

Summary of Configuration Management Information Summer 2008 Survey Results

Results from the summer 2008 Survey were received from:

- Hanford
- CH2M Hill Hanford Group, Inc.
- Fluor Hanford
- Sandia National Laboratories
- Los Alamos National Laboratory
- Waste Isolation Pilot Plant (WIPP) - Washington TRU Solutions, LLC
- Savannah River Site
- Savannah River Nuclear Solutions (SRNS, the new M&O)
- Salt Waste Processing Facility (SWPF)
- Pantex (B&W Pantex)
- Y-12

Detailed input from each site is provided in the appendix to this report. The following table summarizes the results.

Question ¹	CH2M Hill (Hanford Tank Farms) - Att. 1	Hanford: Fluor Hanford (PHMC) - Att. 2	Sandia National Laboratories - Att. 3	LANL - Att. 4	WIPP - Att. 5	SRS: SRNS - Att. 6	SRS: SWPF - Att. 7	Pantex - Att. 8	Y-12 - Att. 9
1. Utilize computers for CM?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
2. Electronic Signature Process?	Yes	No	No	~yes	Yes	Yes	No	No	No
3. CM software applications provided?	Yes	Yes	Yes	Yes	Yes	Yes	~yes	Yes	Yes
4. 3-D Model applications?	No	Yes	Yes	Yes	Yes	Yes	Yes	No	~yes
5. Formal screening design changes between PDSA and DSA?	Yes	Yes	N/A	No	N/A	Yes	Yes	No	Yes
6. Formal data system to control design assumptions?	No	No	No	Yes	No	Yes	No	No	~yes
7. Control of documents (as well as drawings)?	Yes	Yes	Yes	~yes	Yes	Yes	Yes	Yes	Yes
8. Graded approach for drawing control (as-building)	Yes	No	--	No	No	Yes	No	Yes	Yes
9. Possible best practice?	No	No	No	Yes	Yes	Yes	No	Yes	No

At the spring meeting of the Configuration management (CM) working group, this survey was suggested by several members who are considering different

¹ If answer is “yes”, see details for follow on question responses and/or details. “~yes” means implemented in a few areas only.

software systems. It is meant to be a resource for sites/companies considering changes and not, in itself, a recommendation for certain software systems or approaches.

Several sites are in the process of evaluating or considering changing software systems, particularly those which had multiple systems and/or home-grown (not commercially available) systems. These site representatives were interested in what other sites were using and the opportunity to contact other site's users to get a user evaluation (versus what the vendor might represent. As this survey was being developed, there was also interest in electronic signatures and in 3-D applications. A number of sites are in early stage of considering electronic signatures but have not fully implemented the process. Particularly for sites challenged by distances between facilities, electronic signatures would be a benefit. Similarly, those sites that have used and incorporated 3-D modeling into their designs have identified positive benefits.

Attachment 1
CH2M Hill Hanford Group (Hanford Tank Farm) Input

Site Information:

Site [Hanford](#)
Company/Division: [CH2M HILL Hanford Group, Inc.](#)
Name of Person filling out questionnaire (or contact point): [Gary Faust](#)
Phone # (best to reach at if question): [\(509\) 373-0337](#)
Email: [Gary_L_Faust @ rl.gov](mailto:Gary_L_Faust@rl.gov)

General Questions

Do you utilize computers to maintain CM? If not, describe your process (es).

Yes

Electronic Signature Process

Does your site/company use an electronic signature process for approvals?

No

CM Software Applications

Please fill out the table below, listing the CM software applications that your company/site uses:

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
Hanford Document Control System (HDCS)	Track, and status, engineering technical documents	Hanford Site	Home Grown	Fluor Hanford
Integrated Data Management System (IDMS)	Electronic storage of engineering documents	Hanford Site	Modified COTS	Fluor Hanford

What CM application do you use to manage the following information types?

Types of Information Under CM	Name of CM Application	POC (name/phone)
System Design Descriptions (SDDs)	IDMS	Gary Faust (509) 373-0337
Design – Drawings	HDCS	
Design – Technical Documents	HDCS	
Design – Changes	HDCS	
Specifications	HDCS	
Vendor Information	IDMS	
Material/Parts Lists	IDMS	
Training manuals	IDMS	
Training Lesson Plans	IDMS	
Work Planning Package	CHAMPS	
Technical (ops & mtn) Procedures	IDMS	
Administrative Procedures	IDMS	
Limits & Setpoints	HDCS	
S/RID	IDMS	
Software input or coding (non-COTS)	IDMS	

Are there issues or limitations with the application(s) you are presently using?

No

Are you considering different applications? If so, list those applications.

No

3D Model Applications

Does your site/company use 3-D CAD software in design? (*If no, skip to next major category of questions*). *No*

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

An Unreviewed Safety Question (USQ) evaluation is performed on all Field Modification and Temporary Modification Engineering Change Notices (ECN).

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

Design assumptions are documented as part of the design calculations.

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control?

