# APPENDIX A

Requirements-Based Surveillance and Maintenance Review Implementation Process,
Process Flow Chart and the Flow Chart Footnotes

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#### A. COMPONENTS OF THE RBSM PROCESS

# A.1 The RBSM Process

This section of the guideline is meant to be a companion piece for the RBSM Interview Form (Appendix B) and describes the basic mechanics of the RBSM process. Examples are provided to clarify the review process and provide the reviewer with some of the rationale behind the questions that are asked. This companion piece does not emulate the exact order of the review process interview form but rather, attempts to address the major pathways that may be followed along the way to selecting a given disposition category.

The RBSM review process is outlined in a detailed flow chart which is subdivided into various sections. The RBSM Flow Chart is included in this appendix. The first section of the flow chart initially identifies the activity to be evaluated. The remaining sections include a series of sequential questions that attempt to identify the requirements for each

activity. The process allows analysis of the current facility/system conditions versus the requirements; compares the actual activity frequency versus required frequency; and identifies the recent or pending requirements changes. Information pertaining to each activity is gained by means of interviews with personnel who are the most knowledgeable of the activities.

The interview consists of a series of simple questions and uses an interview form that parallels the RBSM flow chart for the most part. On the interview form each question leads to either a subsequent question or to one of four disposition categories:

- 1) Candidate for cancellation,
- 2) Candidate for frequency change,
- 3) Candidate for further evaluation, or
- 4) No further evaluation required.

Depending on the activity under evaluation, the process may involve as few as 3 or as many as 17 questions, but should not entail more than 20-30 minutes of time for each activity under evaluation.

The evaluator may note in a few cases that the interview form or flow chart may appear to be following duplicate paths, that is, choosing yes or no to a particular question may lead you to the same follow-up question or to the same disposition category. Often however, subtle word changes in these areas make the question specific to the driver or the activity under evaluation at that point.

#### A.1.1 The RBSM Flow Chart

The RBSM Flow Chart is divided into 6 separate sections designated by the letters A through F. The flow chart represents the disposition framework that the RBSM review process was built upon but, is not intended to be used directly by an evaluator to conduct interviews.

Section A is the starting point of the RBSM Review Process and provides the initial determination as to an activity's driver. In this section, the process first separates activities into two distinct categories - "General/Administrative Support" and "Mission/Facility Support". These two groups of activities have similarities that allow for their common review initially, yet as questions become more specific, each category needs to be treated separately. From this section, the evaluator may be directed to Sections B through F to complete the review of that activity.

Sections B, C and D include follow-on questions related to those activities under the "Mission/Facility Support" category. Sections E and F relate to the "General/Administrative Support" category.

The questions contained in Sections A through F will be discussed in more detail below.

# A.2 The RBSM Interview Form

To aid the evaluator with the interview process, an RBSM Interview Form (Appendix B) was developed from the flow chart. The Interview Form is divided into the same general sections as the flow chart, but includes a cover page and an additional section, Section G. Section G was not included as part of the flow chart and is an administrative section of the interview form used to determine and denote the sub-categorization of activities that are dispositioned as "Further Evaluation Required."

As discussed, this RBSM companion piece <u>does not</u> emulate the exact flow of the process flow chart or the step-by-step sequence of the interview form. It does however, assist the evaluator in interpreting the questions asked on the interview form.

## A.2.1 Completing the Cover Page

The coversheet is part of the RBSM interview evaluation form and serves to gather general information about each activity being evaluated. Sections of this evaluation coversheet are lettered A-J and are described below.

#### A. Evaluator -

This section is where the person conducting the interview records his or her name and title.

#### B. Interviewee -

This section is used to by the evaluator to record the name, organization, and phone number of the individual being interviewed. Special care should be taken to ensure that all of this information is complete and accurate.

### C. <u>Activity Name</u> -

This section is used to record the name of the activity and whether or not it is considered to be a "General/Administrative Support" or "Mission/Facility

Support" activity.

#### Note:

The terms "General/Administrative Support" and "Mission/Facility Support" are derived from terms used in the Functional Support Cost Reporting System (FSCRS). Under this reporting system, support costs are divided among 24 elements aggregated into two major categories- "General Support" and "Mission Support". The words Administrative and Facility were added to assist those evaluators unfamiliar with the FSCRS terminology. The definitions of these categories in the FSCRS are the same as that within the RBSM Review Process except that all job specific training programs will be evaluated under the General/Administrative category.

An activity should be categorized as "General/Administrative Support" if it involves the management of a facility or site. Examples of general/administrative activities include: training, medical surveillance, the management of records, status tracking and reporting, procurement, legal, information services, human resources and project management. A listing of administrative activities is also included in the RBSM Flow Chart Footnotes in this appendix. All other activities should be categorized as "Mission/Facility Support". Typically, "Mission/Facility Support" activities are those that are performed by personnel from plant organizations such as operations, maintenance, radiation protection, environmental protection, utilities, Safeguards/Security and fire systems.

**Note:** Although there may be several other activities that are considered general/administrative, for the purposes of the RBSM process, only those administrative activities that represent a significant portion of the S&M budget warrant evaluation.

### D. <u>Safety Related</u> -

This section is simply completed by asking the person being interviewed if the activity is considered safety related or not and then checking the correct block.

### E. <u>Procedure #</u> -

Information captured in this section should be the current site/facility procedure for how the activity is to be performed. This will sometimes identify drivers and

activity frequency requirements not captured through the RBSM decision process.

# F. Charge # -

This section collects activity budget information that is important in later stages of the RBSM evaluation process.

# G. Frequency for Conducting the Activity -

Records how often the activity is performed which is important when calculating the cost of performing an activity.

H. Will the performance of this activity be required until this facility is dispositioned? When will the performance of this activity no longer be required?

Data captured in this section attempts to gauge the length of time remaining for which the facility will be performing the activity, information that proves useful for making out-year activity cost projections and developing facility budgets. S&M requirements of today may cease to exist at various points in a facility's life cycle. Some activities may be required throughout the entire facility life cycle - through decommissioning. Examples of such activities include: surveillance and maintenance of HVAC systems, utilities, electrical systems, and the performance of periodic radiological surveys. Another set of requirements may be needed only through the end of deactivation, such as glovebox magnahelix or fire system surveillances. Finally, other activities may be associated with interim/in-process deactivation endpoints. An example of these activities include the cessation of RCRA surveillances upon the removal of a hazardous materials storage area from a facility.

I. <u>Approximate number of personnel and man-hours required to complete the activity each time it is performed.</u>

In this section, the evaluator records the number of personnel involved in performing the activity each time it is performed and the average time (man-hours) it takes to complete the activity start to finish. Any support craft or personnel required should be included in this estimate.

