

About This Manual

Product ID: [61](#) | Revision ID: [1769](#) | Date published: 21 August 2015 | Date effective: 21 August 2015

URL: <http://www-group.slac.stanford.edu/esh/eshmanual/pdfs/aboutthismanual.pdf>

1 Purpose

The purpose of the [SLAC Environment, Safety, and Health Manual](#) is to provide managers, supervisors, and personnel with the detailed information necessary to implement SLAC's [Environment, Safety and Health Policy](#).

2 Contents

The manual is organized into a series of *chapters*, each comprising a description of the purpose, roles and responsibilities, and standards for the corresponding program and a set of implementing procedures, processes, and requirements.

2.1 Quick Start Summary

Each chapter begins with a one-page *quick start summary* containing the following elements:

1. Who needs to know about these requirements
2. Why (the information is important)
3. What do I need to know
4. When (is the effective date)
5. Where do I find more information

2.2 Chapter

Each chapter contains the following required elements:

1. Purpose (the point of program, and its scope and applicability)
2. Roles and Responsibilities
3. Procedures, Processes, and Requirements (links to implementing documents)
4. Training (who needs training and links to courses)
5. Definitions
6. References (including external requirements and related material)

2.3 Procedure / Requirements

Specific requirements are documented in *exhibits* (procedures, requirements, guidelines, forms, and specifications) listed in the “Procedures, Processes, and Requirements” section and intended for use in the field by managers and workers. Procedures and requirements contain the following elements:

1. Purpose (the point of procedure/requirements, and its scope and applicability)
2. Procedure/requirements
3. Forms (links to associated forms)
4. Recordkeeping
5. References

2.4 Chapter Web Page

Each chapter has an associated web page, with links to the quick start summary, chapter, and exhibits. Chapter web pages contain the following elements:

1. A summary from Section 1 of chapter
2. Quick Start Summary (if any)
3. Full Chapter (the chapter plus exhibits in a single package)
4. Procedures and Requirements
5. Guidelines (if any)
6. Forms and Tools
7. Other Program Documents and Resources (key documents and resources belonging to the program, including web sites and program SharePoint sites)
8. Program Ownership (the department and program manager), plus additional contacts, such as program manager backups, and any related safety officer, committee, or departmental contact page

3 Process

3.1 Development

Chapters are to be developed and revised following

- [About This Manual: ESH Manual Revision Procedure](#) (SLAC-I-740-0A02C-001)

Review and approval records will be accessible.

These documents provide useful guidance; their use is not mandatory:

- [About This Manual: Forms Guideline](#) (SLAC-I-740-0A02T-001)

3.2 Distribution

Manual chapters are published via the web, with an e-mail notification sent by ESH Publishing to a standard distribution list. Hard copies may be printed for convenience but are not to be considered the authoritative version and are not controlled.

4 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [Chapter 1, “General Policy and Responsibilities”](#)

Other SLAC Documents

- [Environment, Safety and Health Policy](#) (SLAC-I-701-A02-001-00)

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ESH Manual Revision Procedure

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URL: <http://www-group.slac.stanford.edu/esh/eshmanual/references/pubsProcedManual.pdf>

1 Purpose

The purpose of this procedure is to ensure the ESH Manual is revised, reviewed, and approved consistently and efficiently. It covers drafting, reviewing, approving, and publishing of ESH Manual chapters and exhibits. It applies to program managers (as owners of the content), authors, reviewers, ESH department heads, the ESH division director, and ESH Publishing.

2 Procedures

All changes to ESH Manual chapters and exhibits must be submitted to ESH Publishing, using the [Publishing: ESH Manual Revision Proposal Form](#).

2.1 Types of Revisions

All types of revisions begin and end the same way, with program managers submitting a proposal and ESH Publishing preparing and distributing the final, approved content. What varies is the level of review. Editorial changes are reviewed simply by ESH Publishing and made; substantive changes are reviewed by stakeholders and then if minor approved by the program manager's department head or if major by the ESH division director (ESHDD), following presentation to the SLAC laboratory director.

