NRC FORM 464 Part I (08-2013)	U.S. NUCLEAR REGULATORY COMMISSION	FOIA/PA	RESPONSE NUMBER
RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST		2014-0288	1
		RESPONSE TYPE ☑ FINAL ☐ PARTIAL	
REQUESTER Alan Yelvington		DATE JUL 29 2014	

PART I. -- INFORMATION RELEASED

☐ No additional agency records subject to the request have been located.

☐ Requested records are available through another public distribution program. See Comments section.

☐ GROUP ____ Agency records subject to the request that are identified in the specified group are already available for public inspection and copying at the NRC Public Document Room.

☑ GROUP A Agency records subject to the request that are contained in the specified group are being made available for public inspection and copying at the NRC Public Document Room.

☐ GROUP ____ Agency records subject to the request are enclosed.

☐ Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.

☐ We are continuing to process your request.

☑ See Comments.

PART I.A -- FEES

AMOUNT*
$ 0.00
* See comments for details

☐ You will be billed by NRC for the amount listed.

☐ You will receive a refund for the amount listed.

☑ None. Minimum fee threshold not met.

☐ Fees waived.

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

☐ No agency records subject to the request have been located. For your information, Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA. See 5 U.S.C. § 552(c) (2006 & Supp. IV (2010). This response is limited to those records that are subject to the requirements of the FOIA. This is a standard notification that is given to all our requesters and should not be taken as an indication that excluded records do, or do not, exist.

☑ Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.

☑ This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

This incoming FOIA request will be made available in ADAMS at ML14163A541.

Records with an ML accession number are available in ADAMS at http://www.nrc.gov/reading-rm/adams.html. For assistance in obtaining any public records, please contact the NRC's Public Document Room (PDR) at 1-800-397-4209 or by email at PDR.Resource@nrc.gov.

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Nina Argent Nina Argent

NRC FORM 464 Part II
(08-2013)

U.S. NUCLEAR REGULATORY COMMISSION

RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

FOIA/PA 2014-0288

DATE JUN 2 9 2014

PART II.A -- APPLICABLE EXEMPTIONS

GROUP A

Records subject to the request that are contained in the specified group are being withheld in their entirety or in part under the Exemption No.(s) of the PA and/or the FOIA as indicated below (5 U.S.C. 552a and/or 5 U.S.C. 552(b)).

- ☐ Exemption 1: The withheld information is properly classified pursuant to Executive Order 12958.
- ☐ Exemption 2: The withheld information relates solely to the internal personnel rules and practices of NRC.
- ☐ Exemption 3: The withheld information is specifically exempted from public disclosure by statute indicated.
  - ☐ Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
  - ☐ Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
  - ☐ 41 U.S.C., Section 4702(b), prohibits the disclosure of contractor proposals in the possession and control of an executive agency to any person under section 552 of Title 5, U.S.C. (the FOIA), except when incorporated into the contract between the agency and the submitter of the proposal.
- ☐ Exemption 4: The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated.
  - ☐ The information is considered to be confidential business (proprietary) information.
  - ☐ The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.390(d)(1).
  - ☐ The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.390(d)(2).
  - ☐ Disclosure will harm an identifiable private or governmental interest.
- ☐ Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
  - ☐ Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
  - ☐ Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
  - ☐ Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- ☐ Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- ☑ Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
  - ☐ (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrong doing or a violation of NRC requirements from investigators).
  - ☐ (C) Disclosure could constitute an unwarranted invasion of personal privacy.
  - ☐ (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
  - ☐ (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
  - ☑ (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- ☐ OTHER (Specify)

PART II.B -- DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECY	IG
James Wiggins	Office Director, NSIR	Group A	☑	☐	☐
			☐	☐	☐
			☐	☐	☐

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

Group A

FOIA/PA NO: 2014-0288

RECORDS BEING RELEASED IN PART

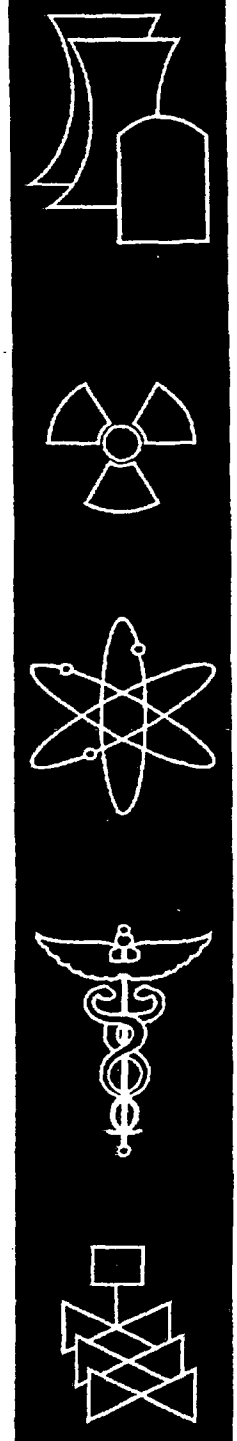
The following types of information are being withheld:

Ex. 1: ☐ Records properly classified pursuant to Executive Order 13526
Ex. 2: ☐ Records regarding personnel rules and/or human capital administration
Ex. 3: ☐ Information about the design, manufacture, or utilization of nuclear weapons
☐ Information about the protection or security of reactors and nuclear materials
☐ Contractor proposals not incorporated into a final contract with the NRC
☐ Other_____
Ex. 4: ☐ Proprietary information provided by a submitter to the NRC
☐ Other_____
Ex. 5: ☐ Draft documents or other pre-decisional deliberative documents (D.P. Privilege)
☐ Records prepared by counsel in anticipation of litigation (A.W.P. Privilege)
☐ Privileged communications between counsel and a client (A.C. Privilege)
☐ Other_____
Ex. 6: ☐ Agency employee PII, including SSN, contact information, birthdates, etc.
☐ Third party PII, including names, phone numbers, or other personal information
Ex. 7(A): ☐ Copies of ongoing investigation case files, exhibits, notes, ROI's, etc.
☐ Records that reference or are related to a separate ongoing investigation(s)
Ex. 7(C): ☐ Special Agent or other law enforcement PII
☐ PII of third parties referenced in records compiled for law enforcement purposes
Ex. 7(D): ☐ Witnesses' and Allegers' PII in law enforcement records
☐ Confidential Informant or law enforcement information provided by other entity
Ex. 7(E): ☐ Law Enforcement Technique/Procedure used for criminal investigations
☐ Technique or procedure used for security or prevention of criminal activity
Ex. 7(F): ■ Information that could aid a terrorist or compromise security

Other/Comments:_____

NO.	DATE	DESCRIPTION (PAGE COUNT)
1.	5/2000	NUREG/CR-6667, "Standard Review Plan for Safeguards Contingency Response Plans for Category I Fuel Facilities" (72 pages)

NUREG/CR-6667



Standard Review Plan for Safeguards Contingency Response Plans for Category I Fuel Facilites

Science & Engineering Associates, Inc.

Experimental Engineering Corporation

U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Washington, DC 20555-0001

AVAILABILITY OF REFERENCE MATERIALS IN NRC PUBLICATIONS

NRC Reference Material

As of November 1999, you may electronically access NUREG-series publications and other NRC records at NRC's Public Electronic Reading Room at www.nrc.gov/NRC/ADAMS/index.html. Publicly released records include, to name a few, NUREG-series publications; *Federal Register* notices; applicant, licensee, and vendor documents and correspondence; NRC correspondence and internal memoranda; bulletins and information notices; inspection and investigative reports; licensee event reports; and Commission papers and their attachments.

NRC publications in the NUREG series, NRC regulations, and *Title 10, Energy*, in the Code of *Federal Regulations* may also be purchased from one of these two sources.

1. The Superintendent of Documents
   U.S. Government Printing Office
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   Washington, DC 20402–9328
   www.access.gpo.gov/su_docs
   202–512–1800
2. The National Technical Information Service
   Springfield, VA 22161–0002
   www.ntis.gov
   1–800–533–6847 or, locally, 703–805–6000

A single copy of each NRC draft report for comment is available free, to the extent of supply, upon written request as follows:

Address: Office of the Chief Information Officer,
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Washington, DC 20555-0001
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Some publications in the NUREG series that are posted at NRC's Web site address www.nrc.gov/NRC/NUREGS/indexnum.html are updated regularly and may differ from the last printed version.

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Copies of industry codes and standards used in a substantive manner in the NRC regulatory process are maintained at—

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Rockville, MD 20852–2738

These standards are available in the library for reference use by the public. Codes and standards are usually copyrighted and may be purchased from the originating organization or, if they are American National Standards, from—

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NUREG/CR-6667

Standard Review Plan
for Safeguards Contingency Response Plans for Category I Fuel Facilities

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ABSTRACT

This document is a Standard Review Plan (SRP) for evaluating Safeguards Contingency Response Plans for Category I fuel facilities. Conducting a review according to an SRP ensures that license applicants address every pertinent U.S. Nuclear Regulatory Commission (NRC) requirement in their NRC-approved Safeguards Contingency Response Plans and ensures consistency and comprehensiveness in the NRC review of the plans. The information presented here utilizes a "modular" format to streamline the information and facilitate its use.

CONTENTS

1. INTRODUCTION

1.1 Background and Applicability

The Energy Reorganization Act of 1974 required the NRC to develop Safeguards Contingency Response Plans for dealing with threats, thefts, and sabotage relating to special nuclear materials, high-level radioactive wastes and nuclear facilities resulting from activities licensed under the Atomic Energy Act of 1954, as amended. In SECY-77-141, March 11, 1977, the Office of Nuclear Material Safety and Safeguards (NMSS) informed the NRC Commissioners that it was addressing contingency planning from the national perspective and had begun negotiations with other Federal agencies to provide a coordinated response by all pertinent agencies. It also recommended that a rule be promulgated to require onsite contingency planning by licensees, since they would have the primary role in many safeguards contingencies.

A proposed rule was published on May 19, 1977, seeking public comments. SECY-77-141B, December 15, 1977, addressed the public comments and proposed a final rule. A final rule was published in the Federal Register on March 23, 1978, requiring licensees to develop Safeguards Contingency Response Plans and procedures for protection of Category I quantities of strategic special nuclear material (SSNM) at fixed sites or in transportation and for protection of nuclear power reactors. This rulemaking established a new Appendix C to 10 CFR 73 that specifies the contingency measures that a licensee must observe and to which it must commit in a NRC-approved plan.

A draft Regulatory Guide 5.55, *Standard Format and Content Guide of Safeguards Contingency Plans for Category I Fuel Cycle Facilities,* was published for public comment in March 1978. It was never issued in final form. Experience with Safeguards Contingency Response Plans prepared in accordance with the guidance contained in Regulatory Guide 5.55 indicates that they can be unnecessarily complex. Simplifying the Safeguards Contingency Response Plans could be beneficial to both the NRC and the licensees. The information in this SRP supersedes the guidance provided in the draft Regulatory Guide 5.55.

1.2 Redundancies With Physical Security Plan

SECY-77-141B identified as the major issue whether the rule should be published immediately or delayed to integrate it with other rulemakings, including one being prepared to upgrade physical security at Category I fuel facilities. The physical security upgrade rule had been published for public comment on July 5, 1977, about 7 weeks after the proposed contingency planning rule was published.

Commentators reasoned that these other rules in progress could impact Safeguards Contingency Response Plans and require subsequent revisions. The NRC staff responded that only the physical security upgrade rule could possibly cause some subsequent revision to the new Safeguards Contingency Response Plans, and that the

changes would not be extensive. The staff also responded that the description of response actions in the then-current Physical Security Plans were for the most part so generalized, brief, and void of detail as to be virtually meaningless. Therefore, they would have to be revised and expanded extensively to satisfy the proposed Appendix C.