List 1 – Engineering Design Baseline Documents changed via an ECN

<i>ACCEPTANCE TEST PROCEDURE</i>	<i>OPERATIONAL READINESS REVIEW</i>
<i>ACCEPTANCE TEST REPORT</i>	<i>OPERATIONAL TEST PROCEDURE</i>
<i>AUDITABLE SAFETY ASSESSMENT</i>	<i>OPERATIONAL TEST REPORT</i>
<i>AUDITABLE SAFETY ANALYSIS REPORT</i>	<i>PRE-OPERATIONAL TEST PROCEDURES</i>
<i>AUTHORIZATION AGREEMENT</i>	<i>PRE-OPERATIONAL TEST REPORT</i>
<i>CALCULATIONS</i>	<i>PROCESS CONTROL PLAN</i>
<i>CALCULATION NOTES</i>	<i>READINESS ASSESSMENT</i>
<i>CRITICALITY SAFETY EVALUATION REPORT</i>	<i>READINESS REVIEW</i>
<i>DESIGN ANALYSIS</i>	<i>SAFETY ANALYSIS REPORT</i>
<i>DESIGN REQUIREMENTS</i>	<i>SAFETY BASIS CRITERIA DOCUMENT</i>
<i>DETAILED DESIGN REPORT</i>	<i>SAFETY MANAGEMENT PROGRAMS</i>
<i>DRAWINGS</i>	<i>SEISMIC ANALYSIS</i>
<i>ENVIRONMENTAL - PERMIT DOCUMENTS</i>	<i>SETPOINT CONTROL DOCUMENT</i>
<i>FINAL SAFETY ANALYSIS REPORT</i>	<i>SOFTWARE REQUIREMENTS SPECIFICATION</i>
<i>FIRE HAZARDS ANALYSIS ASSESSMENT</i>	<i>SOFTWARE VALIDATION AND VERIFICATION</i>
<i>FUNCTIONAL DESIGN CRITERIA</i>	<i>SPECIFICATION, CONSTRUCTION</i>
<i>FUNCTIONAL REQUIREMENTS</i>	<i>SPECIFICATION, DESIGN</i>
<i>FUNCTIONS AND REQUIREMENTS DOCS (TPA)</i>	<i>SPECIFICATION, PROCUREMENT</i>
<i>HAZARDS ANALYSIS</i>	<i>STANDARD ELECTRONIC FORMAT</i>
<i>HAZARD BASELINE DOCUMENT</i>	<i>SYSTEM DESIGN DESCRIPTION</i>
<i>HAZARD CATEGORIZATION REPORT</i>	<i>TANK WASTE RETRIEVAL WORK PLAN (TPA)</i>
<i>INTERFACE CONTROL DOCUMENTS</i>	<i>TECHNICAL DATA PACKAGE</i>
<i>OPERABILITY PROCEDURE/REPORT</i>	<i>TECHNICAL SAFETY REQUIREMENTS</i>
<i>OPERATING SPECIFICATION DOCUMENT</i>	<i>WASTE ACCEPTANCE CRITERIA</i>
<i>OPERATION AND MAINTENANCE MANUAL</i>	

List 2 - Safety Basis Supporting Documents changed via an ECN

Document Title
<i>Tank Farm Fire Hazards Analysis</i>
<i>Effects of Globally Waste-Disturbing Activities on Gas Generation, Retention, and Release in Hanford Waste Tanks</i>
<i>Steady-State Flammable Gas Release Rate Calculation and Lower Flammability Level Evaluation for Hanford Tank Waste</i>
<i>Hanford Waste Tank Bump Accident and Consequence Analysis</i>
<i>Data Report for Catch Tank Vapor Sampling</i>
<i>Criticality Safety Evaluation of Hanford Tank Farms Facility</i>
<i>Lower Flammability Limit Calculations for Active Catch Tanks, Inactive Miscellaneous Underground Storage Tanks, Double-Shell Tank Annuli, and Double-Contained Receiver Tanks in Tank Farms at the Hanford Site</i>
<i>Subsystem and Component Level Safety Equipment List for Tank Farms Safety Systems</i>
<i>Offsite Radiological Consequence Calculation for the Bounding Mixing of Incompatible Materials Accident</i>
<i>Methodology and Calculations for the Assignment of Waste for the Large Underground Waste Storage Tanks at Hanford Site</i>
<i>Flammable Gas Release Computational Methodology and Results for Facilities, Vault Tanks, Catch Tanks, DCRTS, and IMUSTs at the Hanford Site</i>
<i>Assessment of Aircraft Crash Frequency for the Hanford Site 200 Area Tank Farms</i>
<i>Technical Basis for the Nuclear Criticality Representative Accident and Associated Represented Hazardous Conditions</i>
<i>Offsite Radiological Consequence Analysis for the Bounding Tank Failure Due to Excessive Loads Accident</i>
<i>Technical Basis for the Tank Failure Due to Excessive Loads Representative Accident and Associated Represented Hazardous Conditions</i>
<i>Mixing of Incompatible Materials in Waste Tanks Technical Basis Document</i>
<i>Offsite Radiological Consequence Analysis for the Bounding Aircraft Crash Accident</i>
<i>Flammable Gas Diffusion from Waste Transfer Associated Structures</i>
<i>Technical Basis for the Release from Aboveground Tank Failure Representative Accident and Associated Represented Hazardous Condition</i>
<i>Analysis of Vehicle Fuel Release Resulting in Waste Tank Fire</i>
<i>Tank Farm Facility Hazard Categorization</i>

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

For non-nuclear facilities (example: office buildings)

Project designated

For nuclear facilities

The following criteria are used to select drawings required to be as-built, prior to release. Drawing sheets are to be “As-Built” if they depict structures, systems, or components (SSCs) that:

- *Are important to safety*
- *Are used to establish or verify safe operating condition*

- *Require routine maintenance to preserve an SSC in a condition so that it can be relied upon*
- *Are installed in portions of a facility with restricted access or are buried/embedded.*

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup member?

None at this time

Attachment 2

Fluor Hanford (Project Hanford Management Contract or PHMC) Input

Site Information:

Site [Hanford](#)

Company/Division: [Fluor Hanford](#)

Name of Person filling out questionnaire (or contact point): [R S Spencer](#)

Phone # (best to reach at if question): [509-376-4980](#)

Email: robert_s_scott_spencer@rl.gov

General Questions

Do you utilize computers to maintain CM? If not, describe your process(es).

Yes.

Do you use electronic and manual systems to maintain CM? If so, describe your process (es).

Yes. We keep databases of our systems, design authorities, documents, and records. System configuration baseline is identified in an electronic document and records system. CAD datasets are maintained in a controlled dataset checkout system.

Change control (for documents and facility modifications) is performed manually.

Electronic Signature Process

Does your site/company use an electronic signature process for approvals? (If no, skip to the next major category of questions)

Electronic signature is not used for technical document approval at this time. A process has been implemented for external client correspondence approval however.

Is professional engineering (PE) stamping required?

Only when required by the state on certain environmental technical documents.

How do you address PE stamps?

A manual stamp is provided by engineers with a current Washington State PE stamp when required by Washington State.

When you implemented electronic signature, did you phase in implementation (by group or type of document) or did you convert all at the same time?

Yes, and implementation is progressing.

What types of training or orientation did you do?

Training was provided for the electronic approval of external correspondence by the IT organization.

Do you still allow alternate signature processes? If so, how is this working for you?