Whether a revision is major or minor is based on the potential impacts to SLAC processes or operations: minor changes have minimal impact on personnel, resources, and organizations; major, significant. The determination is made by the program manager's department head and, if major, confirmed by the ESHDD. New chapters are always classified as major revisions.

Immediate changes, whether major or minor, are made using the immediate change process (see Section 2.7, "Making an Immediate Change").

2.2 Schedule

Target times for development, review, approval, and publishing are given below.

2.3 Proposing a Revision

Step	Person	Action	Time Target
1.	Program manager	<ul style="list-style-type: none"> ▪ Identifies need for development or revision of a chapter ▪ Confers with stakeholders on potential changes, performs benchmarking as appropriate <p><i>Note: any person at SLAC may request a change by contacting the program manager.</i></p>	
2.	Program manager	Completes a revision proposal , including recommendation that change is editorial or major, minor, or immediate	1 day
3.	ESH Publishing	Reviews; if complete <ul style="list-style-type: none"> ▪ If editorial, publishes change within three business days ▪ If minor, submits to department head ▪ If major or if classification undetermined, in addition submits to ESHDD after department head has approved If incomplete returns to program manager for revision	1 day
4.	Department head (and ESHDD if major)	Reviews proposal and approves or rejects, notifying ESH Publishing <ul style="list-style-type: none"> ▪ If rejects, ESH Publishing sends to program manager for possible revision ▪ If approves, confirms classification as <i>major</i> or <i>minor</i> 	1 week
5.	Program manager and ESH Publishing	Develop a project plan and schedule, including a document plan listing documents to be developed, revised, or cancelled <p><i>Note: the plan should include consideration of needs for training courses, data management, and web development.</i></p>	3 days
Total time			2 weeks

Proceed to “Drafting a Revision”.

2.4 Drafting a Revision

Step	Person	Action	Time Target
1.	ESH Publishing	Prepares files and materials for the program manager	2 days
2.	Program manager	<ul style="list-style-type: none"> ▪ With assistance from ESH Publishing, follows revision/document plan and schedule and drafts revision (chapter, related procedures, flow charts, forms) ▪ Contacts Contract Management, reviews current codes, performs field verification if necessary ▪ Provides list of stakeholders to ESH Publishing 	1 to 2 weeks
3.	ESH Publishing	<ul style="list-style-type: none"> ▪ Reviews completed draft and works with program manager on any 	3 days

Step	Person	Action	Time Target
		necessary changes	
		<ul style="list-style-type: none"> ▪ When complete, distributes for review 	
Total time			3 weeks

Proceed to “Reviewing a Minor Revision” or “Reviewing a Major Revision”.

2.5 Reviewing a Minor Revision

Step	Person	Action	Time Target
Stakeholder Review			
1.	Stakeholders	Review draft and submit comments	1 week
2.	ESH Publishing	<ul style="list-style-type: none"> ▪ If substantive comments, prepares files and materials for the program manager ▪ If no substantive comments, goes to step 5 	2 days
3.	Program manager	Responds to comments, revising draft as necessary, submits to ESH Publishing	1 week
4.	ESH Publishing	Reviews and works with the program manager to complete	2 days
5.	ESH Publishing	Submits to department head	1 day
Department Head Review			
6.	Department head	Reviews draft, approves, and/or provides comments	1 week
7.	ESH Publishing	<ul style="list-style-type: none"> ▪ If substantive comments, prepares files and materials for the program manager ▪ If no comments, goes to step 10 	1 day
8.	Program manager	Revises draft as necessary, submits to ESH Publishing	2 days
9.	ESH Publishing	Reviews and works with the program manager to complete	2 days
10.	ESH Publishing	Publishes (if requested returns to department head for final review and approval, then publishes) <i>Note: ESH Publishing posts final documents to web and sends e-mail notification to standard distribution list</i>	2 days
Total time			5.5 weeks

Proceed to “Implementing”.