The final contingency planning rule was published in the Federal Register on March 23, 1978. The physical security upgrade rule was published November 28, 1979. It introduced many redundancies with the contingency planning requirements, particularly with respect to the Licensee Planning Base section of the Safeguards Contingency Response Plan. More recently, on November 10, 1988, the NRC published a rulemaking consisting of a number of upgrades applicable to Category I fuel facilities to maintain comparability with like facilities of the Department of Energy. These upgrades required amendments to the Physical Security Plan, which introduced additional redundancies with the Safeguards Contingency Response Plan. These redundancies are identified and discussed in the appropriate modules of this SRP.

1.3 Purpose of Document

This document is an SRP for use by NRC license reviewers in evaluating Safeguards Contingency Response Plans for Category I fuel facilities, prepared pursuant to 10 CFR 70.22(j)(1), 10 CFR 73.20(c), and 10 CFR 73.46(h). The SRP contains the requirements that an applicant or licensee must meet and address in its Safeguards Contingency Response Plan and also contains additional information to be used as guidance in the implementation of the regulations. The NRC staff uses the SRP to assure comprehensive and consistent license reviews.

There were two objectives in issuing this SRP. The first objective was to provide guidance on ways to simplify Safeguards Contingency Response Plans so they will be more user friendly and more useful to licensees and the NRC staff. Both the Physical Security Plan and the Safeguards Contingency Response Plans are important licensee commitment documents, and serve different purposes in enabling the NRC to license a Category I fuel cycle facility. The Safeguards Contingency Response Plan and the Physical Security Plan should also be considered in conjunction with the licensee's Training and Qualifications (T&Q) Plan for security personnel, which describes the licensee's commitments to assuring that all security personnel are trained and qualified to carry out their assigned security duties and responsibilities, including those personnel whose assignments include responding to a safeguards contingency event. As previously indicated, simplifying the Safeguards Contingency Response Plans could be beneficial to both the NRC and the licensees.

The second objective was to provide additional guidance to applicants and the NRC staff on factors to be considered in developing and approving Safeguards Contingency Response Plans for new licensed activities or facilities, which might require a license amendment at an existing facility, or a new license for a new facility. While addressing

current NRC and licensee considerations, this SRP is also forward-looking for possible new facility licensing actions.

This document is of use to license applicants or licensees seeking an amendment to their license because it presents a format acceptable to NRC for the required Safeguards Contingency Response Plan and concisely describes the requirements that the applicant or licensee must meet.

1.4 Description of Document

This document contains eight modules that include the major elements of Safeguards Contingency Response Plans for meeting the requirements of 10 CFR 73, Appendix C.

- Module I describes the requirements for a Safeguards Contingency Response Plan in demonstrating achievement of the performance objective for physical protection at a Category I fuel cycle facility, the categories of information which the plan must include, how changes to an approved plan can be made, document retention requirements, the goals for the plan, and the general requirements for the plan to be acceptable to NRC.

- Module II describes the required contents of a Safeguards Contingency Response Plan, and what is required for inclusion in the implementing procedures that are separate from the plan submitted to NRC.

- Module III describes the statement the plan must make with regard to the perceived danger to the SSNM and the NRC design basis threat statements for radiological sabotage and theft, the general aims and operational concepts of the contingency response delineated in the plan, and the types of incidents covered in the plan.

- Module IV describes the Generic Planning Base for the plan, which includes identifying in the plan the events that will be used by the licensee for signaling the beginning or aggravation of a safeguards contingency, and the specific objectives the licensee commits to achieve relative to each identified event.

- Module V describes the Licensee Planning Base, in which the licensee describes the organizational structure for contingency response, features of the physical layout of the facility and site that affect contingency response, the safeguards system hardware that influence how the licensee will respond to a safeguards contingency event, the contingency response arrangements with local law enforcement, policy considerations (including state and local laws) that affect contingency response, licensee logistical practices to support effective contingency response, the size and availability of the licensee's Tactical Response Team (TRT), and the licensee response to abnormal presence or activity.

- Module VI describes the licensee's Responsibility Matrix for contingency response, which must include identification of the organizational entities responsible for each decision and action associated with specific responses to safeguards contingency events.

- Module VII addresses the contents of the detailed implementing procedures for responding to safeguards contingencies, and describes NRC expectations of the licensee for assuring that all organizational entities involved in responding to a safeguards contingency understand their responsibilities and the responsibilities of others in this contingency response.

- Module VIII describes the requirements for independent audit of the Safeguards Contingency Response Plan and documentation of the results of such audits, and provides guidance on what such audits should entail.

The plans must meet the intent of every requirement presented in each module. Following each module is a "guidance" section that contains supplemental information on the NRC's interpretation of the regulations, acceptable means for meeting the regulation, and other pertinent information. Five appendices contain recommendations on plan format, a user's glossary, a sample license condition, an example Responsibility Matrix, and a discussion of certain considerations related to future facilities.

1.5 Modular Format

This SRP has been developed in a new modular format. This effort is part of a new initiative by the NRC to simplify, and gain efficiencies in, the NRC licensing process by presenting information in a user-friendly format.

1.6 Protection of Plan

Safeguards Contingency Response Plans for Category I fuel facilities should be protected in accordance with the provisions of 10 CFR 73.21. "Requirements for the Protection of Safeguards Information," or 10 CFR 95, "Security Facility Approval and Safeguarding of National Security Information and Restricted Data," if the Safeguards Contingency Response Plan contains National Security Information or Restricted Data.

2. BASIC STEPS IN THE PHYSICAL PROTECTION LICENSING PROCESS

2.1 New Facilities and 10 CFR 70.34 Amendments

There are four steps in the NRC evaluation of Safeguards Contingency Response Plans required to be submitted by NRC regulations: submittal; initial review; final review; and issuance of a license condition. Essentially the same process occurs when a licensee chooses to amend an existing Safeguards Contingency Response Plan, in accordance with the provisions of 10 CFR 70.34. In the case of simple amendments, the process may not need to be iterative.

The submittal process can be prompted by an application for a license for a new facility, a major addition or modification to an existing facility, or a modification to an existing Safeguards Contingency Response Plan. The submittal process can also be prompted by the issuance of a new rule or amendments to an existing regulation. During this process, the applicant or licensee develops its protection strategy for meeting the new conditions, documents it, and submits it to the NRC licensing staff for review and comment.

The initial review process is an iterative process in which discussions take place between the NRC and the licensee or applicant to arrive at a proposal acceptable to the NRC. A number of proposals may be submitted and evaluated during this process. The licensing review, guided by an SRP, ensures that the proposal agreed to is adequate and sufficient in meeting NRC requirements.

The licensee or applicant then makes a formal and final submittal of its proposal. License reviewers document their formal review of the proposal in a Safeguards Evaluation Report (SER), which is stored and maintained on file for the life of the license.

The review of a proposed Safeguards Contingency Response Plan ends when a license condition is attached to the main license, or an existing license condition is amended. The license condition formally requires compliance with the plan that contains the commitments made by the licensee or applicant to meet the new or amended proposal. This license condition becomes a permanent part of the license, unless it is amended at some future time. Alternative ways for applicants or licensees to commit to their Safeguards Contingency Response Plans are discussed in Section 2.3 below.

2.2 Safeguards Contingency Response Plan Revisions Using 10 CFR 70.32(g)

Safeguards Contingency Response Plans also may be revised using the provisions of 10 CFR 70.32(g), that allow licensees to make changes without prior approval by the NRC if the changes do not decrease the safeguards effectiveness of the plan. A report

containing a description of each change must be submitted to the NRC within 60 days after the change is made. The NRC staff reviews these revisions and determines whether it agrees that the changes do not decrease the effectiveness of the plan. If the NRC staff agrees, it notifies the licensee. If it does not agree, it notifies the licensee and initiates an iterative process in which discussions take place between the NRC and the licensee either to arrive at a plan revision that NRC agrees does not decrease safeguards effectiveness or to institute a formal licensing review of the proposed revision under 10 CFR 70.34.

Existing licensees may use 10 CFR 70.32(g) and the guidance contained in this SRP to simplify their existing Safeguards Contingency Response Plans. This SRP does not contain any new requirements. Any new guidance in the SRP provides clarification for licensed activities that differ from activities currently licensed. Such clarifications are not a backfit of existing licensed operations. However, any substantive items already in a licensee's Safeguards Contingency Response Plan and recommended in the SRP should not be left out in changes made under 10 CFR 70.32(g).

2.3 Alternative Methods of Committing to Safeguards Contingency Response Plans

At the time that this SRP was prepared, existing licensees had prepared and committed to Safeguards Contingency Response Plans that were separate from their Physical Security Plans and guard training and qualifications plans. However, alternative approaches are available.

A total of 20 of the 23 commentators that responded to the proposed contingency planning rule published on May 19, 1977 complained that Safeguards Contingency Response Plans duplicate other plans. In response, the statement of considerations published with the final rule on March 23, 1978 stated that a licensee could submit a single security-related plan as long as it assures that all requirements of Appendix C have been addressed. Alternatively, Section 3 of Appendix C states that information topics required to be addressed in the Licensee Planning Base may be incorporated by cross reference to the licensee's Physical Security Plan if they are treated in sufficient detail in that plan to meet the intent of Appendix C. In addition, Regulatory Guide 5.55 stated that information in an existing security plan may be incorporated by reference into a Safeguards Contingency Response Plan. Although this SRP supersedes the draft regulatory guide, it also affirms the acceptability of incorporating information from an existing Physical Security Plan into a Safeguards Contingency Response Plan by reference. The NRC encourages elimination of redundancies and will accept either of these alternative methods of preparing and committing to Safeguards Contingency Response Plans.

Appendix C to this document contains a sample license condition that would be incorporated into a license in response to new or amended physical protection requirements or measures. The sample license condition assumes that the licensee's

commitments for contingency planning and for guard training and qualification are incorporated into the licensee's physical protection plan. The licensee may choose to make the commitments for contingency planning and for guard training and qualification in separate plans, with or without reference to its Physical Security Plan.