Technical documentation approval is still performed using the manual method. The external client correspondence approval process must be performed electronically.

How do you maintain authorized Signature List?

Authorization signatures for Design Authorities/System Engineers are identified in the Systems Database by associating the primary and backup DAs/SEs with their assigned systems. The Systems Database is linked to the Hanford Document System (HDCS)

which keys documents to individual SSCS to create an SSC configuration baseline list. The link between the Systems Database and HDCS identifies who has signature authority for SSCs.

Is your signature process part of a larger Electronic routing process (i.e., Work Flow)?
Only the electronic approval of external. Everything else is still manual.

CM Software Applications

Please fill out the table below, listing the CM software applications that your company/site uses:

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
HDCS	Engineering Documents Database	Site Wide	Home Grown	Oracle
IDMS	Document and Record Management	Site Wide	COTS	Open Text LiveLink
Systems Database	CM SSC Management	30	Home Grown	Filemaker
EDMS	CAD Dataset Management	100	COTS	Motiva
JCS	Work Control	500	Home Grown	Hanford

What CM application do you use to manage the following information types?

Types of Information Under CM	Name of CM Application	POC (name/phone)
System Design Descriptions (SDDs)	Hanford Document Control System (HDCS)	Pam Clark/ 376-5555
Design – Drawings	Hanford Document Control System (HDCS)	Pam Clark/ 376-5555
Design – Technical Documents	Hanford Document Control System (HDCS)	Pam Clark/ 376-5555
Design – Changes	Hanford Document Control System (HDCS)	Pam Clark/ 376-5555
Specifications	Hanford Document Control System (HDCS)	Pam Clark/ 376-5555
Vendor Information	Hanford Document Control System (HDCS)	Pam Clark/ 376-5555
Material/Parts Lists	PASSPORT	Rich Waggoner/ 373-9805
Training Lesson Plans	Integrated Training Electronic Matrix (ITEM)	Dawna Juette/372-2407
Work Planning Package	Job Control System (JCS)	Jim Hamilton/372-2433
Administrative Procedures	PHMS Docs Online	Melodie Witherspoon/372-2472

Are there issues or limitations with the application(s) you are presently using?
Applications are not well integrated, although some progress has been made in this area. Often times, applications are purchased or developed with single goals in mind without thought for integration.

Are you considering different applications? If so, list those applications.
HDCS, EDMS, Systems Database, etc. are being reviewed for upgrades and tighter integration with other systems.

3D Model Applications

Does your site/company use 3-D CAD software in design?

Yes, Autodesk Inventor and Revit.

Do you manage the 3-D CAD output as CM/Design media or as reference information?

3D CAD output is currently managed as reference media/information.

Do you manage the Design Media/Reference Information as record material? If so, how?

Not currently.

What software system(s) are you using for your 3-D Modeling?

Autodesk Inventor and Revit.

Is there an area you feel that 3-D CAD applications has been particularly beneficial? Or where you have had significant success?

3D CAD has been beneficial in a number of applications, from installation of components in existing facilities, to D&D planning of equipment removal.

What are some of the difficulties you have had implementing a 3-D CAD system?

- *Benefits of 3D not always recognized.*
- *3D CAD controls are not yet in place.*
- *Requires training and continued use to use effectively.*

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

- *30-60-90 Design Reviews are typically performed. Comments are recorded on Comment Resolution Forms.*
- *Nuclear Safety personnel are assigned to design team and take part in design reviews.*
- *Hazard analyses are performed at various stages of the design.*

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

Assumption maintenance varies depending upon project requirements. This is typically detailed in a Project Execution Plan if required by a project. In additions, assumptions included in functional requirements are typically controlled with the CM process. No specific assumption maintenance system is in place.

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control?

Any engineering document included in the configuration baseline of an SSC is placed under change control. This includes drawings, specifications, calculations, SDDs, vendor information, and analysis and reports.

In addition, Facility Modification Packages (our facility and associated document change process) are also maintained under configuration control.

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

For non-nuclear facilities (example: office buildings)

This decision is made by the Design Authority (Engineer assigned to the SSC) prior to turnover to operations. Typically will include functional criteria, system diagrams and installation drawings, some specifications, vendor information, test reports, etc.

For nuclear facilities

Same as for non-nuclear facilities.

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup member? - *No*

Attachment 3

Sandia National Laboratories Input

Site Information:

Site [Sandia National Laboratories, NM](#)

Company/Division: [Radiation Sciences. Nuclear Facility Operations, TA-V, 1380](#)

Name of Person filling out questionnaire (or contact point): [Nels Hoadley](#)

Phone # (best to reach at if question): [\(505\) 844-3520](#)

Email: nwhoadl@sandia.gov

Electronic Signature Process

Does your site/company use an electronic signature process for approvals? (*If no, skip to the next major category of questions*) -- *No*

CM Software Applications

Please list the CM software systems that your company/site uses (examples: auto manager Meridian; home grown, etc.)

Master Equipment List database – homegrown.

Master Document List – Excel spreadsheet migrating towards homegrown database.

Records Management – homegrown.

CAD – Bentley MicroStation V8, ProjectWise

Adobe Acrobat

Are there issues or limitations to the system(s) you are presently using?

Systems are stand-alone and do not have established relationships between data; no integration or auto-notification of change impacts.

Do you use different systems for documents versus drawings? If so, describe.

Use Adobe for general viewing of both. Procedures are in Work, Drawings in Bentley MicroStation.

Do you control your procedures (administrative or operating) differently than other technical documents?

No. All are controlled documents subject to revision control.

How do you control changes to software (PLCs, firmware, site developed software systems)?

In accordance with a software Quality procedure and software Quality Plan.

Are you considering different systems?

Yes. Enterprise Informatics (eB for Nuclear)

3D Model Applications

Does your site/company use 3-D CAD software in design? (*If no, skip to next major category of questions*).

Yes.

Do you manage the 3-D CAD output as CM/Design media or as reference information?

Reference Information

What software system(s) are you using?

SolidWorks

Is there an area you feel that 3-D CAD applications has been particularly beneficial? Or where you have had significant success?

I believe that the program is very beneficial for the parts modeling we do here at SNL TA-V Nuclear Facilities.

What are some of the difficulties you have had implementing a 3-D CAD system?