2.6 Reviewing a Major Revision

Step	Person	Action	Time Target
Stakeholder Review			
1.	Stakeholders	Review draft and submit comments	2 weeks
2.	ESH Publishing	<ul style="list-style-type: none"> ▪ If substantive comments, prepares files and materials for the program manager ▪ If no substantive comments, goes to step 5 	2 days
3.	Program manager	Responds to comments, revising draft as necessary, submits to ESH Publishing	2 weeks
4.	ESH Publishing	Reviews and works with the program manager to complete	2 days
5.	ESH Publishing	Submits to ESHDD	1 day
ESHDD Approval			
6.	ESHDD	Reviews draft, provides any comments	1 week
7.	ESH Publishing	<ul style="list-style-type: none"> ▪ If substantive comments, prepares files and materials for the program manager ▪ If no comments, goes to step 10 	1 day
8.	Program manager	Revises draft as necessary, submits to ESH Publishing	2 days
9.	ESH Publishing	Reviews and works with the program manager to complete	2 days
10.	ESHDD	Presents recommendation to laboratory director	1 day
11.	Laboratory directory	Reviews recommendation, provides comments to ESHDD	
12.	ESHDD	<ul style="list-style-type: none"> ▪ If substantive comments, relays to program manager and ESH Publishing ▪ If no comments, approves 	
13.	ESH Publishing	<ul style="list-style-type: none"> ▪ If substantive comments, prepares files and materials for the program manager ▪ If no comments, goes to step 16 	1 day
14.	Program manager	Revises draft as necessary, submits to ESH Publishing	2 days
15.	ESH Publishing	Reviews and works with the program manager to complete	2 days
16.	ESH Publishing	Publishes (if requested returns to department head for final review and approval, then publishes) <i>Note: ESH Publishing posts final documents to web and sends e-mail notification to standard distribution list</i>	1 week
Total time			9 weeks

Proceed to “Implementing”.