3. COMPONENTS OF LICENSEE SAFEGUARDS CONTINGENCY RESPONSE PLANS

3.1 MODULE I—INTRODUCTION

3.1.1 Contingency capability and response plan	Each application for a license to possess or use at any site or contiguous sites subject to control by the licensee uranium 235 (contained in uranium enriched to 20 percent or more in the uranium-235 isotope), uranium-233, or plutonium alone or in any combination in a quantity of 5,000 grams or more computed by the formula, grams = (grams contained U-235) + 2.5 (grams U-233 + grams plutonium) other than a license for possession or use of such material in the operation of a nuclear reactor licensed pursuant to part 50 of this chapter, must include a licensee Safeguards Contingency Response Plan for dealing with threats, thefts, and radiological sabotage, as defined in Part 73 of this chapter, relating to ... the possession of special nuclear material licensed under this part. **10 CFR 70.22(j)(1).** To achieve the general performance objective of paragraph (a) of this section, a licensee shall establish and maintain ... a physical protection system that ... includes a safeguards contingency capability that can meet the criteria in appendix C to this part "Licensee Safeguards Contingency Response Plans." **10 CFR 73.20(b)(3).** Each licensee ... shall establish, maintain, and follow NRC-approved ... safeguards contingency plans that describe how the licensee will comply with the requirements of paragraphs (a) and (b) of this section. **10 CFR 73.20(c).** A licensee shall ... (ii) provide for ... planned and predetermined response to emergencies and safeguards contingencies. **10 CFR 73.45(g)(1).** A licensee shall ... establish a predetermined plan to respond to safeguards contingency events. **10 CFR 73.45(g)(2).**

	The licensee shall establish, maintain, and follow an NRC-approved Safeguards Contingency Response Plan responding to threats, thefts, and radiological sabotage related to the SSNM and nuclear facilities subject to the provisions of this section. Safeguards Contingency Response Plans must be in accordance with the criteria in appendix C to this part, "Licensee Safeguards Contingency Response Plans." **10 CFR 73.46(h)(1).**
3.1.2 Contents of response plan	Each application for such a license must include the first four categories of information contained in the applicant's Safeguards Contingency Response Plan. (The first four categories of information, as set forth in appendix C to part 73 of this chapter, are Background, Generic Planning Base, Licensee Planning Base, and Responsibility Matrix.) The fifth category of information, Procedures, does not have to be submitted for approval. **10 CFR 70.22(j)(2).** Safeguards Contingency Response Plans must include, but not limited to (sic), the response requirements listed in paragraphs (h)(2) through (h)(5) of this section. **10 CFR 73.46(h)(1).**
3.1.3 Response plan implementing procedures	The licensee shall prepare and maintain Safeguards Contingency Response Plan procedures in accordance with Appendix C to part 73 of this chapter for bringing about the actions and decisions contained in the Responsibility Matrix of its Safeguards Contingency Response Plan. **10 CFR 70.32(g).**
3.1.4 Changes to the plan	The licensee shall not make a change that would decrease the safeguards effectiveness of the first four categories of information (i.e., Background, Generic Planning Base, Licensee Planning Base, and Responsibility Matrix) contained in any licensee Safeguards Contingency Response Plan prepared pursuant to §§ ... 70.22(j) ... 73.20(c) ... 73.46(h)(1) ... of this chapter without the prior approval of the NRC. A licensee desiring to make such a change shall submit an application for an amendment to its license pursuant to §70.34. The licensee may make changes to the licensee Safeguards Contingency Response Plan without

	prior NRC approval if the changes do not decrease the safeguards effectiveness of the plan. ... and shall furnish a report containing a description of each change within 60 days after the change is made, to the Director of Nuclear Material Safety and Safeguards, with a copy to the Regional Administrator of the appropriate NRC Regional Office as specified in Appendix A to part 73 of this chapter. **10 CFR 70.32(g).** Applications for amendment of a license shall be filed in accordance with §70.21(a) and shall specify the respects in which the licensee desires his license to be amended and the grounds for such amendment. **10 CFR 70.34.**

3.1.5 Record retention	The licensee shall retain a copy of this Safeguards Contingency Response Plan as a record until the NRC terminates each license obtained by this application or any application for renewal of a license, and retain each change to the plan as a record for 3 years after the date of the change. **10 CFR 70.22(j)(3).** The licensee shall retain the current Safeguards Contingency Response Plan procedures as a record for the entire period during which the licensee possesses the appropriate type and quantity of special nuclear material under each license for which the procedures were developed and, if any portion of the plan is superseded, retain that superseded portion for 3 years after the effective date of the change. ... The licensee must maintain each change to the plan made without prior approval as a record during the period for which possession of a formula quantity of special nuclear material is authorized under a license and retain the superseded portion for 3 years after the effective date of the change. **10 CFR 70.32(g).** The licensee shall retain the current Safeguards Contingency Response Plan as a record until the NRC terminates the license and, if any portion of the plan is superseded, retain that superseded portion for 3 years after the effective date of change. **10 CFR 73.46(h)(1).**
	The licensee shall retain documentation of the current arrangements [with local law enforcement authorities] as a record until the NRC terminates each license requiring the arrangements and, if any arrangement is superseded, retain the superseded material for three years after each change. **10 CFR 73.46(h)(2).**

3.1.6 Nature of response plan	A licensee Safeguards Contingency Response Plan is a documented plan to give guidance to licensee personnel in order to accomplish specific defined objectives in the event of threats, thefts, or radiological sabotage relating to special nuclear material or nuclear facilities licensed under the Atomic Energy Act of 1954, as amended. An acceptable Safeguards Contingency Response Plan must contain: (1) a predetermined set of decisions and actions to satisfy stated objectives, (2) an identification of the data, criteria, procedures, and mechanisms necessary to efficiently implement the decisions, and (3) a stipulation of the individual, group, or organizational entity responsible for each decision and action. **10 CFR 73, Appendix C, Introduction, first two sentences.**
3.1.7 Goals of the response plan	The goals of licensee Safeguards Contingency Response Plans for responding to threats, thefts, and radiological sabotage are: (1) to organize the response effort at the licensee level, (2) to provide predetermined, structured responses by licensees to safeguards contingencies, (3) to ensure the integration of the licensee response with the responses by other entities, and (4) to achieve a measurable performance in response capability. **10 CFR 73, Appendix C, Introduction, third sentence.**
3.1.8 Organizing licensee resources for contingency response	Licensee safeguards contingency planning should result in organizing the licensee's resources in such a way that the participants will be identified, their responsibilities specified, and responses coordinated. The responses should be timely. **10 CFR 73, Appendix C, Introduction, second paragraph.**
3.1.9 Interface with emergency plans	It is important to note that a licensee's Safeguards Contingency Response Plan is intended to be complementary to any emergency plans developed pursuant to Appendix E to Part 50 or to §70.22(i) of this chapter. **10 CFR 73, Appendix C, Introduction, third paragraph.**

GUIDANCE:

3.1 This module contains introductory material. Detailed guidance on the commitments that must be made in a plan is provided in modules III through VII.

3.1.1 Each Category I applicant or licensee must establish and maintain a safeguards contingency response capability and establish, maintain, and follow an NRC-approved contingency plan for dealing with threats, thefts, and radiological sabotage that meet the criteria of Appendix C. A single Safeguards Contingency Response Plan satisfies the requirements of the various paragraphs listed in module 3.1.

Sections 73.20(b)(2) and (3) both reference paragraph 73.20(a). Paragraph (a) of 73.20 requires a licensee to establish and maintain a physical protection system, including contingency planning, to provide high assurance of protection against the design basis threats specified in 10 CFR 73.1(a).

If the licensee chooses to submit separate physical security and Safeguards Contingency Response Plans, the licensee should clearly identify that it is doing so.

3.1.2 The provision in 10 CFR 70.22(j)(2) that the detailed implementing procedures do not have to be submitted for NRC licensing approval does not imply that they are less important than the other four categories of information. The rule proposed on May 19, 1977 required the procedures to also be submitted for approval. In response to public comments, the final rule required only the first four categories of information to be submitted to provide licensees flexibility in changes to day-to-day operations. However, the contingency procedures remain a part of the plan and are reviewed by the NRC inspection program to ensure that they conform to the licensee's Responsibility Matrix. (See module 3.2.2.)

The requirement that the Safeguards Contingency Response Plans include the response requirements of Section 73.46(h)(2) through (5) was not part of the original contingency planning rule. It was added as part of the physical security upgrade rule on November 28, 1979. Section 73.46(h)(3) was revised as part of the November 10, 1988 physical security upgrades to add a requirement for a TRT (see module 3.5.7). Sections 73.46(h)(2) through (5) require response arrangements with the Local Law Enforcement Authorities (LLEA), a TRT, threat neutralization, and instruction on the use of deadly force. These provisions are discussed in subsequent modules.

3.1.5 The licensee must comply with the record retention requirements identified in this module.

3.1.6 The predetermined set of decisions and actions to satisfy stated objectives is provided in the Generic Planning Base section of the Safeguards Contingency Response Plan. (See module IV.) The identification of the data, criteria,

procedures, and mechanisms necessary to efficiently implement the decisions is provided in the Licensee Planning Base section of the Safeguards Contingency Response Plan. (See module V.) The stipulation of the individual, group, or organizational entity responsible for each decision and action is provided in the Responsibility Matrix section of the Safeguards Contingency Response Plan. (See module VI.)

3.2 MODULE II—CONTENTS OF THE PLAN	
3.2.1 Categories of information	Each licensee Safeguards Contingency Response Plan shall include five categories of information: 1. Background 2. Generic Planning Base 3. Licensee Planning Base 4. Responsibility Matrix 5. Procedures **10 CFR 73, Appendix C, Contents Of The Plan, first paragraph.**
3.2.2 Implementing procedures	Although the implementing procedures (the fifth category of Plan information) are the culmination of the planning process, and therefore are an integral and important part of the Safeguards Contingency Response Plan, they entail operating details subject to frequent changes. They need not be submitted to the NRC for approval, but will be inspected by NRC staff on a periodic basis. The licensee is responsible for ensuring that the implementing procedures reflect the information in the Responsibility Matrix, appropriately summarized and suitably presented for effective use by the responding entities. The following paragraphs describe the contents of the Safeguards Contingency Response Plan. **10 CFR 73, Appendix C, Contents Of The Plan, second paragraph.**

GUIDANCE:

3.2.1 Background information is addressed in module III. The Generic Planning Base is addressed in module IV. The Licensee Planning Base is addressed in module V. The Responsibility Matrix is addressed in module VI.

Some of the commitments that must be made in a Safeguards Contingency Response Plan might already be included in an existing Physical Security Plan. These commitments may be incorporated by reference into a contingency plan. The contingency plan should clearly identify any information incorporated by reference. The licensee must assure that any information incorporated by reference fully meets the requirements of Appendix C or supplement the

referenced information as necessary. The contingency plan should include an affirmation that referenced material, as supplemented, meets all of the analogous requirements in Appendix C. The NRC license reviewer should confirm that all referenced material, as supplemented, fully meets the requirements of Appendix C.

3.2.2 Detailed implementing procedures are addressed in module VII.

3.3 MODULE III—BACKGROUND	
3.3 Background	Background. Under the following topics, this category of information shall identify and define the perceived dangers and incidents with which the plan will deal and the general way it will handle these: **10 CFR 73, Appendix C, Contents Of The Plan, Section 1.**
3.3.1 Perceived danger	Perceived Danger. A statement of the perceived danger to the security of special nuclear material, licensee personnel, and licensee property, including covert diversion of special nuclear material, radiological sabotage, and overt attacks. The statement of perceived danger should conform with that promulgated by the NRC. (The statement contained in 10 CFR 73.55 (a) or subsequent NRC statements will suffice.) **10 CFR 73, Appendix C, Contents Of The Plan, Section 1.a.** The following design basis threats ... shall be used to design safeguards systems to protect against acts of radiological sabotage and to prevent the theft of special nuclear material. ... (1) *Radiological sabotage.* (i) A determined violent external assault, attack by stealth, or deceptive actions, of several persons with the following attributes, assistance and equipment: (A) Well-trained (including military training and skills) and dedicated individuals, (B) inside assistance which may include a knowledgeable individual who attempts to participate in a passive role (e.g., provide information), an active role (e.g., facilitate entrance or exit, disable alarms and communications, participate in violent attack), or both, (C) suitable weapons, up to and including hand-held automatic weapons, equipped with silencers and having long range accuracy, (D) hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying ... facility ... or features of the safeguards system, and (E) a four-wheel drive land vehicle used for transporting personnel and their hand-carried

	equipment to the proximity of vital areas, and (ii) An internal threat of an insider, including an employee (in any position), and (iii) A four-wheel drive land vehicle bomb. (2) *Theft or diversion of formula quantities of strategic special nuclear material.* (i) A determined violent external assault, attack by stealth, or deceptive actions, by a small group with the following attributes, assistance and equipment: (A) Well-trained (including military training and skills) and dedicated individuals; (B) inside assistance which may include a knowledgeable individual who attempts to participate in a passive role (e.g., provide information), an active role (e.g., facilitate entrance or exit, disable alarms and communications, participate in violent attack), or both; (C) suitable weapons, up to and including hand-held automatic weapons, equipped with silencers and having long range accuracy; (D) hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying ... facility ... or features of the safeguards system; (E) land vehicles used for transporting personnel and their hand-carried equipment; and (F) the ability to operate as two or more teams. (ii) An individual, including an employee (in any position), and (iii) a conspiracy between individuals in any position who may have: (A) Access to and detailed knowledge of ... the facilities, or (B) items that could facilitate theft of special nuclear material (e.g., small tools, substitute material, false documents, etc.), or both. **10 CFR 73.1(a).**
3.3.2 Purpose of the plan	Purpose of plan. A discussion of the general aims and operational concepts underlying implementation of the plan. **10 CFR 73, Appendix C, Contents Of The Plan, Section 1.b.**
3.3.3 Scope of the plan	Scope of the Plan. A delineation of the types of incidents covered in the plan. **10 CFR 73, Appendix C, Contents Of The Plan, Section 1.c.**