**Note:** Time estimate should include all pre- and post-evolution time spent preparing and securing from the activity.

### J. Comments -

This section can be used by the evaluator to capture additional data he or she deems important to the evaluation of an activity. Of particular importance would be the rationale/justification for the category assignment of this activity, especially if some judgement was involved in making that assignment.

### A.2.2 <u>Completing Section A</u> (See flow chart for visual cue)

In the discussions below, details provided about each driver category apply equally whether following the "General/Administrative Support" or "Mission/Facility Support" paths. Any exceptions to this logic will be discussed at their occurrence.

# A.2.2.1 <u>Identifying the Driver Category</u>

Work performed in the DOE complex has been divided into seven driver categories that make up the physical backbone of the flow chart. These drivers have been ordered in a hierarchial manner with the first driver category representing the highest level of consequence should a facility not adhere to the requirements of that driver category.

The seven driver categories are:

Regulatory Requirement
DNFSB or Stakeholder Commitments
DOE Orders
Technical Safety Documents
National Commercial Standards
Technical or Vendor Specifications
Best Practices or Lessons Learned

These categories apply to both the "General/Administrative Support" or "Mission/Facility Support" paths with the exception that the "General/Administrative Support" path does not include Technical or Vendor Specifications. Typically, Technical or Vendor Specifications apply to systems, components or individual equipment items and not to work that is administrative in nature.

## A.2.2.2 Conducting a Multiple Driver Analysis

In some cases, more than one driver category may be associated with an activity. In these situations, it is important to closely evaluate the wording and content of

the drivers themselves. The evaluator needs to determine if the apparent driver contains the necessary information to identify the specific actions and frequencies associated with the activity, or whether it simply references another driver. For example, DOE Order 5480.7A (Fire Protection) requires a facility to follow the standards set in the National Fire Protection Association codes (NFPA). The NFPA driver, a national commercial standard, establishes the specific actions to be followed by the facility.

Where two or more driver categories are associated with an activity, each category may provide the necessary level of detail identifying the component actions and frequency for an activity. When the primary driver category is not apparent, the evaluator should follow the path of the highest level driver category in the hierarchy. For example, actions taken by a facility's Radiation Protection Program are determined by requirements outlined in 10CFR835 (Regulatory Requirement) and the Site Radcon Manual (Technical Safety Documents). This activity should be categorized as a Federal, State or Local Regulation since this is the higher driver category in the hierarchy.

# A.2.2.3 <u>Determining an Activity's Driver</u>

This section provides the necessary RBSM information and guidance to support the decision process in selecting the appropriate driver and determining the appropriate activity disposition category.

## **Regulatory Requirements**

**Question A-1:** *Is the activity driven by a regulatory requirement?* 

This question identifies those activities that are driven by a regulatory requirement which is imposed by an external regulatory agency and which is applicable to operations at that site or at that facility. Examples of regulatory requirements would include OSHA and NRC regulations, Resource Conservation and Recovery Act (RCRA) regulations, other applicable requirements within the Code of Federal Regulations (CFR), and applicable state or local laws and regulations. Appendix D contains a list of regulations that may apply to activities within the Department of Energy.

#### **Commitments**

**Question A-4:** Is the activity driven by a commitment to the DNFSB or to a stakeholder group?

Identifies activities that are driven by a commitment to any one of a number of

stakeholder organizations including the Defense Nuclear Facilities Safety Board (DNFSB), to a sovereign Indian Nation, or to a local citizens advisory board. A Federal Facility Compliance Agreement would also count as a commitment. These commitments would cover specific activities or actions to be taken at a facility or site.

#### **DOE Orders**

**Question A-7:** *Is the activity driven by a DOE Order?* 

DOE Orders were developed to provide a common approach for administration and operations at the many sites within the DOE complex. Since these sites vary widely in their design, operation, and mission, the implementation of a DOE Order may vary accordingly. While the specifics may be contained in a site developed implementation plan, the DOE Order still serves as the driver category for that activity. Appendix D contains a listing of DOE Orders that may apply to the activity under evaluation.

### **Technical Safety Documents**

**Question A-14:** *Is the activity addressed in a technical safety document?* 

Technical safety documents are normally written to establish a facility's envelope of safe operations. They may be broad in nature, such as an Operational Safety Requirements (OSR) document written for a facility or group of facilities, or as specific as an Unreviewed Safety Question Determination that addresses concerns at a facility. A more complete listing of technical safety document examples can be found in the RBSM Flow Chart Footnotes in this appendix.

#### **National Commercial Standards**

**Question A-17:** Is the activity being performed based on national commercial standards?

Nationally recognized standards were developed over time in response to a need for standardization and excellence primarily where safety is of utmost concern. Although not legally binding (unless referred or required under a Federal standard), these standards are widely recognized and followed throughout the Department and industry. A few examples are provided in the RBSM Flow Chart Footnotes in this appendix.

#### **Technical or Vendor Specifications**

**Question A-19:** *Is the activity being performed in accordance with (IAW) vendor or technical specifications?* 

In some cases, an activity may be driven based on a manufacturer's specifications on how best to repair or maintain the equipment they provide. In the absence or in lieu of a manufacturer's specification, engineering may determine the requirements of this activity. These activities normally are related to individual or specific items of equipment, components of systems, or areas; rather than the more broadly applied driver categories discussed above. As discussed previously, this driver category would not apply to "General/Administrative Support" activities.

#### **Best Practices or Lessons Learned**

**Question A-22:** Is this activity based on <u>best practices</u> or on lessons "Mission/Facility" learned?

**Question A-22:** Is this activity based on <u>best management practices</u> or on "General/Admin" lessons learned?

There will be cases where an activity is being conducted based on requirements established in response to a past concern at a facility. Often times a lessons learned type of document may be prepared which identifies the follow-up surveillance and maintenance actions to be taken. In addition, some activities have frequently evolved from best industry surveillance/maintenance practices, best management practices, or are recognized as "the right thing to do". Although it is probably not written down as such, this activity would be widely acknowledged and accepted.

# A.2.2.4 Reaching an End to the Driver Categories

When an evaluator has responded "no" to each of the driver category questions, it must be assumed that there is no identified justification for the performance of that activity. Therefore, this activity will be dispositioned as a "Candidate for Cancellation".

## A.2.2.5 Evaluating an Activity Associated With A Driver Category

Once the driver category has been established for the activity being evaluated, the evaluation process continues with a series of questions pertinent to the driver category. The intent of these questions is to determine: 1) the continued applicability of the driver to the current activity, 2) whether relief can be obtained from these "requirements", 3) if the activity supports the current or future mission

of the facility, 4) if the activity has a safety related role, and 5) if the activity's frequency is consistent with the requirement, where stated.