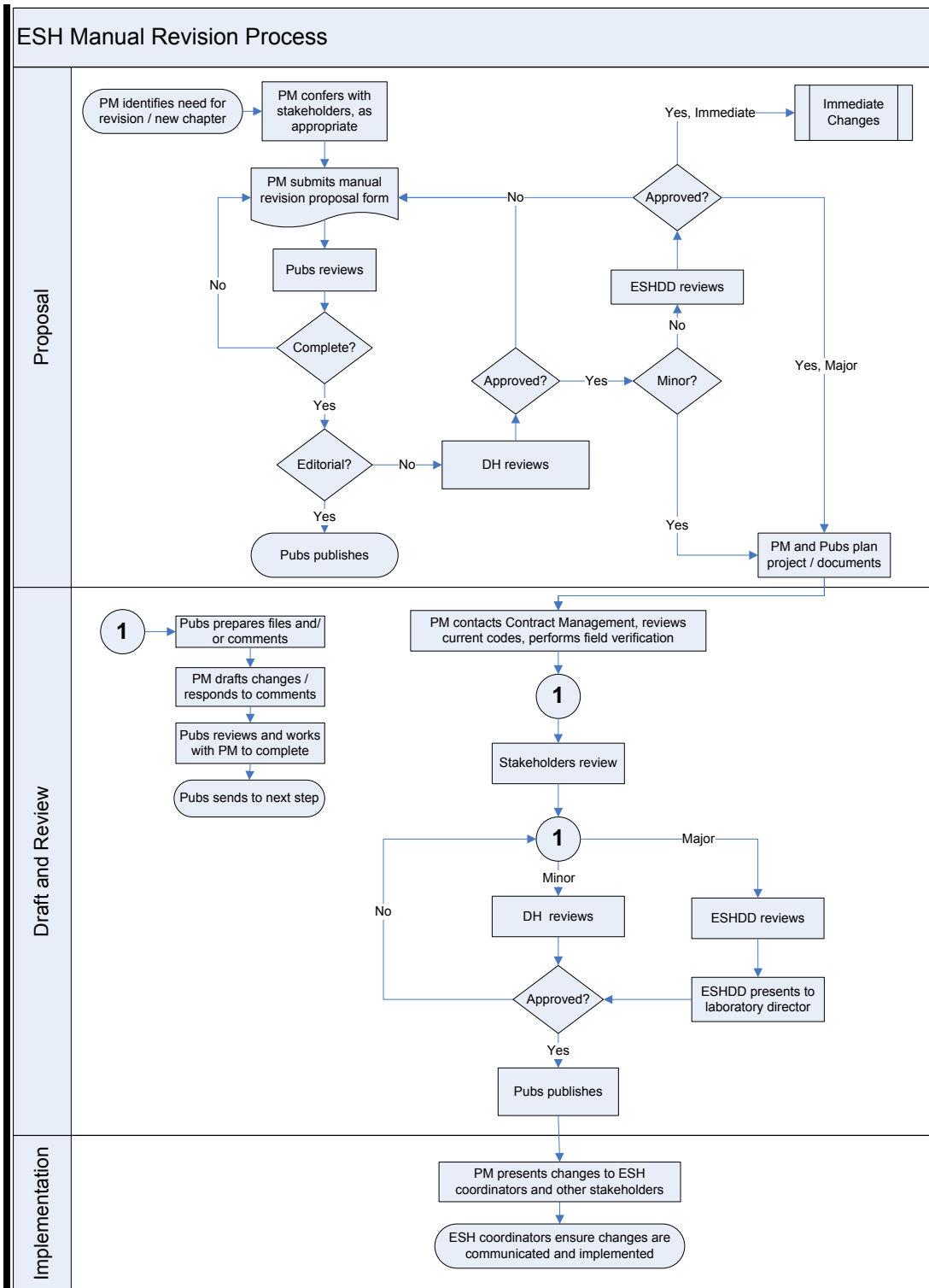


Figure 1 ESH Manual Revision Process

2.7 Making an Immediate Change

Occasionally major or minor changes need to be made immediately to address significant hazards, eliminate low-value requirements, and implement regulatory changes or address process changes. Examples of changes falling into this category include

- Elimination of unnecessary forms / signatures
- Elimination of duplicative or conflicting requirements
- Introduction of a new hazard or a new process

This will only be done when deemed necessary by the ESH division director (ESHDD). Under this process the requester must make a case for why an immediate change is warranted; the ESHDD reviews and approves, and the change is made and communicated. The change takes effect with an appropriate effective date by working with ESH coordinators and stakeholders as needed. This process should take days rather than weeks.

Step	Person	Action
1.	SLAC staff	Contacts the program manager and recommends a change to an ESH Manual chapter
2.	Program manager	After determining the change is needed, sends the following to ESH Publishing and the ESHDD: <ul style="list-style-type: none"> ▪ Description of recommended change, including driver, risk if change is not made, and need for urgency ▪ List of affected documents, systems, and/or training ▪ Information on stakeholder/committee concurrence, if any
3.	ESHDD	Approves/disapproves and notifies ESH Publishing and the program manager
4.	Program manager and ESH Publishing	If approved: <ul style="list-style-type: none"> ▪ Revises affected documents and highlights changes to the reader in an unambiguous manner ▪ Manages the change through to completion with review by ESHDD prior to release of chapter, including negotiated effective date
5.	ESH Publishing	Publishes revised documents and sends out the communication to the distribution list. Submit comments to program manager for resolution
6.	Program manager	<ul style="list-style-type: none"> ▪ Presents changes to ESH coordinators and other stakeholders as soon after publication as practical, covering the basic requirements of the program, changes, and implementation issues ▪ Ensures needed changes are made to systems and/or training and provides implementation assistance as necessary
7.	ESH coordinator	Ensures changes are communicated and implemented within affected departments