3.3.4 Definitions	Definitions. A list of terms and their definitions used in describing the operational and technical aspects of the plan. **10 CFR 73, Appendix C, Contents Of The Plan, Section 1.d.**

GUIDANCE:

3.3.1 The reference in Appendix C to a threat statement in 10 CFR 73.55(a) is out of date. When the contingency planning rule was published, the only design basis threat definition in 10 CFR 73 was in Section 73.55(a) and it applied only to nuclear power reactors. The 1979 physical security upgrade rule replaced the reactor threat definition in Section 73.55(a) with design basis threats for radiological sabotage in 10 CFR 73.1(a)(1) and for theft or diversion of formula quantities of SSNM in 10 CFR 73.1(a)(2). Section 73.55(a) now references the design basis threat for radiological sabotage in Section 73.1(a)(2). The current NRC design basis threats are not facility-specific.

The substantive differences between the design basis threats for sabotage and theft are as follows. The threat for sabotage specifies an attack by several persons; the threat for theft specifies an attack by a small group with the ability to operate as two or more teams. The threat for sabotage specifies a four-wheel drive land vehicle used for transporting personnel; the threat for theft specifies land vehicles used for transporting personnel. The threat for sabotage specifies a single insider; the threat for theft specifies a conspiracy between individuals and characterizes their capabilities. The threat for sabotage specifies a land vehicle bomb; the threat for theft does not.

A Safeguards Contingency Response Plan must commit to a statement of perceived danger. It may reference one or both of the design basis threats in Section 73.1(a) as the perceived danger. If an alternative perceived threat is specified in a contingency plan, it must contain characteristics at least equivalent to the appropriate design basis threat(s) in 10 CFR 73.1(a).

The licensee must protect against theft of SSNM at a Category I fuel cycle facility. The NRC, upon the basis of its own analyses or its review of licensee analyses of the credibility of radiological sabotage at a specific facility, will determine whether or not the licensee must also protect against radiological sabotage. The design basis threat for theft or diversion would normally be appropriate and sufficient for a Category I uranium fuel facility. Protection against theft or diversion also provides some level of protection against radiological sabotage, particularly since the characteristics of the design basis threat for theft or diversion are more challenging (with respect to adversary capabilities) than those for sabotage. Because of the radiological and chemical characteristics of uranium and the uranium compounds employed at a uranium

fuel facility, the risk to public health and safety from radiological sabotage at such a facility would normally not be sufficient to warrant separate consideration of that threat.

(b)(7)(F)

Additional guidance about the circumstances under which protection against radiological sabotage would be required, and the types of Safeguards Contingency Response Plan changes associated with such a protection requirement, is provided in Appendix E of this SRP.

The Safeguards Contingency Response Plan must clearly state whether the licensee commits to protection against theft, or to protection against both theft

and radiological sabotage as separate protection objectives, and to which locations in the facility each protection objective applies, if that is the case.

(b)(7)(F)

3.3.2 The Safeguards Contingency Response Plan must contain a discussion of the general aims and operational concepts underlying implementation of the plan. The general aims and operational concepts must be consistent with the requirements of 10 CFR 73.20, 73.45 and 73.46 and the commitments made in the Physical Security Plan.

(b)(7)(F)

3.3.3 The Safeguards Contingency Response Plan must contain a delineation of the types of incidents covered in the plan. If addressed in this module, this discussion can be of a general nature, so long as the discussion of events in the Generic Planning Base is sufficiently specific to meet the requirements of 10 CFR 73 Appendix C, Contents of the Plan, Section 2. Alternatively, this section may cross-reference the discussion in the Generic Planning Base. The listing of incident types addressed in the plan must include all types that must be protected against in order to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to public health and safety. (See 10 CFR 73.20.)

The Safeguards Contingency Response Plan must contain a list of terms and their definitions used in describing the operational and technical aspects of the plan. A licensee may incorporate definitions contained in 10 CFR 73.2 by reference in his Safeguards Contingency Response Plan. The list of terms and definitions should include all terms that are used in the plan in a manner that differs from standard dictionary definitions or common usage.

3.4 MODULE IV—GENERIC PLANNING BASE	
3.4 Generic Planning Base	Generic Planning Base. Under the following topics, this category of information shall define the criteria for initiation and termination of responses to safeguards contingencies together with the specific decisions, actions, and supporting information needed to bring about such responses: **10 CFR 73, Appendix C, Contents Of The Plan, Section 2.**
3.4.1 Identification of events	Identification of those events that will be used for signaling the beginning or aggravation of a safeguards contingency according to how they are perceived initially by licensee's personnel. Such events may include alarms or other indications signaling penetration of a protected area, vital area, or material access area; material control or material accounting, indications of material missing or material unaccounted for; or threat indications – either verbal, such as telephone threats, or implied, such as escalating civil disturbances. **10 CFR 73, Appendix C, Contents Of The Plan, Section 2.a.**
3.4.2 Definition of objectives	Definition of the specific objective to be accomplished relative to each identified event. The objective may be to obtain a level of awareness about the nature and severity of the safeguards contingency in order to prepare for further responses; to establish the level of response preparedness; or to successfully nullify or reduce any adverse safeguards consequences arising from the contingency. **10 CFR 73, Appendix C, Contents Of The Plan, Section 2.b.**

GUIDANCE:

3.4 The identification of events and definition of objectives in the Licensee Planning Base must define the criteria for initiation and termination of responses to safeguards contingencies, together with the specific decisions, actions, and supporting information needed to bring about such responses employing the operational concepts committed to in sub-module 3.3. The criteria for initiation would normally be a part of the identification of the event. The criteria for termination of responses would normally be part of the definition of objectives for the response to the event. The remaining required information could be presented in either topic.

3.4.1 A useful technique for making a contingency plan effective is to keep the list of initiating events simple. Another important technique is to focus on the types of events and contingencies that would lead to *different* responses and security postures, so that both licensee and NRC personnel understand the progress of an event, the spectrum of different kinds of responses, and how the licensee security organization will respond to particular types of events. The event types discussed below are an *example* of a simple set that may also represent a complete set for many facilities. An individual licensee could identify other event types that might reflect site-specific factors.

The set of initiating events identified by the licensee must be consistent with the delineation of the types of incidents covered in the plan. In addition, the event set must cover, to NRC satisfaction, the event and response spectrum for that specific facility.

Sample list of events:

3.4.1.1 An *assessed unauthorized entry or attempted forced entry* into the protected area, material access area, or vault, or an unauthorized exit from a material access area. Each event of this type is normally preceded by some type of alarm, such as an alarm from a perimeter intrusion detection system, door alarm, or interior intrusion detection system.

(b)(7)(F)

Accordingly, the security staff at each facility could examine the frequency of each of the alarms to determine whether the initiating event for each type of alarm would be the alarm itself or a positive assessment of the alarm. For example, it is likely that the initiating factor for a perimeter alarm would be an assessment of an intrusion. However, for an alarm on an emergency exit door from a material access area, the alarm itself might be appropriate as the initiating factor. It may also be appropriate, depending on the circumstances, to deploy certain tactical resources prior to assessment and then take additional action upon positive alarm assessment.

Each event of this type requires an immediate response using a preplanned, rehearsed strategy. Based on discussions with current licensees, it is likely that the basic strategy of assuring that an adversary is not successful in leaving the site with a formula quantity of SSNM will be the same regardless of the type of alarm. Although the response tactics may differ depending on the location and type of the originating alarm, it appears that the difference in tactics is best addressed within the context of a single response procedure. Such detailed tactical issues would be addressed separately from the plan. Each event of this type could also evolve into a hostage situation.

3.4.1.2 *A fire or medical emergency.* Events of this type involve providing prompt access to and from the protected area and possibly material access areas. The contingency Responsibility Matrix and procedures must address measures to assure that the emergency is not a cover for an attempted diversion or theft. However, the matrix and procedures must ensure prompt access and/or egress necessary to resolve the emergency.

3.4.1.3 *A criticality event.*

(b)(7)(F)

3.4.1.4 *Natural phenomena or other events that threaten to degrade or actually degrade security.* This includes events such as hurricanes, tornadoes, severe thunderstorms, and snowstorms. Some of these events may occur with little warning. Others may occur with sufficient warning to allow licensees to call in off-duty personnel to cope with any degradation of security equipment. The response to events of this type should also address the personal safety of on-duty security personnel. The response should focus on major degradation of security systems, and should be maintained independently from procedures for compensatory measures for routine failure of one or a few elements of the security system.

3.4.1.5 *Events outside the protected area that could develop into a threat to the facility.* These include civil disturbances or demonstrations, picketing, or strikes. Such events would normally develop slowly and provide opportunity for management decisions to enhance onsite security.

3.4.1.6 *Communicated threats.* This could be either a threat advisory received from a government agency or a direct threat from a group or individual. It could include threats to attack the plant, bomb threats, or extortion threats.

3.4.1.7 *An indication of possible theft or diversion received from the material control and accounting system* (MC&A). The role of security would be primarily to check records such as door alarms to look for indications that could be correlated with MC&A data.

3.4.1.8 *Tampering with security or safety equipment.* Security officers would investigate for evidence of malevolent intent as a precursor to theft or sabotage.

3.4.2 The contingency plan must define the specific objective to be accomplished relative to each identified event. The defined objectives must be consistent with the general aims and operational concepts underlying implementation of the plan. The defined objectives must be such that their achievement will afford high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to public health and safety. (See 10 CFR 73.20.)

The following sample specific objectives correlate with the sample initiating events described under section 3.4.1 above.

3.4.2.1 The specific objective for *unauthorized entries or exits* would be to prevent theft of special nuclear material or prevent radiological sabotage.

3.4.2.2 The specific objective for a *fire or medical emergency* would be to ensure that security measures do not interfere with response to facility or personnel health emergencies and that such emergencies do not conceal an attempted theft.

3.4.2.3 (b)(7)(F)

3.4.2.4 The specific objective for *natural phenomena* would be to anticipate possible major degradations of security systems and take actions to prevent, or promptly compensate for, security system degradation.

3.4.2.5 The specific objective for *external events* would be to monitor the events and to enhance security, as appropriate, if the situations escalate and threaten the facility.

3.4.2.6 The specific objective for a *communicated threat* would be to evaluate the credibility and immediacy of the threat and to enhance security as appropriate.

3.4.2.7 The specific objective for *MC&A indications* would be to find evidence that would confirm that special nuclear material may have been stolen or diverted and that would aid in determining when it may have occurred, and who may have been involved.

