

The Design of *Maintainable* Process Documentation

By: Larry Randall

Many organizations spend thousands of hours each year “maintaining” Policy, Procedure, and Work Instruction (collectively, “process”) documents that are interwoven. Many more simply do “business as usual” without updates – or, perhaps worse yet, update only the “impacted” document without also updating the documents above and/or below. Those are now “out of sync” and *contradictory* to the document that is “right”.

Properly *designed* documentation a) is always accurate, b) requires little time to maintain, c) requires fewer resources to maintain, and d) is not costly to maintain. This article discusses the key requirements for process documentation design.

The Concept of Compartmentalization

Each and every process document *must* have its scope limited to the Roles and Responsibilities (R&R) of that function, and include only the “detailed pointers” to any “external” (to this process area) handoffs and inputs. This allows an “internal” change in each process area to impact *only* the document that describes that process area. Only changes to interactions between process areas ever will require that more than one document be modified.

Work Instructions

The interactions between functions within a "task group" (e.g., puller to/from packer to/from shipper) are Work Instruction Level interactions. These are of importance to ensure that the Task is done consistently. Exceptions are limited to the Task Group.

Changes to Work Instructions require approval from the Department Manager, and the Functional Head of the activity being described. It is their responsibility to ensure that the changes do not extend beyond areas under their direct control. In other words, no change in interaction with another Department may be made without a corresponding (and usually driving) change to the Department Procedure.

A Work Instruction is the lowest level document. It may not conflict with any higher level document.

Department Procedures

The Interactions between Tasks are Department Procedure Level interactions, and must be covered in the Department Procedure for this Function -- including all possible Exceptions and the interactions with other Department functions. Departmental Roles and Responsibilities *must* be assigned in this set of documents (i.e., one Department Procedure for each Department Function). The R&R authority is derived from the Corporate Procedure.

Changes to Department Procedures require approval by the Vice President over that department, and by all impacted department heads. Line supervisors and key workers *should* have input to the proposed changes before their adoption.

A Department Procedure is superior to all Work Instruction documents *within its scope of responsibility*. It is inferior to, and may not conflict with, a Corporate Procedure (and/or Division Procedure).

A Department Procedure must define all Tasks, their order of execution, exceptions, and interactions. It must not include any portion of the Work Instruction, or of the Corporate Procedure. It may, and should, *reference* those – but only as necessary for clarity – and *never* to the detail level (e.g., not to the level of “See step 8a in ‘document B’”).

Division Procedures

Large corporations, and some smaller corporations with greatly differing business areas, may require a set of Divisional Procedures. If so, only the Procedures necessary to that operation should be created, with care not to conflict with Corporate Procedure or Department Procedure. In essence, the Division Procedure(s) must *tailor* a means of compliance for this Division and/or supply a Procedure or set of Procedures for operations that are unique to this Division.

A Division Procedure is superior to all Department Procedures and Work Instruction documents *within its scope of responsibility*. It is inferior to, and may not conflict with, a Corporate Procedure.

A Division Procedure must define all Tasks, their order of execution, exceptions, and interactions. It must not include any portion of the Department Procedure, of a Work Instruction, or of the Corporate Procedure. It may, and should, *reference* those – but only as necessary for clarity – and *never* to the detail level (e.g., not to the level of “See step 8a in ‘document B’”).

Corporate Procedures

The interactions between Corporate Groups (usually each lead by a corporate VP) are covered in the Corporate Procedures. These derive Roles and Responsibilities from Corporate Policy, assign functional Roles and Responsibilities to Corporate Officers, and provide authority to Vice Presidents to delegate and assign lower level responsibilities and authority for delegation to Department Heads.

Corporate Procedures also expand to operational level the statements of Corporate Policy. Thus, the “Gifts that may influence decisions may not be accepted.” statement in Corporate Policy must be clarified in Corporate Procedure with dollar limits and guidance for obtaining corporate legal opinion and/or approval in unusual cases.

Changes to Corporate Procedure require approval by the C-Level, and may require action by the Board of Directors.

The Corporate Procedure(s) is/are superior to all Department Procedures. Corporate Procedure may not conflict with Corporate Policy.

Corporate Procedures must adequately describe Roles, Responsibilities, and interactions between the various C-Levels, Vice Presidents, and departments. It must not “descend” to areas covered in Department Procedures.

Corporate Policy

The Corporate Policy document should be *concise* and *easily understood*. This is the “statement of ethics and goals” for all employees; therefore, it must be both short and clearly written.

Corporate Policy must be approved by the Board of Directors, and may be subject to Shareholder input and Shareholder voting.

Corporate Policy is superior to all Procedures.

Summary

A *designed* set of process documents allows one or two people to maintain the “stack” for a relatively large company. The set of documents always reflects the current guidance for all employees. This allows the business to operate as a single unified entity.

When process documents are not compartmentalized, conflicts are inevitable – with the usual result that *a bad decision will be taken by a good employee* who is relying *in good faith* upon the “latest published” documentation – but cannot be aware that the document that she/he referenced is out of sync with the newly revised “main document”. If the conflict between documents involves a regulatory or customs issue, the cost of the conflicting documents may rather substantially exceed the overhead costs of document “untangling” and maintenance.

The operational issues created by the inevitable conflicts between “out of sync” documents are both costly and potentially legally risky. The resources required for maintenance of “tangled” process documents are, quite frankly, *mostly wasted*.

It is never too late to begin to unravel the “tangled ball of string”.

Bio

Mr. Randall has worldwide experience in program management, project management, technical marketing, Root Cause Analysis, Gap Analysis, business and technical process improvement, documentation management, training management, training needs analysis, curriculum design, development and delivery of training, and evaluation of effectiveness of training. He has created and delivered training and marketing presentations in at least 39 countries on 5 continents. Audiences include all levels from the chief executive of the country to new soldiers, sailors, and airmen.

His field experience includes international trips to identify and resolve issues for several military organizations and commercial users, and project manager roles in such places as Egypt, Ecuador, India, Nigeria, and Peru. As the Senior Field Engineer and one of two Product Concept Engineers for a top three cryptographic firm, he designed an HF modem that fit into fatigue pockets, and improved performance of analog scramblers on HF by leveling the output to drive the Single Sideband (SSB) radio to full rated power.

Mr. Randall received an invitation to join MENSA, a commercial FCC radio license, and an FCC Amateur Radio license while still in high school. Rounding out his “main” varied interests are photography, video production (he was elected to Active Grade in the Society of Motion Picture and Television Engineers for pioneering work in Electronic News Gathering), woodworking, and singing. He and his wife make their home in Richardson, Texas.