Older drawings for original equipment have either been lost or a configuration management program was not being implemented at the time they were created. This caused drawings to be outdated, leaving us with inaccurate or insufficient data for 3-D creation.

*Contact: Derek AaronSCOKE, SNL TA-V Nuclear Facilities CAD Operator,
daarons@sandia.gov or (505) 284-8207.*

Other

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup members?

We are currently pursuing several CM improvements in response to HS-64 Findings. Successful implementation of those solutions may be shared.

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

No PDSAs currently being employed here.

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

For design changes, assumptions are documented in the package and maintained as part of the package until implemented. Here our design change process is paper-based and not yet electronic. Post implementation, important design assumptions should be carried forward into the affected design documents and system design descriptions.

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control? (Examples might be System Design Descriptions; Safety Basis documents; Permit applications; Specifications)

All controlled documents are maintained and subject to the change control process as described in their respective administrative procedure; Drawings-Drawing procedure, Operating procedures-Control of Procedures procedure, Calculations-Engineering Calculations procedure, and so on. Physical Modifications are performed via a Change Control-Physical Modification procedure that describes the overall process that includes both the hardware and software changes and updates.

Attachment 4

Los Alamos National Laboratory Input

Site Information:

Site [LANL](#)

Company/Division: [LANS Eng Directorate](#)

Name of Person filling out questionnaire (or contact point): [Tobin Oruch](#)

Phone # (best to reach at if question): [505-665-8475](#)

Email: oruch@lanl.gov

General Questions

Do you utilize computers to maintain CM? If not, describe your process (es).

Yes, the Master Document List and Master Equipment Lists are online databases. Drawings are done in AutoCAD and retrievable online. Change packages are a mix and described below. Documents of other kinds are beginning to be managed by Documentum and similar systems.

Do you use electronic and manual systems to maintain CM? If so, describe your process (es).

Yes. Most change control documents [Doc Change Package-DCP (nuclear/high-hazard), Eng Change Notice-ECN (low hazard)] are currently paper-based; however, Doc Change Forms-DCFs (nuc/HH but simple) are done mostly online via SharePoint/InfoPath workflow management and we expect to automate DCPs and eventually ECNs, calcs, etc. with Sharepoint.

Electronic Signature Process

Does your site/company use an electronic signature process for approvals? (If no, skip to the next major category of questions)

Yes, in a limited way for Infopath documents within SharePoint . InfoPath documents are "signed" by an authenticated user, not using digital signatures but via LANL network domain authentication in a SharePoint workflow.

If yes to #1, what types of documents does it cover or not apply to?

Only DCFs at this point.

Is professional engineering (PE) stamping required?

No when performed in-house, yes when outside AE.

How do you address PE stamps?

Has not been addressed in electronic arena.

When you implemented electronic signature, did you phase in implementation (by group or type of document) or did you convert all at the same time?

Phased in along with Sharepoint/InfoPath phase-in now underway.

What types of training or orientation did you do?

Classroom type orientation.

Do you still allow alternate signature processes? If so, how is this working for you?

Yes, reversion to paper record and ink signature is still allowed at this time.

How do you maintain authorized Signature List?

Users specify designated signer(s) via workflow selection within SharePoint. SharePoint uses LANL network domain authentication to ensure only the designated signer completes the approval workflow(s). Acceptable signers are designated in approved Conduct of Engineering procedures based on role.

Is your signature process part of a larger Electronic routing process (i.e., Work Flow)?

Yes, standard MS Office Sharepoint Server 2007 workflow capabilities are used.

CM Software Applications

Please fill out the table below, listing the CM software applications that your company/site uses:

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
PassPort v.10	MEL and maint mgmt	~500	COTS	Ventyx (was Indus)
MOADS (Mother of all Databases)	Master Doc List, window to drawings and some meta data; being phased out for Documentum	~500	homegrown	
SharePoint and Infopath	Eng change control document creation and approval – workflow. Also plan to use for document handling front end to Documentum.	>100, being phased in for site over next few months	COTS with forms and flows done locally	Microsoft
Documentum	Doc and record mgmt	~50, being phased in for site over next few months	COTS	EMC Corporation
Domino	Doc mgmt	~100, may get replaced by Documentum	COTS	Lotus
CORE	Systems eng (reqts mgmt) for largest nuclear projects only	~2	COTS	Vitech

What CM application do you use to manage the following information types?

Types of Information Under CM	Name of CM Application	POC (name/phone)
System Design Descriptions (SDDs)	None yet, will be shapepoint/Documentum	Gurinder Grewal, 505-667-3667
Design – Drawings	None yet, no plan/schedule to resolve	Richard Trout, 505-665-1142; Ed Seawalt 665-4522
Design – Technical Documents	MOADS giving way to Documentum	Caryn Gates, 665-3130
Design – Changes	Sharepoint, Infopath	Curtis Thomson, 667-8510
Specifications	Standard specs on www but project and procurement ones done in Word manually	Gurinder Grewal, 505-667-3667

Types of Information Under CM	Name of CM Application	POC (name/phone)
Vendor Information	manually	Gurinder Grewal, 505-667-3667
Material/Parts Lists	manually	Gurinder Grewal, 505-667-3667
Training manuals	Done manually	Lyle Kerstiens, 665-2224
Training Lesson Plans	Homegrown EDS system manages training plans and completion status	Lyle Kerstiens, 665-2224
Work Planning Package	Manually using PassPort as initiator	Fred Berl, 665-4114
Technical (ops & mtn) Procedures	Manually mostly, some using Documentum or Domino	Gurinder Grewal, 505-667-3667
Administrative Procedures	Website for management and institutional engineering APs	Gurinder Grewal, 505-667-3667
Limits & Setpoints	Controlled as discrete calculations per AP-341-613 and -605	Gurinder Grewal, 505-667-3667
S/RID	We have a high level Contract Appendix online versus S/RID	Yvonne Salaz, 665-6896
Software input or coding (non-COTS)	Process software is controlled per AP-341-507.	Gurinder Grewal, 505-667-3667

Are there issues or limitations with the application(s) you are presently using?