For the purposes of simplicity, we have chosen to individually discuss the questions that comprise the branch leading from the selection of a driver category. Each branch will be followed to its end, that is, to the resulting dispositioning of the activity or to where the process directs the evaluator to another section of the interview form. Some questions may be repeated throughout the interview form. On the first use of a question, this guideline will discuss the question in detail. Subsequent uses of the same question will refer the evaluator to the section of the guideline where the question was first asked. If there are subtle changes in the wording or intent of the repeated question as it is used in that branch, clarification will be provided at that point.

In general, questions A-1 through A-23 on the interview form apply to both the "General/Administrative Support" or "Mission/Facility Support" categories. Exceptions to this are questions A-20 and A-23, that deal with "vendor technical specifications" and only apply under the "Mission/Facility Support" area.

# Regulatory Requirement

**Question A-2:** Have operations or conditions changed significantly such that the driver is no longer applicable to this activity?

Operations or conditions at a facility may have significantly changed since the inception of this activity such that the facility no longer needs to perform this task. The evaluator should question the intent of the driver and how the activity is meeting that intent. If operations or conditions have changed such that this activity no longer serves the intended purpose of the driver or that the conditions no longer exist that make this driver applicable, this question should be answered "yes" and the activity dispositioned as a Candidate for Cancellation. Figure 1 below illustrates this case.

#### Example:

10CFR835 requires that daily radiation exposure surveys be conducted in office spaces located in Radiological Buffer Areas where the potential exists for external radiation exposure. The intent of this regulation was to protect the worker from unnecessary radiation exposure that could arise from the effects of changing radiation levels. Facility A continues to perform these surveys despite the fact that two years ago, the only activity that resulted in the potential for external exposure was discontinued and the bulk of the material removed from the area during deactivation. In the case of Facility A, this activity could be canceled since the conditions that lead to the concern addressed by this regulation no longer exists.

**Figure 1:** Canceling an Activity

**Question A-3:** Can and/or should this requirement be renegotiated?

This narrative questions the need and ability of the facility to renegotiate the requirement with the regulator or other originator, if a change in the regulatory requirement has been determined to be desirable. Industry experience has determined that the details of many regulations are subject to interpretation and are often the result of negotiations between the regulator and the regulated. If the facility is currently seeking relief or expects to seek relief based on the knowledge that it has been granted in the past, then the question should be answered "yes".

However, if a change in the activity is desirable and the facility has not considered seeking relief previously and knows of no specific or historical impedance to this request, answer the question with "maybe". A "yes" or a "maybe" to this question will disposition the activity as a "Candidate for Further Evaluation". This is the appropriate category since it may not be possible at this time to know what the results of this regulatory relief will be.

If the interviewee knows that the facility has attempted to renegotiate the requirements of this activity, and no relief was granted; or that there is specific or historical knowledge that the regulator will reject a request for relief; or if it has been determined that the activity is appropriate to fulfilling the intent of the regulatory driver, this question should be answered "no".

### **Commitments**

**Question A-5:** Have operations or conditions changed significantly such

that the driver is no longer applicable to this activity?

**Question A-6:** Can and/or should this requirement be renegotiated?

These questions are identical to Questions A-2 and A-3 above, except that they refer to commitments made with stakeholder organizations, the DNFSB, sovereign Indian Nations or similar group.

#### DOE Orders

**Question A-8:** Have operations or conditions changed significantly such

Refer to Question A-2 above and Figure 2 below for an example of this type of situation.

#### Example:

Special nuclear materials may have been stabilized and no longer require the level of surveillance they had in their unstabilized state. Or the cessation of production activities may not have been accompanied by an adjustment in surveillance and maintenance activities.

**Figure 2:** When a Driver No Longer Applies

**Question A-9:** Has a documented evaluation been done to establish the

"Mission/Facility" need and the frequency of this activity?

**Ouestion A-9:** Has a documented evaluation been done to establish the

"General/Admin" frequency or level of effort for this activity?

More often than not, DOE Orders themselves do not specify what activity is to be performed to meet the intent of an order nor do they identify the frequency of actions to be taken. This question is intended to determine if a documented analysis or evaluation has been conducted to determine the necessary actions and their frequencies required to meet the intent of the applicable DOE Order. In some cases a Standards/Requirements Identification Document (S/RID) and/or a Necessary and Sufficient (N&S) Process may have been used to determine the actions required. In other instances, some other form of engineering analysis may have been done.

**Question A-10:** Has this activity been revised to reflect the results of this evaluation?

Once the documented evaluation addressed in Question A-9 has been accomplished, those findings should be incorporated into the procedure or other work document that governs this activity. This question simply asks if the activity has been developed or updated to include the results of the evaluation. If the answer is "yes", the work effort is assumed to be done correctly and being accomplished at the required frequency, and thus can be dispositioned appropriately as an activity with "No Further Evaluation Required". Answer this

question "no" if the procedure or other work document has not yet been updated to reflect the findings in the evaluation.

**Question A-11:** Has the Order been revised in the past 2 years?

This question in the RBSM guideline asks if the DOE Order associated with this activity under evaluation has been updated in the past two years. Many of the former four digit DOE Orders have undergone extensive order revision in the past few years and have been replaced with three digit orders. In many cases the requirements have changed in the revision process. The question is a tool to determine the vintage of the DOE Order requirement since it has been determined by a previous question (A-9) that a documented analysis or evaluation has not been performed.

**Question A-12:** Has the current activity been updated to reflect the revised DOE Order?

This question is similar in intent to A-10. It allows the evaluator to establish if the activity under review has been updated to reflect the requirements of the recently revised DOE Order. If the activity has not been revised, answer "no" and disposition it as a "Candidate for Further Evaluation". In that the activity has not been updated, there may be several opportunities for scope or frequency changes resulting in cost savings to the facility.

**Question A-13:** Can and/or should relief be obtained from performing all or part of this activity?

At this point in the RBSM Review Process, the evaluator has already determined that the activity under review is required by the recently revised DOE Order and that the activity has incorporated all updates. However, if the activity has not undergone any type of a documented analysis or evaluation to determine the necessary actions and their frequencies required to meet the intent of the applicable DOE Order then potential relief is possible. This question serves to determine whether relief can be obtained from the order requirements.

# <u>Technical Safety Document Requirement</u>

**Question A-15:** Have operations or conditions changed significantly such that the driver is no longer applicable to this activity?

As in the previous driver category branches, the question (identical to Question A-

2) is asked to challenge if operations or conditions have significantly changed since the inception of this activity under this driver category. The challenge is answered in the same manner as before.