ESH Manual Revision Process: Immediate Changes

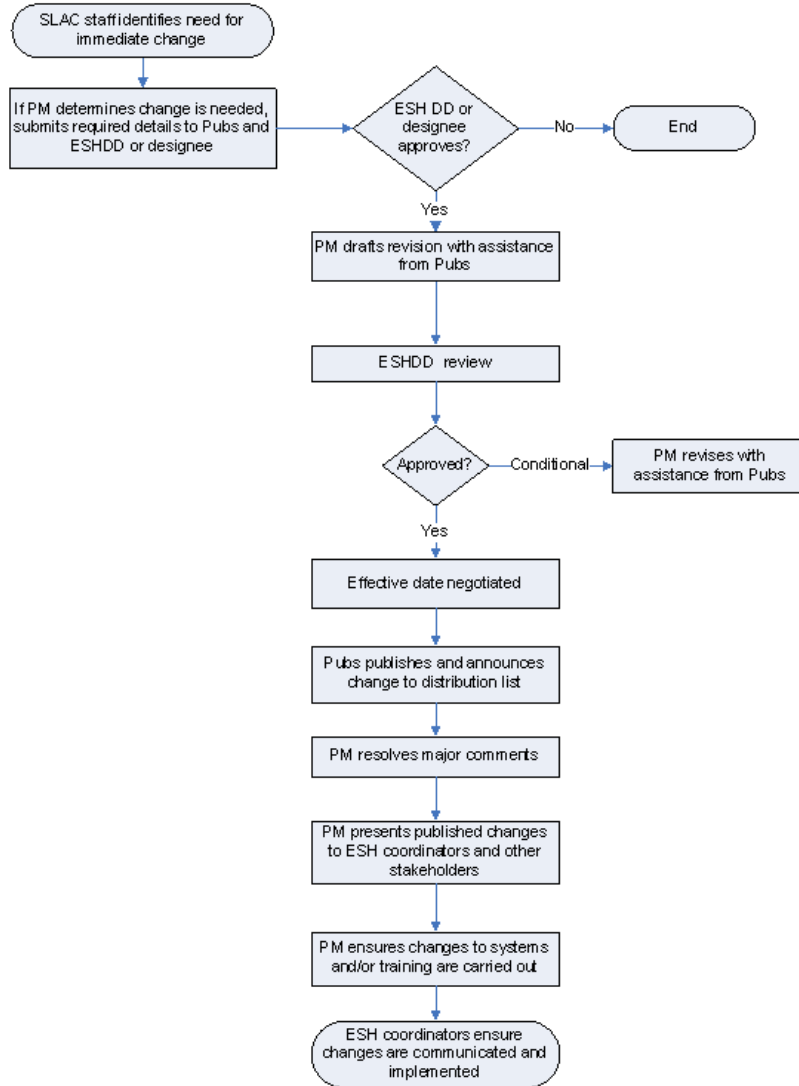


Figure 2 ESH Manual Revision Process: Immediate Changes

2.8 Implementing

Step	Person	Action
1.	Program manager	<ul style="list-style-type: none"> ▪ Presents changes to ESH coordinators and other stakeholders as soon after publication as practical, addressing new requirements, forms, and processes ▪ Ensures needed changes are made to systems and/or training and provides implementation assistance as necessary
2.	ESH coordinator	Ensures changes are communicated and implemented within affected departments

2.9 Periodic Review

Each chapter will be reviewed for currency at least every three years; published chapters will be annotated with the date last reviewed.

2.10 Cancelling a Chapter

Requirements are usually cancelled as part of another substantive revision, for example, removing a step from a procedure. In this case one of the revision procedures above is used. If cancelling an entire chapter, the following procedure is used.

