

Developing Plant Documentation

by
Ron C Johnson

RCIC

1

What is Plant Documentation?

- Ranges from single sheet procedures to multi-binder manuals
- May be generic for conceptual understanding or plant specific
- Multiple document types need to be integrated – easy to update all related and overlapping content
- Historically hardcopy but increasingly on-line
- Living Documents – continuously upgraded, maintained

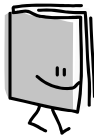


RCIC

2

What is Plant Documentation?

- Includes
 - O&M Manuals
 - Information Manuals
 - Operations Manuals
 - Standard Operating Procedures
 - Maintenance Procedures
 - Safety Manual/Procedures
 - Employee Manuals
 - Policy Manuals
 - Contingency Response Plans
 - Emergency Response Plans
 - Training Modules



RCIC

3

What is driving the need for documentation?

- Aging workforce approaching retirement age → loss of tacit knowledge and experience
- Mobile workforce → average age and experience dropping
- Economic uncertainties → supporting aging infrastructure



4

What is driving... (cont'd)

- Personnel on accommodations → Use 'em or lose 'em
- Variability in procedures → Lack of standardization
- Increasingly stringent standards → Lack of compliance



RCIC

Solutions

- Capture knowledge
- Standardize procedures/policies
 - Safety
 - Operation
 - Maintenance
 - Administrative
- Train personnel



RCIC

What do you need?

- Personnel
- Plans (Document and Information)
- Tools and Facilities
- Content
- Budget
- Time
- Commitment



RCIC

7

Personnel Resources

- For a project of any significant size you need a TEAM
 - Project Manager
 - Project Lead
 - Subject Matter Experts (SME)
 - Operations
 - Maintenance
 - Engineering
 - Supervisory
 - Management
 - Technical Communicator
 - Training Coordinator
 - Safety Coordinator
 - Clerical
 - IT Support



RCIC

8

The Document Plan

- Details your decisions, goals, limits, etc
- Includes:
 - List and describe the required documents
 - Who will use the documents?
 - What are the deliverables?
 - What resources are available?
 - Defines styles and formats
 - Describes how the process should work



RCIC

9

Document Plan (cont'd)

- What tools will be used (hardware, software, etc)
- Schedule (phases, benchmarks, completion)
- Identifies and defines roles of internal and external personnel
- Defines limitations and procedures if changes are required
- Defines contractual arrangements with contractors and consultants



RCIC

10

The Information Plan

- Defines:
 - What kind of a document it is
 - What will go into the document
 - The actual content
 - Types and amount of graphics
 - Use of tables
 - The depth and focus of the document
 - How the document relates to other documents
 - Level and style of the writing



RCIC

11

Tools and Facilities

- Workspace
 - Interviews
 - Files/records
- Office equipment/computers
 - Access to storage
 - Backup data
 - A lot of printing
- Software
 - MSWord?
 - Desktop publishing?
 - Content management

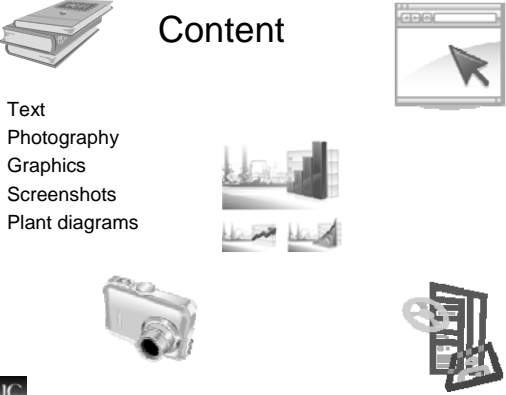


RCIC

12

Content

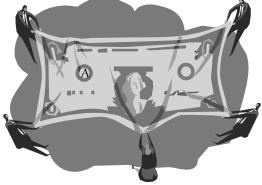
- Text
- Photography
- Graphics
- Screenshots
- Plant diagrams



RCIC 13

Budget


- Internal personnel costs
- External consulting and services
- Tools and facilities
- Production costs



RCIC 14

Time

- Free up personnel
- Project span



RCIC 15


Documentation Processes

■ Assess needs	■ SME verification
■ Estimate resources	■ Phase 1 production
■ Create document plan	■ Draft release
■ Create information plan	■ Usability testing
■ Gather resources	■ Validation
■ Gather data	■ Final edit
■ Create content	■ Production
■ Review/edit content	■ Release
	■ Maintain

RCIC 16

Data Gathering


- Existing Documentation
- SMEs
- Outside Sources



RCIC 17

A successful documentation project depends on...

- Careful needs assessment
- Thorough project planning
- Realistic resource allocation
- Appropriate document design
- Flexibility to adapt during the process
- Broad organizational commitment / support / participation
- Innovative use of personnel



RCIC 18

Costs

- Less than the alternative
- More than typically expected
- Go beyond direct budget costs
 - Commitment
 - Allocation of personnel
 - Go the distance
 - Maintain the end product



19

Benefits

- Enhance personnel safety
- Protect infrastructure investment
- Maintain commitments to customers/stakeholders
- Meet compliance requirements
- Capture tacit knowledge before it is lost
- Provide a foundation for training programs
- Standardize processes and procedures
- Tail wags the dog: improve your processes, procedures, systems
- Makes good use of personnel on accommodations



20

Thank you

Developing Plant Documentation

by

Ron C. Johnson A.Sc.T.

Ron C Johnson Communications

Documents that Deliver!
ron@roncjohnson.net
Office: 306.665-1610
Mobile: 306.229.9842



21