**Question A-16:** *Is the activity being conducted in accordance with the technical safety document?* 

As previously discussed, there are a number of technical safety documents that contain requirements relative to actions to be taken and their appropriate frequency. This question ensures the evaluator that the activity is being conducted in accordance with the requirements, including the established frequency. If the activity is not being performed as specified in the technical safety document, answer "no" and disposition it as a "Candidate for Further Evaluation". If the technical safety document does not specify the frequency the activity is to be conducted, answer "no".

# National Commercial Standards Requirement

**Question A-18:** Have operations or conditions changed significantly such that the driver is no longer applicable to this activity?

As with the previous driver categories, this question is asked to challenge if operations or conditions have significantly changed since the inception of this activity under this driver category. If operations or conditions have changed answer "yes" and disposition the activity as a "Candidate for Cancellation".

The "no" answer, however, is treated somewhat differently in this section. As discussed earlier under the National Commercial Standards driver category (Question A-17), these standards have been developed over time in response to a need for standardization and excellence primarily where safety is of utmost concern. Since they are not legally binding (unless referenced in a legally binding driver), there is no need to ask a follow-up question to determine if relief can be obtained. If operations or conditions have not significantly changed, answer the question "no".

#### Technical or Vendor Specification Requirement

**Question A-20:** Have operations or conditions changed significantly such that the driver is no longer applicable to this activity?

This question is similar to Question A-18. If operations or conditions have changed disposition the activity as a "Candidate for Cancellation". Also, as in Question A-18 above, since activities in this category are also not legally binding, asking to seek relief would not be pertinent.

**Question A-21:** Has a graded approach been taken to the performance of this activity?

In some cases, an activity is developed which incorporates the technical and/or vendor specifications exactly as stated without regard to application. Many times the full scale of vendor specifications or requirements is not needed; therefore, this would be considered a graded approach. If the answer to this question is "no", disposition it as a "Candidate for Further Evaluation".

## Best Practices or Lessons Learned Requirement

**Question A-23:** Have operations or conditions changed significantly such that the driver is no longer applicable to this activity?

In this last driver category, the question is again asked to challenge if operations or conditions have significantly changed since the inception of this activity under this driver category.

However, as with Question A-18, the "no" answer is again treated differently. In that activities evaluated under this driver are often developed from a lessons learned type of document, in accordance with best management practices, or are recognized as "the right thing to do", a recognized method of establishing a frequency for the activity is not universal and therefore will not be directly questioned in this process. What is evaluated however, is the reason for doing the activity if, the activity is not addressing a safety related concern. Since activities in this category are also not binding, questions asking to seek relief would not be pertinent.

## A.2.3 <u>Completing Section B</u> (See flow chart for visual cue)

Separating Activities by Sub-categories: Material, System/Component, Area/room, and Equipment Concerns

As shown on the flow chart and as part of the interview form, activities under the "Mission/Facility Support" category are further separated here in Section B in order to address specific concerns in each of these sub-categories. Evaluating activities in these sub-categories also allows the evaluator to later provide reports on activities that are similar in nature even though the requirements may be from differing driver categories.

Each branch is discussed in detail before continuing on to the next branch.

**Note:** For the purposes of the RBSM process, the universe of "things" that an activity could be performed on was divided into the four categories discussed above: 1) material, 2) system or component, 3) area/room, or 4) equipment. These categories are broad enough such that the vast majority of activities would apply to one of these. However, if the evaluator reaches question B-5 and does not believe that the activity in question can be placed into any one of these four categories, the evaluator should first re-think questions B-1, B-4, and B-5 taking a broader interpretation of each of these categories. If this still fails in the categorization of this activity, then the RBSM process cannot be used to evaluate this particular activity.

### **Question B-1:** *Is this activity performed on a material?*

This question separates those activities that are being performed on all forms of materials. For the purpose of this evaluation, a material is defined as any chemical, hazardous, radioactive or special case item undergoing any form of surveillance, storage, treatment and/or disposal. It is important to address these activities separately since there are different concerns regarding materials that do not exist with an area/room or with hardware.

**Question B-2:** Are there identified vulnerabilities with this material in its current configuration?

The vulnerability associated with the material is established here. Due to the complexities of many of the hazardous and/or radioactive materials, special care must be given to establishing the risks and vulnerabilities associated with the storage or handling of these materials. Vulnerabilities may include consideration of the hazardous condition of the material itself or the condition of the material in its environment that contributes to the overall risk imposed by the hazard. A listing of some of the DOE's commissioned studies on vulnerabilities can be found in the RBSM Flow Chart Footnotes in this appendix.

**Question B-3:** *Is this activity being performed specifically to address these vulnerabilities?* 

This question establishes whether or not the activity being performed on this material is being done specifically to address the identified vulnerabilities. If not, disposition the activity as a "Candidate for Further Evaluation" since further study is required to determine if any benefit exists from the performance of this activity or if this activity is simply done to meet a specific requirement. If the activity is being performed to address the vulnerability, there would be no need to evaluate this activity any further.

Include the name of the study or report citing this vulnerability in the comments space provided on the Interview Form. Figure 3 illustrates this point.

#### **Example:**

In September 1994, the Department issued its Chemical Safety Vulnerability Working Group Report. In this report, Site A was cited for not storing hazardous chemicals in an area with adequate fire detection and suppression systems. In response to this identified vulnerability, the Site decided to supplement its existing roving fire watch until an adequate facility could be found or necessary upgrades made.

Figure 3: Addressing a Specific Vulnerability

**Question B-4:** Is this activity performed on a system or one of its components?

There are many and varying systems located at facilities within the DOE complex. For this reason, it is difficult to provide a standard definition of a "system". Even though it is recognized that some flexibility of definition is warranted, a system should serve a specific, common purpose or function. Systems will have various components that together are required for the defined process of the system to function. Examples of systems are electrical, water or gas utilities, fire protection, and operational processes. Components (i.e. individual parts of a system such as a pump, valve, meter, etc.) of any of these systems should also be evaluated in this sub-category.

**Question B-5:** Is this activity performed on an area/room or on a piece of equipment?

Many times surveillance and maintenance activities that are not associated with a system or material are performed in areas or rooms within a facility. Areas may be either inside or outside of a given facility (i.e., floors, walls, roofs, and surrounding grounds) and include small structures such as cargo containers, pits and underground vaults. The definition of an area/room may also include small structures such as cargo containers and under ground vaults. Systems, components, equipment and material are most often located in an area or room, but the evaluator will answer "area/room" if the surveillance and maintenance

activity is not directed at any of these contents but rather at the area or room itself. See Figure 4 below.