3.4.2.8 The specific objective for *tampering* would be to determine whether tampering occurred; to find evidence that would aid in determining when it may have occurred, and who may have been involved; and to identify and take actions to prevent additional tampering or degradation of the security system.

3.5 MODULE V—LICENSEE PLANNING BASE	
3.5 Licensee Planning Base	Licensee Planning Base. This category of information shall include the factors affecting contingency planning that are specific for each facility ... To the extent that the topics are treated in adequate detail in the licensee's approved Physical Security Plan, they may be incorporated by cross-reference to that plan. The following topics should be addressed: **10 CFR 73, Appendix C, Contents Of The Plan, Section 3.**
3.5.1 Organizational structure	Licensee's Organizational Structure for Contingency Responses. A delineation of the organization's chain of command and delegation of authority as they apply to safeguards contingencies. **10 CFR 73, Appendix C, Contents Of The Plan, Section 3.a.**
3.5.2 Physical layout	Physical Layout. (i) Fixed Sites -- A description of the physical structures and their location on the site, and a description of the site in relation to nearby town, roads, and other environment features important to the effective coordination of response operations. Particular emphasis should be placed on main and alternate entry routes for law enforcement assistance forces and the location of control points for marshaling and coordinating response activities. **10 CFR 73, Appendix C, Contents Of The Plan, Section 3.b.**
3.5.3 Systems hardware	Safeguards Systems Hardware. A description of the physical security and accounting system hardware that influence how the licensee will respond to an event. Examples of systems to be discussed are communications, alarms, locks, seals, area access, armaments, and surveillance. **10 CFR 73, Appendix C, Contents Of The Plan, Section 3.c.**
3.5.4 Law enforcement assistance	Law Enforcement Assistance. A listing of available local law enforcement agencies and a description of their response capabilities and their criteria for response; and a discussion of working agreements or arrangements for communicating with these agencies. **10 CFR 73, Appendix C, Contents Of The Plan, Section 3.d.**

	The licensee shall establish and document response arrangements that have been made with LLEA. **10 CFR 73.46(h)(2).**
3.5.5 Policy considerations	Policy Constraints and Assumptions. A discussion of State laws, local ordinances, and company policies and practices that govern licensee response to incidents. Examples that may be discussed include: Use of deadly force; use of employee property; use of off-duty employees; site security jurisdiction boundaries. **10 CFR 73, Appendix C, Contents Of The Plan, Section 3.e.** The licensee shall instruct every guard and all armed response personnel to prevent or impede acts of radiological sabotage or theft of SSNM by using force sufficient to counter the force directed at him, including the use of deadly force when the guard or other armed response person has a reasonable belief that it is necessary in self-defense or in the defense of others. **10 CFR 73.46(h)(5).**
3.5.6 Logistics	Administrative and Logistical Considerations. Descriptions of licensee practices that may have an influence on the response to safeguards contingency events. The considerations shall include a description of the procedures that will be used for ensuring that all equipment needed to effect a successful response to a safeguards contingency will be easily accessible, in good working order, and in sufficient supply to provide redundancy in case of equipment failure. **10 CFR 73, Appendix C, Contents Of The Plan, Section 3.f.**
3.5.7 Tactical Response Team	A TRT consisting of a minimum of five (5) members must be available at the facility to fulfill assessment and response requirements. In addition, a force of guards or armed response personnel must be available to provide assistance as necessary. The size and availability of the additional force must be determined on the basis of site-specific considerations that could affect the ability of the total onsite response force to engage and impede the adversary force until offsite assistance arrives.

	The rationale for the total number and availability of onsite armed response personnel must be submitted in the physical protection plans submitted to the NRC for approval. **10 CFR 73.46(h)(3).**
3.5.8 Response to abnormal presence or activity	Upon detection of abnormal presence or activity of persons or vehicles within an isolation zone, a protected area, a material access area, or a vital area, or upon evidence or indication or intrusion into a protected area, a material access area, or a vital area, the licensee security organization shall: (i) Determine whether or not a threat exists, (ii) assess the extent of the threat, if any, (iii) take immediate concurrent measures to neutralize the threat by: (A) Requiring responding guards or other armed response personnel to interpose themselves between vital areas and material access areas and any adversary attempting entry for purposes of radiological sabotage or theft of SSNM and to intercept any person exiting with special nuclear material, and (B) informing local law enforcement agencies of the threat and requesting assistance. **10 CFR 73.46(h)(4).**

GUIDANCE:

3.5 The topics in this module must address the data, criteria, procedures, and mechanisms necessary to efficiently implement the predetermined set of decisions identified in the Generic Planning Base. The commitments in this module of the contingency plan should be supported by a narrative demonstrating that they are sufficient to provide the initiation and termination of response to safeguards contingencies identified in the Generic Planning Base, in a manner that achieves the objective for each event.

3.5.1 Section 3.a of Appendix C, organizational structure, is potentially redundant with 10 CFR 73.46(b)(1) and 73.46(b)(3), which must be addressed in a licensee's Physical Security Plan. Section 73.46(b)(1) requires the licensee to establish a security organization. Section 73.46(b)(3) requires the licensee to have a management system to provide for the development, revision, implementation, and enforcement of security procedures, including written security procedures that document the structure of the security organization and that detail the duties of a TRT, guards, watchmen, and other individuals responsible for security.

This management system information may be incorporated into the contingency plan by reference. However, if it is, or if the contingency plan is combined with the Physical Security Plan, the Physical Security Plan should specify the organization's chain of command and delegation of authority in sufficient detail to meet the intent of Appendix C. The licensee must specify in a NRC-approved plan the organization's chain of command and delegation of authority as they apply to safeguards contingencies. The chain of command and delegation of authority must be consistent with the Responsibility Matrix discussed in module VI and the procedures discussed in module VII.

3.5.2 Section 3.b of Appendix C, physical layout, is at least partially redundant with the Physical Security Plan. Section C.1 of Regulatory Guide 5.52, *Standard Format and Content of a Licensee Physical Protection Plan for Strategic Special Nuclear Material*, and Section 3.1 of NUREG-1456, *An Alternate Format for Category I Fuel Cycle Facility Physical Protection Plans*, both state that the Physical Security Plan should describe the general layout of the facility and the surrounding area.

However, the Physical Security Plan might not place emphasis on entry routes for law enforcement, or emphasize other site layout features that affect coordination of response operations.

(b)(7)(F)

The description of the physical layout to be included in the Safeguards Contingency Response Plan must make clear those aspects of the layout that affect contingency response, and thus might differ in detail from the section of the Physical Security Plan describing the general layout.

(b)(7)(F)

3.5.3 Portions of Section 3.c of Appendix C, systems hardware, are redundant with several sections of the Physical Security Plan. Examples of systems to be discussed in the contingency plan are communications, alarms, locks, seals, area access, armaments, and surveillance. The Physical Security Plan must address the following requirements. Section 73.46(b)(6) and 10 CFR 73, Appendix B, V.A.(1)-(4) have requirements for armaments. Section 73.46(c) has

requirements for physical barriers. Section 73.46(d) has requirements for access controls, including locks. Section 73.46(e) has requirements for detection, surveillance and alarms. Section 73.46(f) has requirements for communications. Section 73.46(h)(6) has requirements for closed circuit television (CCTV) or other suitable means of observing the isolation zones and the physical barrier at the perimeter of the protected area. Section 74.55 includes provisions related to tamper-safe items (seals).

Normally, the Physical Security Plan would be the operative document for commitments on systems hardware. The applicant or licensee must provide sufficient commitments in one or more of its plans to ensure that the systems hardware is sufficient to support the Generic Planning Base. Consequently, should the contingency plan cross-reference the discussion of system hardware in the Physical Security Plan, the discussion of system hardware in that plan must satisfy the information requirements of Appendix C as well as those of Section 73.46. If that is not the case, then a separate discussion in the Safeguards Contingency Response Plan must be provided.

As a minimum, the plan must commit to the system hardware requirements specified in 10 CFR 73.46. More detailed commitments should be made regarding protected area perimeter intrusion detection and alarm assessment. Regulatory Guide 5.44, "Perimeter Intrusion Alarm Systems," provides detailed guidance intrusion detection systems. In section 1.7 it also provides guidance on CCTV assessment. In addition, a discussion of the interrelationship between detection, assessment, and response is presented in guidance item 3.5.8 below.

The detection, assessment, access control, and communications elements of this safeguards system hardware must be sufficient to provide all of the indications of the initiation of events credited in the Generic Planning Base. The armament, physical barriers, access controls, surveillance, and communications elements of this safeguards system hardware, in combination with the licensee security organization committed to or referenced in the contingency plan, must be sufficient to achieve the objectives established for each event. The contingency plan must also include or reference a discussion of the performance and operational testing conducted on the safeguards system hardware. The testing committed to should provide high assurance that the safeguards system hardware will perform as required to support the Generic Planning Base.

3.5.4 Section 3.d of 10 CFR 73 Appendix C, law enforcement assistance, includes a requirement for the contingency plan to describe local law enforcement capabilities. 10 CFR 73.46(h)(1) requires a licensee's contingency plan to also include the local law enforcement requirement specified in 10 CFR 73.46(h)(2). (See module 3.1.2, and guidance 3.1.2.) 10 CFR 73.46(h)(2) requires the licensee to establish and document response arrangements with LLEA.

Section 3.d of Appendix C to Part 73 also includes a requirement for the contingency plan to discuss working agreements for communicating with LLEA. This is potentially redundant with Section 73.46(f)(2), which also has requirements for communications with the LLEA. Should the Safeguards Contingency Response Plan cross-reference the discussion of these working agreements in the Physical Security Plan, that discussion must satisfy the information requirements of 10 CFR 73 Appendix C. If that is not the case, then a separate discussion in the Safeguards Contingency Response Plan must be provided.

Plan commitments should include the number of law enforcement officers who will respond, the amount of time it will take them to respond, and their armament. The licensee's onsite response force must be capable of neutralizing an adversary until sufficient offsite assistance arrives. The description, in combination with other information contained or referenced in the contingency plan, should provide sufficient information to demonstrate that LLEA can provide the level of response necessary for the licensee to meet the applicable objectives established in the Design Basis Threat Planning Base.

3.5.5 Section 3.e of 10 CFR 73 Appendix C, policy constraints and assumptions, includes a general requirement for the contingency plan to discuss, among other things, use of deadly force. 10 CFR 73.46(h)(1) requires a licensee's contingency plan to also include the response requirement specified in 10 CFR 73.46(h)(5). (See module 3.1.2 and guidance 3.1.2.) 10 CFR 75.46(h)(5) is a more detailed requirement regarding use of deadly force.

Section 3.e of Appendix C is redundant with some other requirements that must be addressed in the Physical Security Plan. Section 3.e includes use of deadly force and site security jurisdictional boundaries. The Physical Security Plan must address the following requirements. Sections 73.46(h)(4) and (5) have requirements related to use of deadly force. Section 73.46(h)(2) requires the licensee to establish and document response arrangements made with LLEA. Should the Safeguards Contingency Response Plan cross-reference the discussion of these items in the Physical Security Plan, that discussion must be also satisfy the requirements of Appendix C. If that is not the case, then a separate discussion in the Safeguards Contingency Response Plan must be provided.

3.5.6 Section 3.f of 10 CFR 73 Appendix C, administrative and logistical considerations, includes a requirement that response equipment be easily accessible, in good working order, and in sufficient supply to provide redundancy in case of equipment failure. This is potentially redundant with the Physical Security Plan, which must address the requirements in Section 73.46(g) for

testing and maintenance programs. It is also potentially redundant with the Training and Qualifications Plan, which must address the requirements in 10 CFR 73, Appendix B, Section V regarding armed response equipment.