For drawing file mgmt, it is not clear that Documentum will handle AutoCAD drawings and xref files well. PDMLink is being used for programmatic work and Pro-E drawing files only though it may work better than Documentum. Drawing issue taking a backseat to document control need right now and not being worked.

Are you considering different applications? If so, list those applications.

Had been considering Meridian for AutoCAD (and maybe other file types)

3D Model Applications

Does your site/company use 3-D CAD software in design?

Yes, major projects use AutoCAD (or others and convert)

Do you manage the 3-D CAD output as CM/Design media or as reference information?

The model? As both, with 2-D drawings also created/managed.

Do you manage the Design Media/Reference Information as record material? If so, how?

All files must be delivered and are electronically managed.

What software system(s) are you using for your 3-D Modeling?

AutoCAD for facilities, Pro-E and others for programmatic work ("non-CM" in this context)

What are some of the difficulties you have had implementing a 3-D CAD system?

Maintaining a trained and competent workforce.

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

We have design revision control requirements and forms not specific to this situation.

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

Yes, this is quickly becoming the requirement. Can be manual but suggesting CORE or similar database.

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control?

All tech baseline documents are supposed to be rev controlled. Incorporation of amendments is mostly limited to drawings and probably largely theoretical except for active construction projects.

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

For nuclear facilities

In theory, Design. Authority decides which drawings essential and support and those are maintained.

For non-nuclear facilities (example: office buildings)

Same as for nuclear, though fewer will be essential and support.

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup member?

SharePoint and Infopath for workflow is working very well.

Attachment 5 Waste Isolation Pilot Plant (WIPP) Input

Site Information:

Site [WIPP Site](#)

Company/Division: [URS / Washington TRU Solutions, LLC](#)

Name of Person filling out questionnaire (or contact point): [Bob Cullum](#)

Phone # (best to reach at if question): [\(575\) 234-8683](#)

Email: bob.cullum@wipp.ws

General Questions

Do you utilize computers to maintain CM? If not, describe your process(es).

Yes, they are tools used to track documents.

Do you use electronic and manual systems to maintain CM? If so, describe your process(es).

Yes, Engineering Change Order (ECO) Register for tracking hard copies of ECOs, Drawing Register/Database for tracking Mylar drawings, Electronic Document Management System (EDMS) for Procedures, Material Equipment List (MEL) (CHAMPS database) for tracking site equipment.

Approvals on ECOs and drawings are obtained manually. Approvals on procedures are obtained electronically.

Electronic Signature Process

Does your site/company use an electronic signature process for approvals? (If no, skip to the next major category of questions)

Yes

If yes to #1, what types of documents does it cover or not apply to? (e.g., drawings, engineering calculations, procedures, etc.)

It covers all controlled documents (e.g. procedures, not drawings) maintained in the electronic document management system (EDMS).

Is professional engineering (PE) stamping required?

On some drawings.

How do you address PE stamps?

Drawings are stamped and signed by PE. If drawing is modified the new drawings gets a new PE stamp and signature.

When you implemented electronic signature, did you phase in implementation (by group or type of document) or did you convert all at the same time? *As far as I know, everything was "grandfathered" in at once.*

What types of training or orientation did you do?

Super-users traveled to vendor site for training. Vendor came to our site to train the rest of us.

Do you still allow alternate signature processes? If so, how is this working for you?

Yes. It works well. In cases where “approval” is given via email or hard copy signature, the info is still entered into the EDMS, and any applicable paperwork is incorporated into the records package.

How do you maintain authorized Signature List?

Apart from payroll, EDMS only.

Is your signature process part of a larger Electronic routing process (i.e., Work Flow)?

No.

CM Software Applications

Please fill out the table below, listing the CM software applications that your company/site uses:

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
ECO register	Track ECOs	Site	Home Grown	MS Access
Drawing register	Track Drawings	Site	Home Grown	MS Access
CHAMPS	Track equipment	Eng and Ops personnel	COTS	CHAMPS software Inc.
QMIS	Track procedures	site	COTS	Pilgrim software, Inc.

What CM application do you use to manage the following information types:

Types of Information Under CM	Name of CM Application	POC (name/phone)
System Design Descriptions (SDDs)	QMIS	Bob Cullum 575 234-8683
Design – Drawings	Drawing Register	Bob Beeman 575 234-8954
Design – Technical Documents	ECO Register	Bob Cullum 575 234-8683
Design – Changes	ECO Register	Bob Cullum 575 234-8683
Specifications	QMIS	Bob Cullum 575 234-8683
Material/Parts Lists	MEL (CHAMPS)	Bob Cullum 575 234-8683
Work Planning Package	CHAMPS	Bob Cullum 575 234-8683
Administrative Procedures	QMIS	Bob Cullum 575 234-8683
Limits & Setpoints	CHAMPS	Bob Cullum 575 234-8683

Are there issues or limitations with the application(s) you are presently using?

Yes

Are you considering different applications? If so, list those applications.

Yes, SharePoint.

3D Model Applications

Does your site/company use 3-D CAD software in design? (*If no, skip to next major category of questions*).

Yes.

Do you manage the 3-D CAD output as CM/Design media or as reference information?

No.

Do you manage the Design Media/Reference Information as record material? If so, how?

Yes, through the ECO process.

What software system(s) are you using for your 3-D Modeling?

Pro-E.

Is there an area you feel that 3-D CAD applications has been particularly beneficial? Or where you have had significant success?

No.

What are some of the difficulties you have had implementing a 3-D CAD system?

Cost and time finding experienced users.

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

USQ performed after reviews and prior to approval.

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

No.

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control?

Example: SDD are approved through the ECP and/or ECO process and reviewed through the EDMS, in this case QMIS.

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

For non-nuclear facilities (example: office buildings): *Yes*

For nuclear facilities: *Yes*

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup member?

Best practice – Annual System Walkdown procedure serves as CEs annual refresher training for maintaining COG-ship.

Attachment 6 ***Savannah River Nuclear Solutions (SRS M&O) Input***

Site Information:

Site: [Savannah River Site \(SRS\)](#)

Company/Division: [SRNS /M&O/Site Engineering](#)

Name of Person filling out questionnaire (or contact point): [John Parker](#)

Phone #: 803-208-0269

Email: john.parker@srs.gov

General Questions

Do you utilize computers to maintain CM? If not, describe your process(es).