### Example:

Radiation Protection performs numerous surveillance activities that involve radiation exposure measurements in the Radiological Buffer Area. If the source of the radiation is due to a specific waste or SNM (called a Point Source) which can be treated, stabilized, packaged and shipped out, then the activity relates to a material. If the source of the radiation is contamination that can only be removed through D&D, then the activity relates to and area/room.

Figure 4: Surveillance of an Area/Room

A piece of equipment is not the same as a component of a system. A piece of equipment is defined as a "stand alone" item that does not depend on any other equipment or component to perform its function. Examples include Measurement and Test Equipment (MT&E), radiation survey instruments, shop power tools, laboratory balances, and hand held instruments. For a description of this see Figures 5 and 6 below.

#### **Example:**

Facility A performs a monthly inspection of all fire extinguishers, checking to ensure that they are fully charged and located according to the facility's fire protection plan. While a fire extinguisher hanging on a wall may be considered an important part of a fire protection program, since they are not connected to the sprinkler system piping or connected to the central fire alarm system, they are considered a piece of equipment.

Figure 5: Characterizing a Piece of Equipment

#### Example:

A hoist or other lifting apparatus contained inside a glove box is a component of that glove box since it is required for the operational performance of the glove box, whereas, the exact same device used in a shop area would be evaluated as a piece of equipment.

**Figure 6:** Determining Equipment as Part of a System

**Question B-6:** Is the system/component or equipment being operated to

support a current or future mission?

Is the activity being conducted to support a current or future mission?

Instances have been found where systems or components are operating but have no role in supporting a site's mission due to the changes in mission that the DOE has experienced since the weapons production years. For example, a ventilation system or radiation alarm system may be in operation, but if the facility in which they are installed has been deinventoried, then these systems have no mission, either present or future.

If the system or component does not support a current mission or a mission that may exist in the near future, then the system or component may not be necessary and the S&M activities associated with the system or component may not be necessary either.

Also, facilities may be performing routine surveillance or maintenance activities that once were a very necessary part of the facility's mission. However, as missions changed, sometimes slowly, these activities may have became so routine and expected that they are considered part of normal operations even though the reason for performing the task may have disappeared.

**Question B-7:** Is this activity being conducted for a safety related purpose?

Is the system/component or equipment being operated for a safety related purpose?

This question is one of several in the RBSM process that allows the evaluator the ability to categorize those activities that are being performed for safety related reasons. Many systems have been determined to be safety class items or safety related through engineering evaluations done in support of documents such as Operational Safety Requirements (OSR's).

As for equipment, the equipment may in itself function in a safety related role such as a fire extinguisher. Alternatively, the equipment may not in itself be safety-related, but may support safety-related equipment. A case in point would be a piece of equipment used to calibrate safety-related systems or equipment. The calibration equipment would be considered safety-related for the purposes of this evaluation.

**Question B-8:** *Is this safety related activity being conducted at a level* 

### greater than the minimal level required?

It is important to establish the appropriate frequency of an activity being performed. This frequency may be contained in the specific driver that has been established, or it may be in the resulting implementation plan or working procedure written to meet the intent of the driver. Many times the established frequency of an activity is greater than that which is required. If the activity being evaluated is being performed at a greater frequency than the required level established, the activity is a "Candidate for Frequency Change".

**Question B-9:** *Is the activity being conducted at a level greater than the minimal level required?* 

For activities evaluated on non-safety related systems or components, a slightly different approach is taken regarding the frequency. If the frequency of the activity is at a level greater than the minimum level established, disposition the activity as a "Candidate for Frequency Change" (the same as it is dispositioned for safety related). If the frequency is at the established level, disposition the activity as a "Candidate for Further Evaluation" (different than the dispositioning for correct frequency of a safety related activity). Even though this activity is being conducted at the correct frequency, the facility should look further into this activity since it is being performed against non safety related systems or components - where more flexibility exists in determining the need or frequency for an activity.

# A.2.4 <u>Completing Section C</u> (See flow chart for visual cue)

Section C is nearly identical to the previously discussed Section B. The difference is that the question regarding the frequency of the performance of the activity is not asked. Since prior to being directed to this section, the evaluator may have already established that the activity being evaluated is performed in accordance with a technical document which has identified frequencies, there is no need to question the frequency of the activity (as one would in the case of activities coming under Section B). Or, in the case when the driver is "Best Practices or Lessons Learned", the frequency of an activity is not an issue in that there may not be a reliable method for establishing a "correct" frequency in this driver category.

Since this section is similar to Section B, the evaluator will be referred to the appropriate parts of that previous section rather than repeat the same narrative. The differences will be discussed as they arise. If the evaluator has questions in definition or approach, then time should be spent on the referenced part of Section B prior to continuing on with the similar question in Section C.

**Question C-1:** *Is the activity performed on a material?* 

This question is consistent with the narrative in Question B-1. There is no difference in the definition of a "material" in any part of the RBSM Review Process.

**Question C-2:** Are there identified vulnerabilities with this material in its current configuration?

The vulnerability approach is addressed in Question B-2. If there are no known vulnerabilities, disposition the activity as a "Candidate for Frequency Change".

**Question C-3:** *Is this activity being performed specifically to address these vulnerabilities?* 

This question is the same as that stated in B-3. If the answer to this question is "no", disposition the activity as a "Candidate for Further Evaluation". If the activity is being performed to address a vulnerability, answer "yes" and disposition as "No Further Evaluation Required".

**Question C-4:** Is the activity being performed on a system or one of its components?

The narrative for this question is identical to that in Question B-4. If the activity being evaluated is being performed on a system or on one of its components, answer "yes".

**Question C-5:** Is the activity being performed on an area/room or on a piece of equipment?

This question is the same as Question B-5.

**Question C-6:** Is the activity being conducted to support a current or future mission?

Is the system/component or equipment being operated to support a current or future mission?

This question is the same as Question B-6. If the activity is being performed on an item of equipment that does not support a current or a future mission, disposition the activity as a "Candidate for Cancellation".

If the activity is being performed on a system or component that does not support

a current mission or a mission that may exist in the near future, answer "no" and disposition it as a "Candidate for Cancellation". If the system or component supports a current or a future mission, answer "yes".

**Question C-7:** *Is this activity being conducted for a safety related purpose?* 

Is the system/component or equipment being operated for a safety related purpose?

The narrative as to what is meant by safety related is consistent with that in B-7. This question, however, is a bit different in that it does not direct the evaluator to a frequency question for the reasons discussed previously. If the system or component is safety related, answer the question "yes" and disposition it as "No Further Evaluation Required". If it is not safety related, answer "no" and disposition the activity as a "Candidate for Further Evaluation". Again, the facility should look further into this activity since it is being performed against non-safety related systems or components.

