existence, ETEC/Rocketdyne needs to maintain a documented respiratory protection program.</p>	<p>ETEC maintains a documented respiratory protection program. The procedures covering the program are SOP C-320, "Respiratory Protection Program," and GUIDES.</p>

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
835.405 – This section of the regulations covers all in-coming radioactive packages to a DOE facility regardless of where the package originated. The compliance statement needs to be reworked or removed.	The issue has been further addressed and is now resolved. SOP C-405 will address the issue. The steplist and timeline are provided in § 835.101(f).
RSOP C-401 is missing sections 347 through 401. C401.007 is missing Sections 714 through 720.	A copy of the complete RSOP was provided that contained the missing sections.
835.405(a thru d) – the compliance statement references RSOP C-405, but the document was not provided. You should compare 10 CFR 20.1906 against 10 CFR 835 to ensure that the former is equivalent or more restrictive than the latter.	RSOP C-405 has been amended and is in the review and approval process at this writing.
835.502(b) – Appendix 3B(1)(e) of C-401 is not part of the options suggested in the regulations. Also, Appendix 3B(2) statement does not address what 835.502(c) requires.	The requirements are applicable to facilities covered by the State of California Title 17. The procedure statement will be modified accordingly. The steplist and timeline are provided in § 835.101(f).

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
<p>835.603 – If posting is as indicated in Table 4-1 of C-401.004, then ETEC/Rocketdyne needs to develop a supplemental program to control radioactive materials and containers not meeting the radioactive materials area posting criteria and such a program should include methods of warning individuals of the presence of radioactive materials.</p> <p>The use of Table 4-1 would require ETEC/Rocketdyne to maintain two different posting criteria for the same workers. It is suggested that the California posting and labeling regulations be implemented in place of the DOE version.</p>	<p>Rocketdyne agrees, and has modified its Compliance section to § 835.603 accordingly.</p>
<p>835.603(a) – C401.002, Table 2-3, Column 3 - Remove the inside quotation marks between “Caution” and “Radiation.”</p>	<p>The procedure will be modified. The steplist and timeline are provided in § 835.101(f).</p>
<p>835.603(c/d/e/f) – see 603(a) relative to inside quotation marks.</p>	<p>(See above)</p>
<p>Section 234 is missing from the proposed C401 (attachment c) update. Is “nested” Radiation/High Radiation Area going to be addressed elsewhere?</p>	<p>The procedure will be corrected. The steplist and timeline are provided in § 835.101(f).</p>
<p>In the old section 234, it appears that the order of posting for “nested” Radiation/High Radiation Area is in a reverse order. Shouldn’t you be posting against the higher hazard instead?</p>	<p>The procedure will be clarified. Rocketdyne will need to contact the State of California for clarification, as this is a practice permitted under California Title 17 and is the basis for the approach. The steplist and timeline are provided in § 835.101(f).</p>

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
835.604(b)(2) - See comments in 835.603.	(See response in § 835.603, above)
835.606(a)(2) - See comments in 835.603. OAK thinks that 480 mCi of C-14, 400 mCi of S-35, and 16 Ci of H-3 are too high to be exempted from labeling. OAK's concern is not with respect to the potential dose but rather on the potential for contamination that could result from improper storage or use.	(See response in § 835.603, above)
835.701(a) – The Compliance statement says that ETEC/Rocketdyne will comply with 835 requirements but the “should” statement in Section 712.1 of C401.007 implies that the maintenance of any of the records is merely a recommendation. The word “shall” appears more appropriate.	The procedure will be modified to delineate those records that are required under regulations and those that are maintained as a good practice. The steplist and timeline are provided in § 835.101(f).
ETEC/Rocketdyne's record maintenance shall comply with all the requirements of 835.701, 702, and 703. The statement in Section 712.3 relative to records disposition is overridden by 835 if the disposition criteria in DOE 1324.2A is different from what is required in 835.701.	The procedure will be clarified. The steplist and timeline are provided in § 835.101(f).
835.702 - Section 721, para 3 indicates that dose records are maintained only if a worker is expected to exceed a 100 mrem in a year. This contradicts the requirements of 835.702 (a & b).	The approach was permitted under a ruling by DOE-HQ. See letter Fitzgerald to Gibbs. 3 January 1996). A copy of the letter was provided to the inspector.

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
Section 722 uses a "should" statement where a regulatory requirement exists.	The procedure will be appropriately modified. The steplist and timeline are provided in § 835.101(f).
835.702(d) – The compliance statement does satisfy the regulatory statement. The requirement for documentation of a prior dose does not have a dose threshold.	(See the response to 835.702, above.)
835.702(f & h) – The addendum to the compliance statement should be removed.	The compliance statements were modified as suggested.
835.801(c) - The first paragraph of addendum to the compliance statement needs to be rephrased. It is not clear what the radiation safety discretion covers. Is it for people who are not required to be monitored? The statement could be rephrased to say "----- such a device may also be issued even when not required----". Note: Relative to paragraphs 2 and 3, ETEC/Rocketdyne's determination of who needs to be monitored must be based on a prospective determination and not after the exposure has occurred. The three paragraphs need to be rephrased to reflect what the regulation requires.	The compliance statements were appropriately modified.

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
835.901(a) - Section 632, Appendix 6-1 fails to discuss General Employee training.	GERT is not specifically mandated by the amended regulations. Rocketdyne permits only qualified radiation workers to have unescorted access to controlled areas, thus the need for GERT at this site does not exist and is not addressed in the program.
835.901(c) - Appendix 6-2 does not cover all that are stipulated in 835.901(c)	The Rocketdyne training covers these topics. The procedure does not currently list the subjects that are stated in the regulation. The procedure (Appendix 6-2) will be amended to specifically include each of the topics listed in the regulation.
835.1002(c) - The assumption in the compliance statement is incorrect. The decontamination and waste processing facilities are covered by this requirement	The compliance statement has been modified.