Yes.

Electronic Signature Process

Does your site/company use an electronic signature process for approvals?

Yes.

If yes to #1, what types of documents does it cover or not apply to? (e.g., drawings, engineering calculations, procedures, etc.)

Does not apply to: Configuration Management Implementation Plans, E3 Specifications. Most all documents are electronically signed: reports, studies, designs (drawings' originators, approvers, checkers, etc.), design changes, SDDs, etc.

Is professional engineering (PE) stamping required?

In certain cases.

How do you address PE stamps?

Hard signed.

When you implemented electronic signature, did you phase in implementation (by group or type of document) or did you convert all at the same time?

Phased in.

What types of training or orientation did you do?

Classes conducted by the Document Control Register (DCR) Group on how to route for electronic signatures.

Do you still allow alternate signature processes? If so, how is this working for you?

Yes. To the best of my knowledge it has worked effectively. Each facility usually has an individual(s) that can alternate sign.

How do you maintain authorized Signature List?

It is controlled via Manual 1B, MRP 3.10 and ShRINE will list the managers who have authority. Facilities also maintain a list of people who are authorized to sign documents, designs, reports, etc. who in some cases are not managers. For example, design Authorities, Safety, QA, etc.

Is your signature process part of a larger Electronic routing process (i.e., Work Flow)?

In some cases depending on the complexity of a project or design. Obviously the more complex, the higher the routing process.

CM Software Applications

Please fill out the table below, listing the CM software applications that your company/site uses

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
Smart Plant Foundation (SPF)	Tracks design changes, drawings, SDDs, modifications	Entire Site	COTS	Intergraph

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
PassPort	Lists equipment	Entire Site	COTS	INDUS
Document Control Register UNIX via Lotus Notes	Files drawings, reports, studies, Technical Baseline Lists, Configuration Management Plans, Procedures (when part of TBL)	Entire Site	COTS	UNIX / Lotus Notes
Site Tracking Analysis & Reporting (STAR) and Active Server Pages	Tracks CM Self Assessments, Findings, observations statuses, etc.	Most of the Site	Home grown (Oracle database)	NA

What CM application do you use to manage the following information types:

Types of Information Under CM	Name of CM Application	POC (name/phone)
System Design Descriptions (SDDs)	SPF	Mark Vargo 803-208-2990
Design – Drawings	SPF and DCR via UNIX Lotus Notes	Mark Vargo & Denny Vanover 803-557-5610
Design – Technical Documents	SPF and DCR via UNIX Lotus Notes	Same as above
Design – Changes	SPF	Mark Vargo
Specifications	Field Material Tracking System	Jon Allen 803-208-3798
Vendor Information	Quality Supplier List (FMPro)	Jon Allen
Material/Parts Lists	PassPort (INDUS)	Mark Vargo
Training manuals	Electronic Document Workflow System (EDWS) & Site Records System (Home grown)	Tom McCarthy 803-925-2185
Training Lesson Plans	Same as above	Tom McCarthy
Work Planning Package	PassPort	Mark Vargo
Technical Proc. (ops & mtn)	DCR via UNIX Lotus Notes	Denny Vanover
Administrative Procedures	EDWS	Tom McCarthy
Limits & Setpoints	(Each facility maintains their own separate database for these, as set-points/limits vary from facility to facility)	NA
S/RID	Microsoft Access via Active Server Pages	Chip Patterson 803 952-8749
Software input or coding (non-COTS)	Active Server Pages	Same as above

Are there issues or limitations with the application(s) you are presently using..

Not that I know of.

Are you considering different applications? If so, list those applications.

Not that I know of.

3D Model Applications

Does your site/company use 3-D CAD software in design?

Yes. Microstation & Intergraph PDS

Do you manage the 3-D CAD output as CM/Design media or as reference information?

We extract reference drawings from the 3-D model and enter them for configuration control. The 3-D model is fixed and active and accessed only by authorized persons.

Do you manage the Design Media/Reference Information as record material? If so, how?

Yes. From the model, this material is sent to the DCC Document Control Center) and the DCR.

What software system(s) are you using for your 3-D Modeling?

Intergraph PDS

Is there an area you feel that 3-D CAD applications has been particularly beneficial? Or where you have had significant success?

Almost everywhere, especially for piping, jumpers, valves, etc.

What are some of the difficulties you have had implementing a 3-D CAD system?

According to the people that use such, a "Print Cloud" would be a great assess in determining field configuration to minute details and make 3-D entries easier.

Implementing 3-D in some areas is difficult, as they are still using 2-D.

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

This is done via the following: "Conduct of Engineering and Technical Support," Procedure Manual E7, Procedures 2.60 "Technical Reviews," 2.31 "Engineering Calculations," 2.37 Design Change Forms, and 2.38 Design Change Packages."

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

Yes. They are documented (via electronic and hard-copy documents, e.g. "Uncertainty Calculations" forms) in accordance with "Quality Assurance" Manual IQ, Procedure 3-1 "Design Control," Section E "Design Analysis." Also, electronic copies are filed and recorded in accordance with Quality Assurance Manual IQ, QAP 17-1 QA Records management. Assumptions are also tracked and maintained via Manual E7, Procedure 2.02 Baseline Technical Task Requirements."

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control?

Yes. These types of documents include the ones mentioned above as well as Configuration Management Plans, Configuration Management Implementation Plans, Corrective Action Reports, NEPAs, all UCNI documents, etc.

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

- a. For non-nuclear facilities (example: office buildings)

Archived if deemed Out of-Commission via Manual 8Q "Employee Safety Manual" Procedure 121, "Out of Commission Process." "Essential, Support and General" drawings are maintained as current.

- b. For nuclear facilities

Drawings are classified as "Essential, Support or General" Essential drawings are updated within thirty days after a modification has been field installed. Support drawings are updated after field installation of the fifth amendment (modification). Generals at the discretion of the Facility Manager. Drawings are normally not archived unless the associated SSCs has/have been deemed

Out-of-Commission. Drawings also can be archived by requesting the DCR group to place them in a Non Technical Baseline (NTB) status.

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup member?