A commitment must be made describing the availability of equipment. In particular, response weapons must be readily available to support timely response. A commitment must also be made describing the applicant's or licensee's program for maintaining equipment in good working order. A commitment must be made to ensure that response equipment is in sufficient supply to provide redundancy in case of equipment failure.

These commitments must be consistent with the operational concepts committed to in sub-module 3.3. These commitments are acceptable if they demonstrate high assurance that the response weapons and other response equipment relied upon to achieve the event objectives in the Generic Planning Base will be available in a sufficiently short time and in sufficient numbers to achieve the corresponding event objectives.

3.5.7 10 CFR 73.46(h)(1) requires a licensee's contingency plan to include the requirement for a TRT specified in 10 CFR 73.46(h)(3). (See module 3.1.2 and guidance 3.1.2.) 10 CFR 73.46(h)(3) requires the TRT to include at least five members onsite at any time and to be assisted by other armed responders as necessary. The size and availability of the additional force must be determined on the basis of site-specific considerations.

The contingency plan or the Physical Security Plan must include commitments regarding the minimum number of TRT members and the minimum number of other armed responders who will be available onsite at any time, their normal duty stations, and the location of their response weapons. These commitments should be supported by a written rationale demonstrating that the number of armed responders, their duty stations, and their access to response weapons are adequate to provide high assurance that the response force can engage and impede the adversary force until adequate offsite assistance arrives.

10 CFR 73.46(b)(9) requires a licensee to conduct TRT and guard exercises to demonstrate the overall security system effectiveness and the ability of the security force to perform response and contingency plan responsibilities, and to demonstrate individual skills in assigned duties. It is essential that these drills be used to continually confirm that the general protection strategy, the size and deployment of the armed responders, and the availability of their weapons are sufficient to maintain overall system effectiveness. The contingency plan must include, or reference in the Physical Security Plan, a commitment to conduct TRT and guard exercises.

Response force size alone is not sufficient to provide effective response. Responders deployed outside the protected area or in poorly selected locations within the protected area may be ineffective. Likewise, weapons must be readily available. (b)(7)(F)

Exercises should be used to audit the full range of contingency events. However, because of the complexity of armed contingencies and the need for immediate response to protect against an armed attack, the majority of exercises must involve the full capabilities of the NRC's design basis threat(s) applicable to the facility. The analysis or rationale, demonstrating that the minimum number of TRT members and other armed responders committed to is sufficient, should be supported by exercise results and should include a discussion of the dependence of the effectiveness of armed response on the licensee's intrusion detection, assessment, and monitoring systems.

Either the Safeguards Contingency Response Plan or the Physical Security Plan must commit that the licensee will modify the contingency plan or procedures, or the response force size, deployment, or armament as necessary to correct deficiencies noted in drills. Either the Safeguards Contingency Response Plan or the Training and Qualifications Plan should commit that the training program will be modified or individual remedial training be provided to correct deficiencies noted in drills.

3.5.8 10 CFR 73.46(h)(1) requires a licensee's contingency plan to include requirements for response to abnormal presence or activity of persons or vehicles specified in 10 CFR 73.46(h)(4). (See module 3.1.2 and guidance 3.1.2.)

10 CFR 73.46(h)(4) requires a licensee, upon detection of abnormal presence or activity of persons or vehicles within an isolation zone, a protected area, a material access area, or a vital area, to assess whether a threat exists and to neutralize the threat. Equipment used for detection and assessment is required to be described in module 3.5.3 of the contingency plan or incorporated by reference to the Physical Security Plan.

The ability to effectively respond to an armed attack on the facility is dependent upon three essential functions--detection, assessment, and armed response. A licensee cannot respond to an armed attack until it has detected an unauthorized entry and correctly assessed it. To achieve a high probability of overall success, each of these three functions must have a high probability of success. In a typical deployment and armament of security officers, effective response depends upon detection at the protected area perimeter and immediate assessment. In such cases, the overall probability of success is roughly a multiple of the individual probabilities of success. For example, if detection,

assessment, and response each have a probability of success of .9, the overall effectiveness is roughly .73. The overall probability of success will also generally be less than the probability of success of the weakest element (e.g., the so-called "weak link in the chain"). If the probability of success of the detection and response is each .9, but the probability of assessment is only .5, the overall probability of success will generally be less than .5.

The preceding discussion of probability of success is offered to show the need for the written rationale discussed in the second paragraph of guidance section 3.5.7 to include a discussion of the dependence of armed response on the licensee's detection and assessment systems. If the detection and assessment systems must have high probabilities of effectiveness for the response capability to be effective, module 3.5.3 should include a description of the performance testing that will be performed periodically to confirm that these systems are performing adequately.

3.6 MODULE VI—RESPONSIBILITY MATRIX	
3.6 Responsibility Matrix	Responsibility Matrix. This category of information consists of detailed identification of the organizational entities responsible for each decision and action associated with specific responses to safeguards contingencies. For each initiating event, a tabulation shall be made for each response entity depicting the assignment of responsibilities for all decisions and actions to be taken in response to the initiating event. (Not all entities will have assigned responsibilities for any given initiating event.) The tabulations in the Responsibility Matrix shall provide an overall picture of the response actions and their interrelationships. Safeguards responsibilities shall be assigned in a manner that precludes conflict in duties or responsibilities that would prevent the execution of the plan in any safeguards contingency. **10 CFR 73, Appendix C, Contents Of The Plan, Section 4.**

GUIDANCE:

3.6 An acceptable Responsibility Matrix must address all events in the Generic Planning Base and include all important actions and decisions that must be made to achieve the objectives established for these events in the Generic Planning Base. The Responsibility Matrix should clearly identify which individual or organization is responsible for accomplishing an action or making a decision.

The Responsibility Matrix should also be sufficiently simple to be easily understood and remembered. An acceptable matrix should also avoid assigning many decisions and actions to all or many of the organizational entities. This would be unrealistic. The Responsibility Matrix also must be consistent with the organization structure committed to in response to Section 3.a of 10 CFR 73 Appendix C and 10 CFR 73.45(b)(1) and (3). (See module 3.5.1.) In particular, the individuals assigned responsibility for decisions or actions in the Responsibility Matrix must have the organizational authority to make those decisions or take those actions.

A *sample* Responsibility Matrix is shown in Appendix D to this SRP. The intent in developing the sample Responsibility Matrix in Appendix D was to depict on a single page all of the essential actions and decisions necessary, starting with the initiating event and leading to successful resolution. The matrix should allow

each key participant to understand who is responsible for what and in what sequence.

The licensee may utilize his or her own format for the Responsibility Matrix, provided that it provides, to NRC satisfaction, the required information in a way that is readily understandable by each key participant in the response to a contingency.

The types of events addressed in this matrix can happen very quickly and require immediate and effective response. Exercises, such as those required by 10 CFR 73.46(b)(9), should routinely be conducted to evaluate the effectiveness of the procedures under a variety of conditions, and as a training tool for persons with key responsibilities.

3.7 MODULE VII—PROCEDURES	
3.7 Procedures	Procedures. In order to aid execution of the detailed plan as developed in the Responsibility Matrix, this category of information shall detail the actions to be taken and decisions to be made by each member or unit of the organization as planned in the Responsibility Matrix. **10 CFR 73, Appendix C, Contents Of The Plan, Section 5.**

GUIDANCE:

3.7 It is strongly recommended that contingency procedures be maintained as a separate set of procedures, independent of routine operational procedures. This separation should make clear the distinction between those procedures intended for normal operations and those intended for what clearly would be off-normal security situations. Because contingencies should be rare events, any important contingency implementing documents should not be intermingled with routine implementing documents. The NRC also expects the licensee to provide every member of the security organization who has contingency responsibilities with a copy of the contingency responsibility matrices and the specific procedures which that person may have to implement.

The procedures must address all actions and decisions identified in the Responsibility Matrix. The assignments of responsibilities for actions and decisions in the procedures must be consistent with those in the Responsibility Matrix.

Implementing procedures should be developed for each key participant in the response. They should be kept simple and should assure that the needs of other participants are addressed. For example, the tactical response to an alarm on an emergency exit from a material access area would likely be different than the tactical response to a perimeter alarm. The procedures for the alarm station operators should assure that the responders immediately know what response tactics are necessary, perhaps using some simple coding system and other essential details such as the location of the emergency exit that generated an alarm. The procedures for the responders should clearly and simply specify what actions are necessary for each type of assessed intrusion or emergency exit situation. Should the Responsibility Matrix be modified in a way that affects assignments and responsibilities for any participant identified in the matrix, the implementing procedures for the affected response entity must also be reviewed for conforming changes.

These types of events can also become protracted, particularly if the adversaries take hostages or are contained but not quickly neutralized or apprehended. The procedures for the senior onsite security supervisor should address call-in procedures and transfer of responsibility. Operational responsibility should be assigned to the manager with the most appropriate training and experience. The procedures should also address the responsibilities of LLEA and conditions under which the LLEA would assume onsite responsibilities, such as handling hostage situations and apprehending the adversaries.

3.8 MODULE VIII— AUDIT AND REVIEW	
3.8.1 Audit and review	Audit and Review. At intervals not to exceed 12 months, the licensee shall provide for a review of the Safeguards Contingency Response Plan by individuals independent of both security program management and personnel who have direct responsibility for implementation of the security program. The review must include an audit of safeguards contingency procedures and practices, and an audit of commitments established for response by LLEA. **10 CFR 73, Appendix C, Audit And Review, first paragraph.**
3.8.2 Documentation	The licensee shall document the results and the recommendations of the Safeguards Contingency Response Plan review, management findings on whether the Safeguards Contingency Response Plan is currently effective, and any actions taken as a result of recommendations from prior reviews in a report to the licensee's plant manager and to corporate management at least one level higher than that having responsibility for the day-to-day plant operation. The report must be maintained in an auditable form, available for inspection for a period of 3 years. **10 CFR 73, Appendix C, Audit And Review, second paragraph.**

GUIDANCE:

3.8.1 The audit should include a review of the documentation of drill and exercise debriefings and a review of corrective actions taken to rectify any weaknesses identified in the drills or exercises. While changes to the detailed implementing procedures might suffice to rectify a weakness, the licensee should utilize drills and exercises to review the overall Safeguards Contingency Response Plan. The results of drills and exercises should also be utilized to assure that the training and qualifications plan effectively trains and qualifies response personnel to carry out their duties and responsibilities in the contingency response committed to in the Safeguards Contingency Response Plan.

The audit of the Safeguards Contingency Response Plan may be combined with the annual security plan review required by 10 CFR 73.46(g)(6) as long as all elements of the contingency plan required to be reviewed under 10 CFR 73 Appendix C are addressed.

APPENDIX A—RECOMMENDED FORMAT FOR SAFEGUARDS CONTINGENCY RESPONSE PLAN SUBMITTALS

If the recommended format is used, the applicant should adhere to the numbering system of this SRP. Under certain circumstances, subsections may not be appropriate for a specific application. Clearly state if this is so and give enough information to support this conclusion.

The applicant may wish to submit information in support of an application that is not required by regulations and is not essential to the description of the Safeguards Contingency Response Plan. Such information should include, for example, historical data submitted in demonstration of certain criteria, discussion of alternatives considered by the applicant, or supplementary data regarding assumed models, data, or calculation. This information should be provided in an appendix to the plan.

Upon completion of the plan, the applicant should use the table of contents of this document as a checklist to ensure that each subject has been addressed.