Step	Person	Action	Time Target
1.	Program manager and/or ESH Publishing	<ul style="list-style-type: none"> ▪ Identifies potentially unnecessary chapter (unnecessary because requirements do not apply site-wide, are covered by other programs/documents, or no longer apply) ▪ Confers with stakeholders on cancellation, performs benchmarking as appropriate <p><i>Note: any person at SLAC may request a change by contacting the program manager.</i></p>	
2.	Program manager	Completes a revision proposal , indicating change is a cancellation	1 day
3.	ESH Publishing	<ul style="list-style-type: none"> ▪ Reviews proposal ▪ Develops cancellation plan, covering disposition of any remaining content ▪ Reviews cancellation plan with program manager ▪ Submits to department head and ESHDD 	1 week
4.	Department head and ESHDD	Review proposal and approve or reject, notifying ESH Publishing	1 week
Total time			2.5 weeks

3 Forms

The following forms are required by this procedure:

- [Publishing: ESH Manual Revision Proposal Form](#)

4 Recordkeeping

The following recordkeeping requirements apply for this procedure:

- ESH Publishing will maintain controlled versions of all documents and a record of comments, responses, and approvals.

5 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [About This Manual](#)
 - [About This Manual: Forms Guideline](#) (SLAC-I-740-0A02T-001)

Other SLAC Documents

- [Contract Management](#)
- [SLAC Document Management Governance Plan](#) (SLAC-I-701-I04-001-00)
- [Controlled Document Management Program Plan](#) (SLAC-I-050-001-004-00)
- [Controlled Document Management System](#)

[About This Manual](#)

Forms Guideline

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URL: <http://www-group.slac.stanford.edu/esh/eshmanual/references/pubsGuideForm.pdf>

1 Purpose

The purpose of these guidelines is to help create more effective forms. They cover selecting the type of form and technology to use and some key design considerations. They do not cover the visual design of forms or how to create forms in specific applications. They apply to program managers and form developers.

2 Guidelines

2.1 Is a Form Needed?

The first question to ask in designing a form is whether the form is needed at all. Forms are meant to capture information related to a process in a way that makes it easier to use. If you really do not need the captured information you probably do not need the form. A simple test for whether you need the information is whether you have any plans to use it. If not, a checklist, procedure, or guideline might be more appropriate.

2.2 Choosing the Type of Form and Technology

Forms ensure people provide all the required information (required fields), in the right format (dates, numbers, names) and sequence, with acceptable values. The type of form and technology to use depends on how strictly this information needs to be controlled, which in turn depends on how the information is to be used. Information that exists only on the completed form does not need to be strictly controlled; information that is meant to be taken from the form and entered into a larger system for other uses needs to be more controlled and structured so it is easier to combine.

Forms can be thought of as coming in three types: those not connected to any other system, those that are semi-connected, and those that are fully connected. How the form should be set up and what technology to use depends on the type. Here are examples:

1. **Unconnected.** A form meant to be completed as part of performing some operation, then simply stored or discarded afterwards. Even if stored, the fact that the information does not go anywhere else means it is not connected to any other system. This means the information does not need to be strictly controlled and structured. For an unconnected form like this a simple paper or easy-to-edit electronic version (like a Word or Acrobat file) will do.

2. **Semi-connected.** A semi-connected form is one meant to be completed independently of a larger system but at some point reconnected, either automatically or manually. Think of punch cards, fill-in-the-bubble tests, bar-coded packing slips, downloadable forms. Generally the form has to be semi-connected because it is not convenient to keep it connected while someone is using it (because the person has to complete it while in the field or using a different computer or machine). The key to using semi-connected forms is to make sure they can be easily reconnected to the larger system. This means making sure the information is strictly controlled and structured. For a form like this a paper or electronic version that is highly structured but can exist outside a system (like a bar-coded paper, Word, Acrobat, or InfoPath [or similar XML] form) will do.
3. **Connected.** A form that is always directly connected to a larger system in which the information is to be used. This can be as simple as a line in a paper ledger or as complex as an order in an online retailing system. Because the form is directly connected to a system, the information is usually highly controlled and structured (it has to be or the system will not allow it). The downside of a connected form is the cost of setting up the system and the need to be connected to it; the upside is the ability to consolidate and track information from many completed forms easily and quickly. Connected forms are usually electronic and involve a server/database and client/form, usually web-based. If you want a form to capture information that is related to other institutional information, you should consider using an institutional system (at SLAC Oracle). A good option for simple systems is SharePoint: lists with form interfaces, custom permissions, workflows, and basic reporting are easy to set up.