We have developed a Technical Baseline Reconstruction Component Location Identifier (CLI) electronic database that greatly expedites field walkdowns and data input. This database extracts the existing CLIs, each on an individual sheet, for a particular system that can be taken into the field and brought back in the office, scanned and entered into Smart Plant Foundation in one easy step. The form contains all needed information required for entry into SPF. For those CLIs found in the field that are in SPF, the form serves as a recording device for subsequent entry into SPF.

Attachment 7
Salt Waste Processing Facility (SWPF – Savannah River) Input

Site Information:

Site SWPF at SRS

Company/Division: Parsons, P&IT

Name of Person filling out questionnaire (or contact point): Bill Bushall

Phone # (best to reach at if question): 803-643-2308

Email: william.bushall@parsons.com

General Questions

Do you utilize computers to maintain CM?

yes

Do you use electronic and manual systems to maintain CM?

yes

Electronic Signature Process

Does your site/company use an electronic signature process for approvals?

No, but working on electronic approval

CM Software Applications

Please fill out the table below, listing the CM software applications that your company/site uses:

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
	Review, Approval, Tracking	Available to all	Home Grown	

What CM application do you use to manage the following information types:

All use the same process

Are there issues or limitations with the application(s) you are presently using..

Limited by acceptability to an electronic process, currently all change control is manual and paper driven

3D Model Applications

Does your site/company use 3-D CAD software in design? (*If no, skip to next major category of questions*).

Yes

Do you manage the 3-D CAD output as CM/Design media or as reference information?

No

Do you manage the Design Media/Reference Information as record material? If so, how?

No

What software system(s) are you using for your 3-D Modeling?

Microstation for regular CAD, PDS 3D Design (Intergraph)

Is there an area you feel that 3-D CAD applications has been particularly beneficial? Or where you have had significant success?

Yes the entire project and viewed by the client as a great tool

Primary PDS coordinator Dave Steffgen 803-643-2321

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

All are reviewed by the nuclear safety department, all changes, SS or not.

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

No

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control?

- *P-DB-J-00002, SWPF Design Criteria Database;*
- *P-DB-J-00003, SWPF Process Basis of Design;*
- *P-DB-J-00004, SWPF Balance of Plant Basis of Design;*
- *Process Flow Diagrams;*
- *Piping and Instrumentation Diagrams;*
- *Site Plot Plans;*
- *General Arrangements;*
- *Electrical Single Line;*
- *HVAC Air Flow and Control Diagrams;*
- *M-MX-J-0001, SWPF Equipment Database;*
- *J-JX-J-0002, SWPF Instrument Index;*
- *M-ML-J-0001, SWPF Line List;*
- *M-MV-J-0001, SWPF Valve List;*
- *Functional Classification Document Form;*
- *Radiation Zone Drawings; and*
- *Material Handling Mechanical Flow Diagrams.*

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

For non-nuclear facilities (example: office buildings)

All three

For nuclear facilities

All three

Attachment 8 B&W Pantex Input

Site Information:

Site **B&W Pantex**

Company/Division: **Engineering Division – Configuration Control (Facilities)**

Name of Person filling out questionnaire (or contact point): **Veronica Lawson (Ronnie)**

Phone # (best to reach at if question): **806-477-6622**

Email: **VLAWSON@pantex.com**

General Questions

Do you utilize computers to maintain CM? If not, describe your process (es).

Yes.

Do you use electronic and manual systems to maintain CM? If so, describe your process (es).

We use both. Hard copies of change packages, documents and drawings are required, in addition to electronic access.

Electronic Signature Process

Does your site/company use an electronic signature process for approvals?

No. However, the Quality Division is actively pursuing the use of electronic signatures.

CM Software Applications

Facility Configuration Management is in the process of developing an in-house program, Configuration Integration Management System. It is giving us the ability to design, develop, and manage our business processes, task request to final disposition.

- Is a software based system*
- Utilizes off-the-shelve Microsoft products*
- Provides tracking and status capability*
- Organizations utilize their current processes*
- CIMS process models can be developed one by one*
- User training is minimal (they already know their own processes!)*
- Process models can be revised in emergent situations*
- CIMS software is managed by Configuration Control (eliminates inadvertent software changes that could impact other connected organizations and processes)*
- Processes are managed by individual organizations*
- CIMS is not controlled by external vendors with updates that can adversely affect productivity and cost unplanned \$.*
- Baseline program panels are in the process of being established*
- Panels are required to be tested when completed*
- Subsequent panel changes require Design Change Proposal (DCP) and re-testing*
- Formal reviews and issue history updates are required for panels*

Are there issues or limitations with the application(s) you are presently using?

No application issues.

Are you considering different applications? If so, list those applications.

No.

3D Model Applications

Does your site/company use 3-D CAD software in design? (*If no, skip to next major category of questions.*)

Only one system (hoist/lift) is permitted to use 3-D images. At this point, drawings are still in process of development.

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

Design is accomplished by incorporating the safety basis requirements during the design process. After the DSA is approved, changes against the design are evaluated through the USQ process.

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

Assumptions are maintained and documented through controlled documents, which become project records. Requirements databases are utilized, but not for documenting assumptions.

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control?

All Facility CM documents (including drawings) are under the same rigorous change control process, which includes establishing the initial Technical Baseline Document, utilizing Design Change Proposals (DCP) and Design Change Notices (DCNs), and tracking the process until closure of the DCP.

The following lists the document types:

Non-NRTL Listed Equipment Evaluations

Acquisition Level Determinations

Analysis

Assessments

Calculation

Category 2 Metrology Inspections

Category 2 Preventive Maintenances

Category 2 Electrical Equipment Evaluations

Moveable Category 3 Electrical Equipment Evaluations

Electrical Equipment Electrostatic

Discharge Safety Evaluations

Electrical Equipment Lightning Safety Evaluations

Electromagnetic Radiation Evaluations

Electrical Safety Evaluations

Combustible Loading Dispositions

Configuration Management Data

Design Basis Documents

Design Criteria Documents

Design Information Summaries

Design Recovery Documents

Design Requirements

Engineering Calculations

Engineering Data

Engineering Evaluations

Engineering Support Documents

Fire Protection AHJs

Focus Assessments

Facility Fire Assessments

Fire Hazard Analysis

High Explosive Safety Documents

Item Equivalency Evaluations

Incident Investigation Reports

Material Condition Walk downs

Operability Evaluations

Seismic Reports

Specifications

Tracking and Trending Reports

Vendor/O&M Manuals

*Walk down Packages
Current Condition Drawings*

*Class 1, Class 2, Class 3 and Class 4
Drawings*

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

For non-nuclear facilities (example: office buildings)

All non-nuclear facility drawings are processed but not controlled under CM. They are scanned and made available for users.