A.1 Style and Composition

A table of contents should be included in each submittal.

The applicant should strive for clear, concise presentation of information. Confusing or ambiguous statements and general statements of intent should be avoided. Definitions and abbreviations should be consistent throughout the submittal, and consistent with generally accepted usage.

Whenever possible, duplication of information should be avoided. The information included in other sections of the application may be covered by specific reference to those sections.

Where numerical values are stated, the number of significant figures should reflect the accuracy or precision to which the number is known. The use of relative values should be clearly indicated. Drawings, diagrams, and tables should be used when information may be presented more adequately or conveniently by such means. These illustrations should be located in the section in which they are first referenced. Care should be taken to ensure that the information presented in drawings is legible, that symbols are defined, and that drawings are not reduced to the extent that they cannot be read by people with good vision.

A.2 Physical Specifications of Submittal

All material submitted in an application should conform to the following physical dimensions of page size, quality of papers and inks, numbering of pages, etc.

A.2.1 Paper Size

Text: Paper should measure 21.5 x 28 centimeters [8.5 x 11 inches]
Drawings and graphics: 16 x 23 centimeters [6.5 x 9 inches] (to allow for margin) is preferred; however, a larger size is acceptable as long as the finished copy, when folded, does not exceed 21.5 x 28 centimeters [8.5 x 11 inches].

A.2.2 Paper Stock and Ink

Good quality white laser or photocopy paper and consistent ink density should be used for clear reproduction by microfilming, photocopying, and printing.

A.2.3 Paper Margins

A margin of no less than 2.5 centimeters [1 inch] is to be maintained on the top, bottom, right side, and left side of all pages submitted.

A.2.4 Printing

Composition: Text pages should be single spaced. Standard NRC type face and style should be used.

Reproduction: The plan may be printed or photocopied. Except for an oversize figure, all pages of text will be printed on both sides.

A.2.5 Binding

Pages should be punched for a 3-ring loose leaf notebook.

A.2.6 Page Numbering

Pages should be numbered consecutively throughout the main part of the document. Any appendices may be numbered separately, if desired. Each page of the Safeguards Contingency Response Plan should contain a page number; a revision number, as applicable; and a date.

A.3 Procedures for Revising Pages

The updating or revising of data should be on a replacement page basis. The changes (revised portion of each page) should be highlighted by a vertical line on the margin opposite the binding margin (outside margin) for each line changed, revised, deleted or added. All pages submitted to update, revise, add, or delete pages to the plan shall show the date of the change. The transmittal letter should include the index page listing the pages to be inserted and the pages to be removed. When major changes,

deletions, or additions are made, pages for a revised table of contents should be provided.

A.4 Number of Copies

The applicant should submit the appropriate number of copies of each requested submittal in accordance with 10 CFR 72.16.

A.5 Public Disclosure

NRC has determined that it is not in the public interest to disclose the details of physical protection programs, and that such details should be protected as Safeguards Information pursuant to 10 CFR 73.21. The requirements of 10 CFR 95 must be met if this plan contains National Security Information or Restricted Data.

A.6 Compatibility

The applicant should ensure that information in the Safeguards Contingency Response Plan does not conflict with other sections of the application.

A.7 Schedule for Submittal

The applicant should contact NRC to determine a schedule for submitting the Safeguards Contingency Response Plan.

APPENDIX B—GLOSSARY OF TERMS

These terms are excerpted from Title 10 of the *Code of Federal Regulations* (10 CFR Parts 72 and 73).

Armed response personnel means persons, not necessarily uniformed, whose primary duty in the event of attempted theft of special nuclear material or radiological sabotage shall be to respond, armed and equipped, to prevent or delay such actions.

Category I is equivalent to a **Formula Quantity**, which means SSNM in any combination in a quantity of 5,000 grams or more computed by the formula, grams = (grams contained U-235) + 2.5 (grams U-233 + grams plutonium).

Contiguous sites means licensee controlled locations, deemed by the NRC to be in close proximity to each other, that the special nuclear material must be considered in the aggregate for the purpose of physical protection.

Deceit means methods used to attempt to gain unauthorized access, introduce unauthorized materials, or remove strategic special nuclear materials, where the attempt involves falsification to present the appearance of authorized access.

Force means violent methods used by an adversary to attempt to steal strategic special nuclear material or to sabotage a nuclear facility or violent methods used by response personnel to protect against such adversary actions.

Guard means a uniformed individual armed with a firearm whose primary duty is the protection of special nuclear material against theft, the protection of a plant against radiological sabotage, or both.

Intrusion alarm means a tamper indicating electrical, electromechanical, electrooptical, electronic or similar device which will detect intrusion by an individual into a building, protected area, vital area, or material access area, and alert guards by means of actuated visible and audible signals.

Isolation zone means any area adjacent to a physical barrier, clear of all objects which could conceal or shield an individual.

Material access area means any location which contains special nuclear material, within a vault or a building, the roofs, walls, and floor of which each constitute a physical barrier.

Protected area means an area encompassed by physical barriers and to which access is controlled.

Radiological sabotage means any deliberate act directed against a plant or transport which could directly or indirectly endanger the public health and safety by exposure to radiation.

Safeguards information means information not otherwise classified as National Security Information or Restricted Data which specifically identifies a licensee's or applicant's detailed, (1) security measures for the physical protection of special nuclear material, or (2) security measures for the physical protection and location of certain plant equipment vital to the safety of production or utilization facilities.

Security management means persons responsible for security at the policy and general management level.

Security supervision means persons, not necessarily uniformed or armed, whose primary duties are supervision and direction of security at the day-to-day operating level.

Stealth means methods used to attempt to gain unauthorized access, introduce unauthorized materials, or remove strategic special nuclear material, where the fact of such attempt is concealed or an attempt is made to conceal it.

Strategic special nuclear material means uranium 235 (contained in uranium enriched to 20 percent or more in the uranium-235 isotope), uranium-233, or plutonium.

Tactical Response Team means the primary response force for each shift which can be identified by a distinctive item of uniform, armed with specified weapons, and whose other duties permit immediate response.

Vital area means any area which contains vital equipment.

Vital equipment means any equipment, system, device, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation. Equipment or systems which would be required to function to protect public health and safety following such failure, destruction, or release are also considered to be vital.

Watchman means an individual, not necessarily uniformed or armed with a firearm, who provides protection for a plant and the special nuclear material therein in the course of performing other duties.

APPENDIX C—SAMPLE LICENSE CONDITION

The licensee shall follow the Safeguards Contingency Response Plan entitled: (Insert *facility name*) *Category I Fuel Facility Safeguards Contingency Response Plan*, dated (insert date), and as it may be further amended under the provisions of 10 CFR 70.34 and 70.32(d).

(The requirements of 10 CFR Part 73, Appendix B, for guard training and qualifications, are incorporated in Appendix C of the approved physical protection plan. The requirements of 10 CFR Part 73, Appendix C, for contingency planning, are incorporated into Chapter 1.9 of the physical protection plan.)

APPENDIX D—EXAMPLE RESPONSIBILITY MATRIX

Responsibility Matrix Unauthorized entry or exit into/from the protected area, material access area, or vault					
	Alarm Station Operators	Armed Responders (including TRT)	Tactical Response Team Leader	Senior Onsite Security Supervisor	Non-Responders
Determine that an intrusion or possible theft is underway. (One operator assesses, the other assures that assessment was made.)	X				
Initiate immediate response.	X				
Inform responders of location of alarm and location and nature of adversaries.	X				
Immediately respond according to pre-planned strategy and interdict adversaries.		X	X		
Provide command and control.			X		
Request LLEA assistance.	X				
Make general plant alert.	X				
Inform plant and operations management.				X	
Coordinate communications.	X				
Provide management oversight from alarm station. (b)(7)(F)				X	
Lock down access portals.					X
Transfer onsite responsibility to LLEA for dealing with hostage situations and for apprehension.				X	
Declare event terminated.				X	

APPENDIX E—ADDITIONAL CONSIDERATIONS FOR NEW FACILITIES/ACTIVITIES

SCOPE

This appendix addresses the contingency planning considerations that are not applicable to the facilities licensed to possess SSNM in 1999, but may be applicable to SSNM facilities or activities licensed after that date. These include considerations related to the threat of radiological sabotage and considerations associated with the licensing of facilities sited on Department of Energy (DOE) reservations that rely upon DOE assets for physical protection. The additional acceptance criteria presented in this appendix supplement the acceptance criteria presented in the SRP for such facilities or activities.

I. RADIOLOGICAL SABOTAGE

The appropriate threat for the current (1999) licensed strategic SSNM facilities is the NRC design basis threat for SSNM theft and diversion. (See 10 CFR 73.1(a)(2)). However facilities or activities licensed after 1999 may be authorized to possess SSNM in a form and such that protection against radiological sabotage is warranted.

(b)(7)(F)

(b)(7)(F)

A. Perceived Danger/Threat

(b)(7)(F)

(b)(7)(F)

[1]U.S. Environmental Protection Agency, Revised 1991.
[2]The effective dose equivalent is the sum of the products of the dose equivalent to the body organ or tissue and the weighting factors applicable to each of the body organs or tissues that are irradiated. (See 10 CFR 70.4.) For intakes of radioactive material this includes the committed dose that will be received during the 50 year period following the intake. (See 10 CFR 20.1003.)
[3]See 10 CFR 70.22(i)(1).
[4]For example, the analysis should not credit the types of operating restrictions and procedures that can be credited pursuant to 10 CFR 70.21(i)(2)(vi) unless there are specific measures that would be effective in preventing the radiological sabotage design basis threat from violating such operating restrictions and procedures.

(b)(7)(F)

Security force actions relied upon to reduce the risk of radiological sabotage to the point where the threat need not be considered must be committed to in the Safeguards Contingency Response Plan and included in the demonstrations of overall security system effectiveness conducted pursuant to 10 CFR 73.46(b)(9).

(b)(7)(F)

A.1 Additional Guidance

For facilities licensed to possess enriched uranium or plutonium for which a criticality alarm system is required, uranium hexafluoride in excess of 50 kilograms in a single container or 1000 kilograms total, or in excess of 2 curies of plutonium in unsealed form, a radiological sabotage consequence analysis to determine whether the threat of radiological sabotage requires consideration is to be included as an appendix to the Safeguards Contingency Response Plan. The radiological sabotage consequence analysis provides a conservative assessment of the possible offsite consequences of postulated radiological sabotage actions by an adversary force possessing the capabilities specified in the design basis threat for radiological sabotage (10 CFR 73.1(a)(1)). Alternatively, the Safeguards Contingency Response Plan may include a commitment to provide protection against radiological sabotage by the 10 CFR 73.1(a)(1) design basis threat.

(b)(7)(F)

the Safeguards Contingency Response Plan accordingly would include a commitment to provide protection against radiological sabotage by the 10 CFR 73.1(a)(1) design basis threat.

(b)(7)(F)

B. Generic Planning Base

The Generic Planning Base event objectives need to account for the differences in perceived danger /threat for those facilities or facility segments where the threat of radiological sabotage is applicable.

(b)(7)(F)

B.1 Additional Guidance

The Generic Planning Base event objectives are to be consistent with the protection strategy committed to in the Safeguards Contingency Response Plan.

C. Licensee Planning Base

The Licensee Planning Base needs to account for the differences in the tactics appropriate for those facilities or facility segments where the threat of radiological sabotage is applicable.