# A.2.5 <u>Completing Section D</u> (See flow chart for visual cue)

This section is identical to Section C except that questions related to "material" do not have relevance to Section D. The evaluator would not find an activity involving a material that would be addressed by "Technical or Vendor Specifications" due to the very nature of the category, that is, Technical or Vendor Specifications are written to address the design, use, or maintenance of hardware. Refer to Section C narrative for discussion on frequency.

**Question D-1:** Is the activity performed on a system or one of its components?

This question is the same as Question C-4.

**Question D-2:** Is the activity performed on an area/room or on a piece of equipment?

This question is the same as Question C-5.

**Question D-3:** *Is the activity being conducted to support a current or future mission?* 

Is the system/component or equipment being operated to

support a current or future mission?

This question is the same as Question C-6.

**Question D-4:** *Is this activity being conducted for a safety related purpose?* 

Is the system/component or equipment being operated for a safety related purpose?

This question is the same as Question C-7.

#### A.2.6 Completing Section E (See flow chart for visual cue)

Section E further separates those activities being evaluated using the "General/Administrative Support" branch of the flow chart in order to address specific concerns in each of these sub-categories:

**Question E-1:** Does this activity involve the management of records, data, information, etc.?

Question E-1 separates those "General/Administrative Support" activities that are being performed which are related to the management of records, data gathering and management, and other similar efforts. Many areas of a site require this type of activity, but in some cases, there may be unnecessary efforts being taken.

**Question E-2:** Is this the only process on-site that can be used to perform this same task?

Often there is more than one organization at a given site or facility that has developed similar processes to track or manage the same or similar records, files, and data. This question is intended to identify management and/or tracking processes that duplicate others on a site that could be used at the facility.

If there are other known redundant processes to this activity that are currently or could be used to perform this task also, answer this question "no" and disposition the activity as a "Candidate for Cancellation".

**Question E-3:** Is this activity being conducted at a level greater than the minimal level required?

It is also important in the "General/Administrative Support" branch to establish the

frequency of an activity being performed. This frequency question asks how often, over what period of time is this activity required by the driver category or its implementing document, and what is the actual frequency of this activity. If the activity being evaluated is being performed at a level greater than the minimum level established, disposition it as a "Candidate for Frequency Change". If, however, it is being performed at a level consistent with the established frequency, disposition the activity for "No Further Evaluation Required".

**Question E-4:** Does this activity involve the development or review of records, procedures or work plans?

There are many administrative reasons for the ongoing reviews of policies, procedures, or work plans that govern the every day activities at a facility or a site. Examples of these documents may affect the entire site, specific facilities, specific organizations, or only a single task being performed. Since it has been found that often these reviews can be time consuming and may offer cost saving potential, this question sorts those activities from other administrative actions.

**Question E-5:** *Is this activity done for a safety related purpose?* 

This question is, again, one of several in the RBSM process that allows the evaluator the ability to categorize those activities that are being performed for safety related reasons. It is similar in approach to that taken in Question B-7. The evaluator may, however, need to take a broader approach to the safety related connection to this activity. A number of policies, procedures, and work plans have been generated over time due to nuclear, industrial, health and other safety concerns and these are not specifically related only to safety class items.

**Question E-6:** Is this safety related activity being conducted at a level greater than the minimal level required?

This question is similar in approach to Question B-8. If the review being evaluated is being performed at a level more frequent than the minimum level established, disposition it as a "Candidate for Frequency Change".

If, however, it is being performed at a level consistent with the established frequency, disposition the activity for "No Further Evaluation Required".

**Question E-7:** *Is this activity being conducted at a level greater than the minimal level required?* 

This question is similar to that in Question B-9 and therefore, also, has a slightly different approach regarding the frequency. If the frequency of the activity is at a

level greater than the minimum level established, disposition the activity as a "Candidate for Frequency Change" (same as it is dispositioned for safety related). If the frequency is at the established level, disposition the activity as a "Candidate for Further Evaluation" since even though this activity is being conducted at the correct frequency, the facility should look further into the absolute minimum needs for an activity that is not filling a safety related purpose.

**Question E-8:** Does this activity involve personnel or the procurement of goods and services?

A number of activities involve the support of personnel at a facility or a site. Those activities that are often done "for" personnel are defined as a personnel "General/Administrative Support" activity. Examples of these activities are: training, payroll, medical surveillance, and supervision. In addition, an employee may also participate in administrative efforts working with any one of a number of stakeholder organizations. This section of the RBSM process attempts to review those activities where the greatest potential cost savings are possible.

**Question E-9:** Does this activity involve personnel training or other routine requirements?

The training of personnel may be required for various reasons such as providing technical skills for a particular task or meeting a regulatory requirement of a particular class of worker.

**Question E-10:** Does the activity support the current job assignment of the individual?

This question asks the relationship of the training activity under evaluation to the employee's job assignment. Training is often required due to that person's employment on a given site. Additional training is required due to the job location (i.e., a radiological work area) and often to the scope of an employee's work activity (i.e., craftsperson, process operator, security guard, etc.). If this training activity does not support the employee's current job assignment, disposition it as a "Candidate for Cancellation".

**Question E-11:** *Is this activity being provided more frequently than required?* 

The evaluator should review this frequency question a bit differently than other similar questions. The amount of training should also be given consideration. Initial training of a subject area is sometimes intense and can take several hours to complete. If follow-up training is required, does the identified driver specify that

the original training requirement be met again, or is an abbreviated form of the training course satisfactory to meet the intent of the requirement? If the frequency and/or the amount of training is in excess of the required level, disposition the activity as a "Candidate for Frequency Change".

**Question E-12:** Do all the personnel in this classification need this requirement?

Due to job assignments, it may be required to provide training to all personnel equally. In other instances, only a percentage of the total personnel may need to be trained. In other cases, training may not be required at all (e.g., required training on an item of equipment that no longer exists in that department). If this activity is required for all personnel in this work classification, disposition it as an activity for "No Further Evaluation Required". If the activity is not required for all personnel in the work classification, disposition it as a "Candidate for Further Evaluation".

**Question E-13:** Does this involve activities related to stakeholder support?

Since the advent of activities such as environmental restoration and cleanup of the former nuclear/non-nuclear production sites, a number of activities have been identified that require personnel involvement with various stakeholder organizations. This question provides a separate evaluation of this type of activity.

**Question E-14:** Is the activity conducted at a level greater than that committed to?

This question is similar to other frequency queries. If the activity is at a level greater than required or committed to disposition the activity as a "Candidate for Frequency Change". If it is at the required level, disposition it as an activity with "No Further Evaluation Required".