2.2.1 Paper versus Electronic

For the most part, the connectedness of the form matters more than the medium (paper, electronic, whatever) when choosing the form technology to use. But if people are to use the form (either to complete it or to refer to it) in the field, you should assume they will need a paper copy. That means making sure the forms and related reports have easy-to-print versions. This does not mean paper should be the only version: producing reports in different formats is in fact easier to do with a highly structured electronic form, because the information can be easily transformed into a variety of formats. Likewise forms that are related to more complex processes are better suited to being electronic, because this simplifies processing and tracking.

2.2.2 Standard versus Non-standard

Whether to require standard forms or allow non-standard, customized forms depends again on what will be done with the captured information. If the information is to be used as part of a larger system, a standard form works better. If the information is used by itself, a custom form has the advantage of being possibly easier to use and more familiar to various users. Forms should be assumed to be standard: if a non-standard form is allowed, say for an inspection checklist, that should be stated explicitly. (Note with sophisticated forms the appearance can be customized for different users and the information still used by larger systems.)

2.3 Structuring and Validating Information

To make it easier both to complete a form and use the results, it helps to structure and validate the information. Structuring means setting up the form so that information of different types (say text, dates, numbers) and relations (is the information about the person completing the form, an activity, an object) are separate. It helps to have a model of the data and/or process the form is meant to support: what kinds of information are needed, at what level of detail, from what sources. Structure is most important for semi-

and connected forms, but even for unconnected forms, with no associated processing, a well structured form helps people complete and review it.

Validating means checking that required fields have been filled out and with the right kind of information. Simple validation checks that required fields are filled out and the right data types used (for example, dates in date fields) and possibly ranges; more sophisticated validation calculates values and even compares entries to various tests.

2.3.1 Lists

A simple pre-emptive way to validate information is provide a list of acceptable values for a given field. Whether a pull down menu or checkbox/radio buttons, these are all controlled vocabularies. The advantage of these is consistent information that can be compared and consolidated across a set of completed forms and even between different forms and systems. The disadvantage is the effort creating the lists and the potential to frustrate users who do not find the values they expect.

2.4 Recordkeeping

When creating a form, consider the associated recordkeeping requirements and make these clear, either on the form itself or in an associated procedure. There should be no forms that lack clear instructions on whether the form is to be kept, how, by whom, and for how long. Note this is true of even electronic forms: archiving requirements can be an important part of system design. Some forms need to be kept only for the duration of the operation they document. Others need to be kept much longer. Some forms fall under Department of Energy (DOE) and other regulatory recordkeeping regimes. Check the DOE directives and federal, state, and local laws and regulations that apply to your program.

2.4.1 Confidential Information

Minimize confidential information, especially personally identifiable information (PII).

2.5 Forms and Processes

Every form is associated with at least two processes: one for completing the form itself and a larger one for which the form is capturing information. For example, take an expense report: there is a process for filling out and submitting the report, which is part of a larger process of being reimbursed for expenses.

When creating a form, think about the larger process the form is intended to support: what kind of information is needed, why, who needs to be involved, in what sequence. Developing a form should always start with mapping out and documenting the process it is meant to support. This usually means a procedure. This is particularly important for forms that relate to processes that involve several people. A clear picture of the larger process makes filling out the form, and understanding why it is needed, easier.

Forms that support more complex processes should almost always be the connected (or at least semi-connected) kind. Because the form is directly connected to a system it is easier to track the status of the process and use the resulting information.

Besides easier tracking of status and use of information, using a connected form may make it easier to consolidate several related processes. To realize this benefit, it is especially important to spend the time to

identify fully the larger processes and all its subprocesses, so one system can be set up to handle the whole process.

3 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [About This Manual](#)