<u>DOE-OAK Comments</u>	<u>Rocketdyne Response</u>
<p>835.1202 - OAK needs to review ETEC/Rocketdyne's program for managing non-accountable sealed sources. OAK views some of the threshold levels in Appendix E of 835 as too high, not for their radiation exposure but on the consequences of loss, leakage, and contamination. A Ni-63 source with an activity of 3.1 Ci is a little too high not be officially accounted for; the same goes for 159 Ci of H-3 or 1.0 mCi of Ra-226.</p> <p>An additional consequence of Appendix E relates to the management of General License (GL) devices obtained under 10 CFR 31. These devices are required to be registered, accounted for and leak-tested where appropriate. If ETEC/Rocketdyne follows appendix E, then some of these devices including gas chromatograph and self-luminous products obtained under 10 CFR 31.5 will no longer be accounted for and used per manufacturer's instructions.</p> <p>EH-52 is reviewing this safety gap and will shortly issue a technical position paper addressing the problem.</p>	<p>ETEC will apply California Code of Regulation Title 17 requirements for labeling and control of radioactive sources in lieu of 10 CFR 835 criteria.</p>

Attachment F

DOE-EM Review Comments and Responses

<u>DOE-EM Comments</u>	<u>Rocketdyne Response</u>
<u>Cover Page:</u> The document is entitled the "Radiation Protection Plan." 10 CFR 835.101 requires submission and approval of a "documented radiation protection program." The relationship between the submitted "plan" and "program" is unclear.	The original submittal was provided for an initial review and comment. The final document provides the elements required by 10 CFR 835.
<u>Cover Page:</u> The document is marked "Proposed" and does not bear any controlled document number, revision number, or signatures. Is this an official submittal.	The submittal was unofficial. It was intended to serve as the starting point for the discussions of the Rocketdyne program elements. Rocketdyne did not believe it prudent to submit a final plan until it had completed discussions with DOE-OAK, and had reached agreement on the extent and content of the new program needed for implementation of the amended 10 CFR 835.
<u>Section 7.0, last paragraph on Page 5:</u> This sort of statement regarding what constitutes compliance or non-compliance is inappropriate and probably meaningless. The compliance status will ultimately be decided through an iterative process of contractor implementation, DOE management and oversight, and assessment of adverse or questionable conditions by DOE's Office of Enforcement. This sort of statement in the RPP will not affect that process.	The section has been modified.
<u>App. A, 835.101(f):</u> This sort of statement regarding what constitutes compliance or non-compliance is inappropriate and probably meaningless. The compliance status will ultimately be decided through an iterative process of contractor implementation, DOE management and oversight, and assessment of adverse or questionable conditions by DOE's Office of Enforcement. This sort of statement in the RPP will not affect that process.	The statement has been amended.

<u>DOE-EM Comments</u>	<u>Rocketdyne Response</u>
<u>App. A, 835.601(c)</u> : The compliance statement is not clear with regard to whether or not ETEC postings will always be consistent with those required by 10 CFR 835.	The statement has been modified to be more clear.
<u>App. A, 835.702(d)</u> : The compliance statement seems to rely on circular logic. If one does not have the documentation of an individual's previous dose, how does one know whether or not the individual's dose exceeds 100 millirem?	One obtains a signed statement of the individual with an estimate of his current annual dose, but does not necessarily seek dose records from previous employers. The compliance statement has been clarified. The reviewer is also directed to the DOE letter permitting this approach (Fitzgerald to Gibbs; 3 January 1996.)
<u>App A, 835.702(f)</u> : The rule does not require that the records be given to the individual, only that they be "made available" to the individual.	The compliance statement has been clarified.
<u>App A, 835.702(h)</u> : The compliance statement is unclear with regard to the fate of the records. 10 CFR 835 requires that they be transferred to DOE, regardless of the decision of the Manager, Radiation Safety.	Rocketdyne considers the original copy of records to be business records, and will retain the originals. Rocketdyne will provide copies of any applicable records to the DOE. The statement addresses the transfer of the original records.
<u>App A, 835.801(a)</u> : 10 CFR 835 requires that the report bear the DOE site or facility name. This information may appear in addition to the contractor name, but is mandatory.	The compliance statement has been modified. Rocketdyne will amend its reports to include the ETEC/DOE information.
<u>App A, 835.801(c)</u> : The issues of mandatory vs. non-mandatory individual monitoring and when these decision must be made have arisen frequently, occasionally in relation to enforcement actions. ETEC should ensure that this position is consistent with DOE-EH views on this subject.	Rocketdyne has discussed the issue with DOE-OAK at some length. Rocketdyne believes that the approach described in the RPP addresses the issue.

<u>DOE-EM Comments</u>	<u>Rocketdyne Response</u>
<p>App A, 835.1002: Some technical clarification from EH may be necessary to determine whether or not D&D are considered "modifications."</p>	<p>Rocketdyne has amended the compliance statement. It continues to believe, however, that D&D presents situations where one must improvise approaches using a combination of engineering and administrative control philosophies. (Reference DOE Radiological Controls Manual, Chapter 3, Part 7). It has concerns that a broad interpretation of "modification" could be (improperly) applied to D&D activities, and could create situations where strict adherence to the regulatory language could not be readily attained. A clarification of the intent of the regulation would be useful.</p>