**Question E-15:** Does the activity involve the supervision or oversight of personnel?

Management or supervision of personnel would involve regular direction of their work and assessments of their performance, the latter to include salary adjustments and hiring/retention decisions. Activities that do not involve the direct management or supervision of personnel are reviewed as "Oversight". Examples of this type of activity include those that are done for the purposes of ensuring quality, health and safety, engineering compliance, QA, QC, etc.

**Question E-16:** Does this activity involve the management/supervision of

### fewer than five direct supports?

Over time, an informal five (5) to one (1), employee to supervisor ratio, has been viewed as a desired minimum acceptable level. This area of the process allows the evaluator to review this ratio. If the management or supervisory ratio is fewer than 5 to 1, disposition the activity as "Candidate for Frequency Change". If it is at or greater than the above ratio, disposition it as "No Further Evaluation Required".

**Question E-17:** Does the driver specify the amount or frequency of oversight?

In that most all of the facilities on the various DOE sites have come to accept the need for oversight activities, an increased frequency and amount has evolved in recent years. It has not always been clear as to what was driving the "correct" amount of oversight. If the amount or frequency of oversight is not specified in the driver category, disposition the activity as a "Candidate for Further Evaluation". Dispositioning the activity in this way will allow for a review that should result in "value added" oversight.

**Question E-18:** *Is the activity being performed at the specified frequency?* 

This frequency question is only targeted at the oversight activity identified in the driver category. If the amount or frequency of oversight is being performed at the level identified, disposition the activity for "No Further Evaluation Required".

**Question E-19:** Is the procurement related to an identified safety class item?

Any facility or site within the DOE complex is involved in the procurement of many items on a daily basis. For many applications, actions must be taken to ensure the quality of the product dependent on its use. It is understood that additional efforts may be required, for example, for the procurement of systems or components related to safety class items to ensure that the item meets its safety related role.

Engineering evaluations have been done in many of the facilities throughout the DOE complex to establish the requirements necessary to maintain a safety envelope for that facility. Out of these evaluations have come identified safety class items required for maintaining the safety envelope. In some cases the bounds of the safety envelope have changed due to changes in mission or physical changes to a particular facility such as that which occurs during deactivation.

If the procurement activity under evaluation is related to an identified safety class item, disposition the activity for "No Further Evaluation Required".

**Question E-20:** Are safety class requirements being applied anyway?

If it is established (in Question E-19) that the item being procured is not related to any part of a safety class item, the evaluator should question the procurement actions being taken for this item. If safety class actions are being taken never-theless, disposition the activity as a "Candidate for Further Evaluation" so that a review can be conducted to identify why it is necessary to take excessive action for the procurement of a non safety class item. If such extraordinary procurement actions are not being taken, disposition the activity for "No Further Evaluation Required".

## A.2.7 Completing Section F (See flow chart for visual cue)

The difference between Section E and Section F is that in this section the question regarding the frequency of the performance of the activity is not asked. Previous to being directed to Section F, it has already been established in Section A that the activity being evaluated is either in accordance with a technical document which includes identified frequencies or that frequency is not an issue since there may not be a reliable method for establishing a "correct" frequency.

As has been done previously within this document, the evaluator will be referred to the appropriate parts of Section E, with differences in application being discussed as they arise. If the evaluator has questions in definition or approach, then time should be spent on the referenced part of Section E prior to continuing with the evaluation in Section F.

**Question F-1:** Does this activity involve the management of records, data, information, etc.?

This question segregates those "General/Administrative Support" activities that are related to the management of records, data gathering and management, and other similar efforts. Many areas of a site require this type of activity, but in some cases, there may be unnecessary efforts being taken. If the activity involves the management of records, data gathering and management, or other similar efforts, answer "yes".

**Question F-2:** Is this the only process on-site that can be used to perform this same task?

Question F-2 asks (as is also done in E-2) if there is any other known processes being used on site to track or manage the same or similar records, files, data and

the like. This question is intended to identify management and/or tracking processes that duplicate others on a site. If there are other processes that currently duplicate or could be used to perform the same task, disposition the activity as a "Candidate for Cancellation". If it is the only known process, disposition it for "No Further Evaluation Required".

**Question F-3:** Does this activity involve the development or review of records, procedures or work plans?

This question is similar in approach that of Question E-4. Examples of activities to be evaluated and a more descriptive narrative can be found in that section.

**Question F-4:** *Is this activity being done for a safety related purpose?* 

This question, again, categorizes those activities that are being performed for safety related reasons and is similar to Question E-5. The evaluator should not merely focus on whether the document is related to safety class items but should rather take a broad approach and determine if it is used to address some other safety related purpose (e.g., those prepared for nuclear, industrial, health and other safety concerns). If the review is being done for a safety related purpose, disposition the activity for "No Further Evaluation Required". If the review is not for a safety related purpose, disposition the activity as a "Candidate for Further Evaluation" since even though the frequency of this activity is not in question, the facility should look further into determining the minimum needs for performing reviews of documents that do not fill a safety related purpose.

**Question F-5:** Does this activity involve personnel or the procurement of goods and services?

As in Question E-8, activities evaluated here are performed in support of personnel or are better defined as a personnel "General/Administrative Support" activity.

If the activity under evaluation is being done "for" personnel, answer this question "Personnel".

Along with the absence of frequency type questions, personnel involvement in stakeholder organizations will also not be questioned here since the driver categories that direct the evaluator to Section F do not, by their nature, involve stakeholder activities.

**Question F-6:** Does this activity involve personnel training or other routine requirements?

This question is the same as Question E-9. The evaluator should refer to that question for the definition and approach to this question.

**Question F-7:** Does this activity support the current job assignment of this individual?

This question is identical to Question E-10.

**Question F-8:** Do all the personnel in this classification need this requirement?

This question is the same as Question E-12.

**Question F-9:** Does this activity involve the supervision or the oversight of personnel?

The management or supervision of personnel is reviewed in this section of the RBSM process as it is in Question E-15.

**Question F-10:** Does this activity involve the management/supervision of fewer than five direct supports?

This question is the same as Question E-16.

**Question F-11:** Is this procurement related to an identified safety class item?

Any facility or site within the DOE complex is involved in the procurement of many items on a daily basis. For many applications, actions must be taken to ensure the quality of the product dependent on its use. It is understood that additional efforts may be required, for example, for the procurement of systems or components related to safety class items to ensure that the item meets its safety related role. If the procurement activity under evaluation is related to a safety class item, answer "yes" and disposition the activity for "No Further Evaluation Required".

**Question F-12:** Are safety class requirements being applied anyway?

If safety class procurement actions are being taken, disposition the activity as a "Candidate for Further Evaluation". If it is determined through the process of this review that extraordinary procurement actions are not being taken, disposition the activity for "No Further Evaluation Required".