For nuclear facilities

System Engineering determines which drawings are extrapolated and formally placed under CM. All other nuclear facility drawings are processed as described in (a.)

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup member?

We are looking forward, at some time in the future, of presenting the CIMS to the CM Subgroup.

Attachment 9 Y-12 Input

Site Information:

Site: [Y-12 National Security Complex](#)

Company/Division: [B & W Technical Services / Engineering](#)

Name of Person filling out questionnaire (or contact point): [Kenneth E. Lowe / Brad Walker](#)

Phone # (best to reach at if question): [\(Kenny L - 865.241.7573\) \(Brad W – 865.574.8930\)](#)

Email: Loweke@y12.doe.gov / Walkerbk@y12.doe.gov

General Questions

Do you utilize computers to maintain CM? If not, describe your process (es).

No. Currently this is a manual process. We do have a database that controls access to drawings. Also, there are plans to go to a workflow control process for change requests.

Do you use electronic and manual systems to maintain CM? If so, describe your process (es).

Manual, per procedure Y15-004PD, Configuration Management Program.

Electronic Signature Process

Does your site/company use an electronic signature process for approvals?

Currently, only a couple of systems. Our AJHA and NCR systems are now electronic approval.

Is professional engineering (PE) stamping required?

For designs we are doing in house, typically not. PE stamps are only required for documents that support things such as state permits, etc. We do typically require outside A/Es to stamp work performed for Y-12.

How do you address PE stamps?

PE stamps are controlled by Y17-69-333INS, Certification and Stamping of Documents by Registered Engineers and Architects. Stamps are applied per as required by the Federal Facilities Agreement and Code of Federal Regulations: 40CFR 112.3c, 264.115, 264.120, 264.191, and 264.192

When you implemented electronic signature, did you phase in implementation (by group or type of document) or did you convert all at the same time?

N/A. See above for the only systems where this is somewhat applied.

What types of training or orientation did you do?

No formal training. Notification is made of pending changes through Standing Orders, followed by changes to the implementing procedures.

How do you maintain authorized Signature List?

For those system using electronic approvals, required approvals are part of the input into the system. These individuals are then notified electronically that an approval is waiting.

Is your signature process part of a larger Electronic routing process (i.e., Work Flow)?

Not currently. This is an area that will be developed.

CM Software Applications

Please fill out the table below, listing the CM software applications that your company/site uses:

Name of Software Application	Function	# of Users	COTS or Home Grown	Vendor
Infoworks	Project Document Management	100		X
Engineering Document Control System	Drawing Database/Control	150	X	
SAP Applications	Being Developed			X (tailored to meet Y-12 needs)

What CM application do you use to manage the following information types?

Types of Information Under CM	Name of CM Application	POC (name/phone)
System Design Descriptions (SDDs)	Manually	N/A (since manual)
Design – Drawings	Manually	N/A (since manual)
Design – Technical Documents	Manually	N/A (since manual)
Design – Changes	Manually	N/A (since manual)
Specifications	Manually	N/A (since manual)
Vendor Information	N/A	N/A (since manual)
Material/Parts Lists	Manually	N/A (since manual)
Training manuals	N/A	N/A (since manual)
Training Lesson Plans	N/A	N/A (since manual)
Work Planning Package	Manually	N/A (since manual)
Technical (ops & mtn) Procedures	Manually	N/A (since manual)
Administrative Procedures	Manually	N/A (since manual)
Limits & Setpoints	Manually	N/A (since manual)
S/RID	Manually	N/A (since manual)

Are there issues or limitations with the application(s) you are presently using?

Just that it is a manual process.

Are you considering different applications? If so, list those applications.

Additional electronic signatures are being explored as we migrate toward these new systems.

3D Model Applications

Does your site/company use 3-D CAD software in design? (If no, skip to next major category of questions).

Only for the new Uranium Processing Facility (UPF). This is currently in the early stages of preliminary design.

Do you manage the 3-D CAD output as CM/Design media or as reference information?

Both the model and output will be under CM.

Do you manage the Design Media/Reference Information as record material? If so, how?

Through InfoWorks and ProjectWise software.

What software system(s) are you using for your 3-D Modeling?

Bentley Plant Space

Is there an area you feel that 3-D CAD applications has been particularly beneficial? Or where you have had significant success?

First large scale use will be on UPF

What are some of the difficulties you have had implementing a 3-D CAD system?

The sheer magnitude of UPF and integrating the very unique project execution into established procedures.

Other

How do you document (or do you) screening of design changes after PDSA is approved and before Final DSA is submitted?

Through design reviews, which normally use a checklist.

During design, do you formally maintain assumptions in a controlled system? Is it via document, database, or...?

Supposed to, by procedure. At times, controlling these has been an issue.

Do you maintain any documents under rigorous change control similar to drawings (e.g. engineering change notices, updates within xx number of ECNs, etc.)? If so, what types of documents are under this control? (Examples might be System Design Descriptions; Safety Basis documents; Permit applications; Specifications).

Yes. Drawings, calcs, safety basis, SDDs, etc. Each system has a Technical Basis Index Summary (TBIS) developed, that lists all the documents that are to be maintained under CM. The determination is made by what is critical to maintain the integrity of the technical basis and what is required for the day to day operation of the system/facility.

For a new facility or major upgrade, which drawings, out of the construction as-built set, do you maintain current and as-built versus archiving?

For non-nuclear facilities (example: office buildings). *Typically flow diagrams plant wide utility systems, loop diagrams, electrical one-lines, life safety/fire protecting, etc.*

For nuclear facilities *Ditto, plus drawings showing criticality spacing, equipment layouts, safeguard and security features, etc. All those drawings that provide support information and important details about SSCs.*

Are there some recent successes or best practices that you would like to share with other EFCOG CM subgroup member? *No*