(b)(7)(F)

The specific additional security measures required will depend upon the design of the facility and the site configuration. General guidance for designing hardened security barriers is found in SAND 87-1926, *Access Delay Technology Transfer Manual*,[5] and in NUREG-0669, *Fixed Site Physical Protection Upgrade Rule Guidance Compendium.*[6] General guidance for tactics is found in NUREG/CR-5172, *Tactical Training Reference Manual*. It is extremely beneficial to incorporate tactical considerations into the design of the new facilities to maximize the tactical efficiency of the response force and minimize physical protection cost.

[5]Sandia National Laboratories, Albuquerque, NM, printed 1989.
[6]U.S. Nuclear Regulatory Commission, 1979

The Safeguards Contingency Response Plan should discuss the analysis performed or the exercises conducted to demonstrate that the combination of security force deployment, defensive positions, and physical barriers will be successful (b)(7)(F) (b)(7)(F) Although computer modeling can be valuable in designing the safeguards system, safeguards system effectiveness must be validated by exercises that demonstrate the overall security system performance, as required by 10 CFR 73.46(b)(9). For new facilities, the Safeguards Contingency Response Plan should include commitments to perform such exercises prior to facility startup. General guidance for the design and conduct of such exercises is found in NUREG/CR-5081, *Tactical Exercise Planning Handbook*.

C.1 Additional Guidance

The Licensee Planning Base must identify resources that are adequate to achieve the Generic Planning Base event objectives. The adequacy of these resources has been demonstrated by analysis and validated by exercises that demonstrate the overall security system performance, as required by 10 CFR 73.46(b)(9). The validation has been accomplished or will be accomplished prior to facility startup.

D. Responsibility Matrix

(b)(7)(F)

This matrix is similar, but not identical to that in Appendix D. In the case below, protection against radiological sabotage is required. One of the response actions is to place the plant process into a state that is resistant to radiological sabotage. Accordingly, the matrix below shows the plant operations supervisor in the matrix because that operations supervisor must take the actions needed to place the plant process into this sabotage-resistant state. This illustrates the kind of tailoring needed in the Responsibility Matrix for the specific contingency response decisions and actions at a given facility.

D.1 Additional Guidance

The Responsibility Matrix must clearly assign responsibility for all actions that are required to achieve the Generic Planning Base event objectives, employing the security assets described in the Licensee Planning Base.

(b)(7)(F)

Figure E-1. Example Responsibility Matrix Element

Unauthorized entry into the protected area

	Alarm Station Operators	Armed Responders (including TRT)	Tactical Response Team Leader	Senior Onsite Security Supervisor	Non-Responders	Operations Supervisor
Initiate response to pre-established defensive position upon intrusion alarm.	X					
Response to defensive position		X	X			
Determine that an intrusion or possible theft is underway. (One operator assesses, the other assures that assessment was made.)	X					
Inform responders of location of alarm and location and nature of adversaries.	X					
Adjust response according to pre-planned strategy, interdict adversaries, (b)(7)(F)		X	X			
Provide command and control.			X			
Request LLEA assistance.	X					
Make general plant alert.	X					
Inform plant and operations management.				X		
Coordinate communications.	X					
Provide management oversight from alarm station. (b)(7)(F)				X		
In accordance with pre-established procedure and criteria, place the plant process into sabotage resistant state and secure SSNM in vaults or process equipment.						X
Transfer onsite responsibility to LLEA for apprehension.				X		
Declare event terminated.				X		

E. Procedures

Although the procedures are not required to be submitted with the Safeguards Contingency Response Plan, they should be reviewed at the licensed facility prior to approval of the Safeguards Contingency Response Plan.

E.1 Additional Guidance

The procedures should clearly and effectively detail the actions assigned to each individual / organization in the Responsibility Matrix and provide the requisite tactical instruction to achieve the Generic Planning Base event objectives, employing the security assets described in the Licensee Planning Base. The procedures should rely solely upon assets described in the Licensee Planning Base (i.e., they do not rely upon additional equipment or supplementary forces not included in the Licensee Planning Base). The procedures should be consistent with analysis and validation exercises demonstrating that the overall security system is able to achieve the Generic Planning Base event objectives.

II. FACILITIES SITED ON DEPARTMENT OF ENERGY RESERVATIONS

A. Generic Planning Base

Siting the licensed facility on a Department of Energy (DOE) reservation does not generally affect the perceived danger / threat. However, if security assets are shared between DOE facilities and the licensed facility, then the Generic Planning Base needs to include a small number of events involving the DOE facilities, such as indications of attempted forced entry into one of the DOE facilities.

(b)(7)(F)

The Generic Planning Base should also consider the possible effects of abnormal events (e.g.,accidents or incidents) at DOE facilities on the security posture of the licensed facility. This type of event can generally be incorporated into the Generic Planning Base event addressing natural phenomena or other events that threaten to degrade or actually degrade security.

A.1 Additional Guidance

The Generic Planning Base should include appropriate consideration of the effects of threats and abnormal events at DOE facilities on the site upon the security posture of the licensed facility.

B. Licensee Planning Base

(b)(7)(F)

(b)(7)(F)

[3]See 10 CFR 73.46(b)(1).

(b)(7)(F)

[redacted]

[a] In this context, the term *such equipment* means not only the equipment items taken credit for, but also any ancillary structures, systems, or components necessary for the credited equipment items to operate in accordance with NRC regulations, orders, or applicable license conditions. For example, if an intrusion detection system were credited, the term *such equipment*, would include, at a minimum, the credited intrusion detection system, its power supply, the communications equipment linking it with the licensee's central and secondary alarm stations, and the power supply for this communications equipment.

(b)(7)(F)

Although computer modeling of the type typically used in SSSP risk assessment can be valuable in designing the safeguards system, safeguards system effectiveness must be validated by exercises that demonstrate the overall security system performance, as required by 10 CFR 73.46(b)(9). For new facilities, the Safeguards Contingency Response Plan should include commitments to perform such exercises prior to facility startup. General guidance for the design and conduct of such exercises is found in NUREG/CR-5081, *Tactical Exercise Planning Handbook*.

B.1 Additional Guidance

The Licensee Planning Base must clearly identify which security assets are provided by the licensed facility and which, if any, are provided by the DOE site. The Safeguards Contingency Response Plan should include or describe an interface agreement between the licensed facility and the DOE site relating to the provision of all security forces and other security assets included in the Licensee Planning Base. The interface agreement clearly shows the licensee's responsibility to NRC for assuring that these assets are employed and maintained as required to meet NRC regulations and the commitments made in the security plan and Safeguards Contingency Response Plan. The interface agreement provides for appropriate NRC access to these assets and all records and reports, generated by or about them, that are required to meet NRC regulations and the commitments made in the security plan and Safeguards Contingency Response Plan. The interface agreement provides for NRC observation of performance tests of these security assets and NRC authority to direct that tests be performed to demonstrate that these assets are capable of meeting NRC regulations and the commitments made in the security plan and Safeguards Contingency Response Plan. The Safeguards Contingency Response Plan clearly delineates the interfaces, and respective roles and responsibilities, of licensee and DOE site management for actions that might affect the capabilities of any DOE security assets, including response forces, for which credit is taken in the Safeguards Contingency Response Plan, to perform in accordance with license conditions.

The Licensee Planning Base must identify resources that are adequate to achieve the Licensee Planning Base event objectives. The adequacy of these resources should be demonstrated by analysis and validated by exercises that demonstrate the overall security system performance, as required by 10 CFR 73.46(b)(9). The validation should be accomplished prior to facility startup.

(b)(7)(F)

C. Responsibility Matrix

The Responsibility Matrix needs to clearly delineate the responsibilities of any DOE safeguards and security assets that are relied upon. The Responsibility Matrix also needs to identify the positions within the licensed facility security organization that are responsible for requesting support from these DOE site assets and for integrating them into the overall response.

C.1 Additional Guidance

The Responsibility Matrix should clearly identify which activities are the responsibilities of member of the licensee organization and which are responsibilities of members of the DOE site security organization or other DOE site organizations. The responsibilities assigned to the DOE site organizations should be consistent with the interface agreement between the licensed facility and the DOE site. All licensee organizational elements responsible for requesting support from the DOE site and the situations under which the support will be requested should be clearly identified in the Responsibility Matrix. The licensee organizational elements responsible for integrating the licensee and DOE site security assets into an integrated response and the command and control responsibilities for the integrated force should be clearly delineated. These protocols and roles and responsibilities should be consistent with the interface agreement between the licensed facility and the DOE site. The circumstances in which DOE resources are requested and the command and control responsibilities for the integrated force should be consistent with the demonstration that the resources in the Licensee Planning Base are adequate to achieve the Generic Planning Base event objectives.

D. Procedures

Although the procedures are not required to be submitted with the Safeguards Contingency Response Plan, they are reviewed at the licensed facility prior to approval of the Safeguards Contingency Response Plan.

D.1 Additional Guidance

The procedures should clearly and effectively detail the actions assigned to each licensee and, where appropriate, DOE site staff member / organization in the Responsibility Matrix and provide the requisite instruction to achieve the Licensee

Planning Base event objectives employing the security assets described in the Licensee Planning Base. The licensee procedures should be consistent with the corresponding DOE site security organization procedures, including consistent and clear definition of roles and responsibilities. The procedures should delineate a clear roles and responsibilities, including chain of command, for all response forces / activities that integrate licensee and DOE site security assets. The procedures must rely solely upon assets described in the Licensee Planning Base (i.e., they do not rely upon additional equipment or supplementary forces not included in the Licensee Planning Base). The procedures should be consistent with analysis and validation exercises demonstrating that the overall security system is able to achieve the Licensee Planning Base event objectives.

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10. SUPPLEMENTARY NOTES

A. Rayland, NRC Technical Monitor

11. ABSTRACT *(200 words or less)*

This document is a Standard Review Plan (SRP) for evaluating Safeguards Contingency Response Plans for Category I fuel facilities. Conducting a review according to an SRP ensures that license applicants address every pertinent U.S. Nuclear Regulatory Commission (NRC) requirement in their NRC-approved Safeguards Contingency Response Plans and ensures consistency and comprehensiveness in the NRC review of the plans. The information presented here utilizes a "modular" format to streamline the information and facilitate its use.

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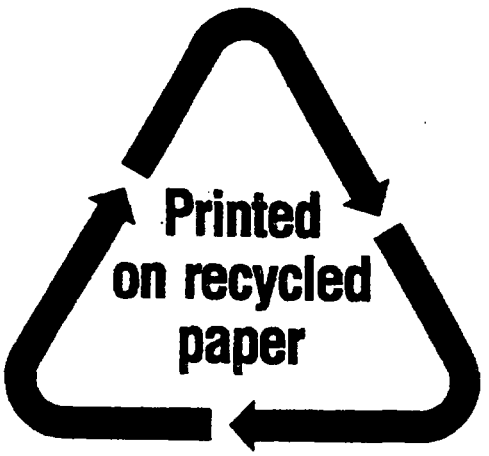

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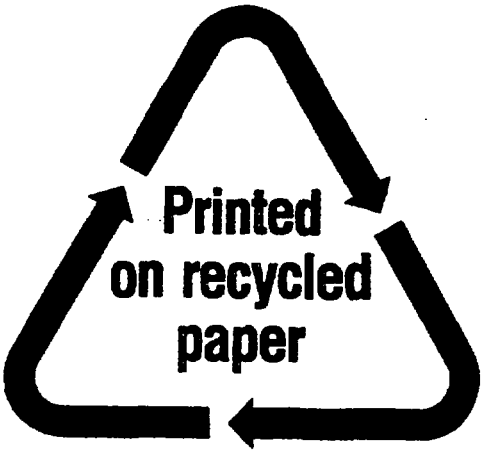

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