## A.2.8 Completing Section G (Not shown on flow chart)

Activities that are dispositioned as a "Candidate for Further Evaluation" are further divided into sub-categories to assist management in a prioritization of activities within this category. This prioritization is based on the amount of effort that would most likely be expended on reviewing this activity and obtaining the greatest return on that effort. When an activity has been determined to require further evaluation, the evaluator needs to disposition this activity into one of the following 4 sub-categories:

#### A. *Incomplete information*

This sub-category is chosen when the evaluator determines that not enough information is known about the activity to ascertain what the driver is. Additional research is required before the activity can be justified at its current level.

#### B. Intent and/or appropriateness

This sub-category is reserved for those activities where it is not immediately clear to the evaluator as to whether the activity is meeting the intent of the driver or if the driver itself is appropriate based on the facility's mission.

# C. Further review of activities

Use this sub-category in those cases where the evaluator is questioning the need to continue with a non-safety related activity even though there may be a driver requiring this activity. Depending on the driver, changing this activity may require obtaining relief from a regulator or from DOE-Headquarters, or re-evaluating the technical basis for the performance of this activity.

#### D. Further review/relief requirements

If a change in the frequency or level of effort for an activity requires the facility to request relief from a regulator or from DOE Headquarters, the activity should be placed in this sub-category.

#### **RBSM Flowchart Footnotes**

1. An activity is considered "General Support/Administrative" if it is involved in the management of a facility or site. Examples of key administrative activities that can be evaluated under the RBS&M process include: training, medical, records management, status tracking and reporting, information services, Legal, Public Relations, and Program Management. Although there are several other activities that are considered administrative, it was determined that their costs did not comprise a significant enough portion of the annual facility budget to warrent evaluation.

An activity that is not administrative falls under the category of "Mission/Facility Support". Typically, these activities are those that people perform on a system, component, material, room, etc. Examples include surveillances, maintenance, operations and testing.

- 2. An example of regulatory drivers and DOE Orders applicable to the Department's activities are included in Appendix D of this document.
- 3. A commitment is defined as an agreement made between the Department and a stakeholder group concerning activities or actions to be taken at a particular site or facility. If the commitment does not specifically detail the action to be taken (including the frequency), but instead requires the "development of action plans", then a commitment has not been made.
- 4. The following are typical of technical safety documents:

BIO	Basis for Interim Operations	TSR	Technical Safety Requirements
BFO	Basis For Operations	SSP	Shutdown/Standby Plan
<b>FSAR</b>	Final Safety Analysis Report	SAD	Safety Assessment Document
OSR	Operational Safety Requirements	SAR	Safety Analysis Report
<b>PSAR</b>	Preliminary Safety Analysis Report	SER	Safety Evaluation Report
PSE	Preliminary Safety Evaluation	USQD	Unreviewed Safety Question
			Determination

5. These activities reflect the use of nationally recognized commercial standards in the determination of an activity's scope and frequency. An example of such commercial standards include (see Appendix D for more complete listing):

ANSI American National Standards Institute NFPA National Fire Protection Association IEEE Institute of Electrical and Electronics Engineers

ASME American Society of Mechanical Engineers

IAEA International Atomic Energy Agency

NCRP National Council for Radiation Protection and Measurements

ICRP International Council for Radiation Protection and Measurements

INPO Institute of Nuclear Power Operations

NEI Nuclear Energy Institute
ANI American Nuclear Insurers

NIST National Institute of Standards and Technologies

NVLAP National Voluntary Laboratory Accredidation Program

DOELAP DOE Laboratory Accredidation Program

- 6. This requirement identifies an activity that has been deemed necessary based on an evaluation of past performance or on a lessons learned document.
- 7. A "documented evaluation" is defined as any formal, written review of an activity to determine the frequency and minimum number of actions to be taken. Examples include: reengineering, Necessary and Sufficient (N&S) and Standards/Requirements Identification Document (S/RID's).
- 8. A "material" is defined as any chemical, hazardous, radioactive or special case item undergoing surveillance, storage, treatment, and/or disposal.
- 9. A "system" is any component, or the combination of components, that serve a specific function, such as a facility's HVAC, fire protection, or electrical systems.
- 10. A "piece of equipment" is normally a single item that is independent of any particular system, such as a fire extinguisher, a tool or a survey instrument. An "area/room" is a physical structure that a system, component, equipment or material may be located in.
- 11. A hazard takes the form of a material or facility specific condition that poses a potential risk to human health or to the environment. Vulnerabilities include the consideration of the current condition of the material or facility hazard that contributes to the overall risk imposed by the hazard. The Department has commissioned several vulnerability studies to identify and address vulnerabilities within the Complex. Such studies include:
  - Plutonium working Group Report on ES&H Vulnerabilities Associated with the Department's Storage of Plutonium
  - Highly Enriched Uranium Vulnerability Study
  - Spent Fuel Working Group Report on Inventory and Storage of the Department's Spent Nuclear Fuel and Other Reactor Irradiated Nuclear Materials and Their ES&H Vulnerabilities

- Chemical Safety Vulnerability Working Group Report
- Complex-wide Review of DOE's Low Level Waste Management ES&H Vulnerabilities

#### Additional terms to be used later:

- 7. If a change in the performance of this activity has previously been discussed with the appropriate individuals and the probability is good that a relaxation of the requirements may be received, this question should be answered "yes." If, however, the subject has not yet been broached, this question should be answered "maybe."
- 10. For the purposes of this evaluation,
- 9. This question is attempting to determine if the DOE Order being used has been revised to reflect current requirements and philosophies related to the performance of this activity. Since 1995, the Department has been undergoing a systematic effort to revise DOE Orders.
- . This question is attempting to determine if the system in question is currently being relied on to serve a useful function in the mission of this facility.
- . If the system is not being used to meet the current mission of this facility, will this equipment be needed at a later stage in the mission of this facility? For example, an overhead crane may not currently be needed to move fuel from a spent fuel basin, but when fuel movement commences in two years, the crane will serve a critical function.
- An operational protocol is considered no longer in effect if the system is currently being used to support a mission different from the mission as defined in that operational protocol. For example, if the identified activity involves the surveillance of a coolant pump that protects irradiated fuel, and that coolant pump is now being used for other purposes, this activity would be "being conducted in accordance with an operational protocol no longer in effect."
- This question refers to a case where an activity is performed based on the User's past experience with a material. For example, if radiological surveys of properly stored drums of low level waste occurs weekly simply because it has been our past practice to perform this survey weekly in the days when these drums weren't stored properly, then consideration can be given to changing the frequency of this activity. If no historical reasons exist to perform this activity, then consideration can be given to the cancellation of this task.