



Part 1 - What is Engineering Document Control?

Part 2 - More About Documents

Part 3 - More About 'Reasons for Issue'

Part 4 - Document Numbers and Revisions

Part 5 - Document Review and Approval

**Part 6 - Receiving Documents - Actions before
Registering them.**

Part 7 - Receiving Documents - Registering them.

Part 8 - Distributing Documents.

Part 9 - Distribution Documents: Distribution Matrices.

**Part 10 - Distributing Documents: Distribution Sheets
and Transmittal Notes.**

**Part 11 - Reporting Requirements from Engineering
Document Control Systems.**

Part 1 - What is Engineering Document Control?

Engineering Document Control is all to do with the management of all information on engineering documentation, including document creation, distribution, cataloging, storage and retrieval.

On most projects information comes in the form of documents - which might be drawings, specifications, plans, method statements or even samples - and are received at a central point. On construction projects this is often referred to as the Engineering Document Control Department and Engineering Document Control Centre or Document Control on larger projects, although it is increasingly 'trendy' to use the terms Information Manager and Document Control Centre.

Once received (regardless internal or externally), documents are registered, their basic details noted in a database, on a spreadsheet, or even handwritten onto distribution sheets or into log books. The basic details might include things like the document number, revision, title, size, originator and reason for issue/use.

COPIES of documents that have been registered can then be distributed to interested parties.

Original documents should NOT be allowed to leave the Information Management office, generally speaking to let anyone have the originals is akin to throwing them away - people will claim never to have had them and the Engineering Document Control will be forced to ask for replacements.

Documents which have not yet been registered should not be given to anyone AT ALL, even VP's, Project Managers or other senior staff as they will almost certainly go missing.

Typically, where documents have come from the specialists or engineers of a construction project (often referred to as the Design Team), they would be distributed to the organizations doing the actual work (these are referred to as Works Contractors, Trades or Packages).

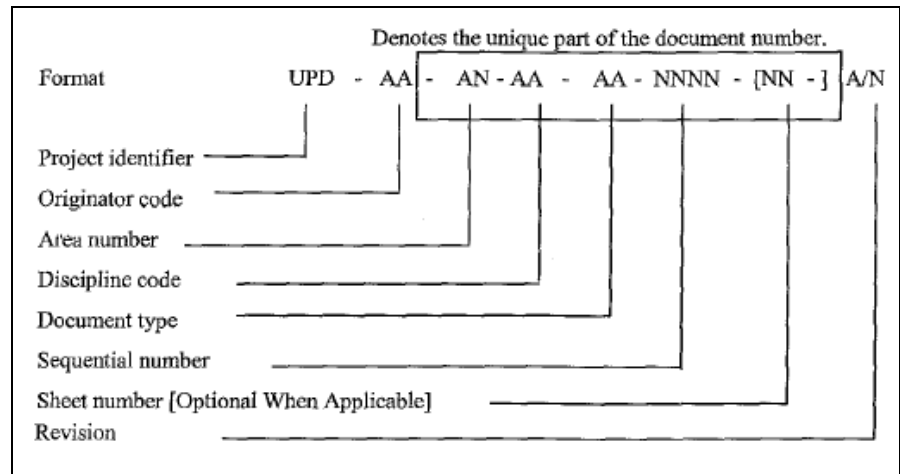
Part 2 - More About Documents.

Almost everything can be a document. On an engineering or construction project the most common documents are:

- Drawings - These could range from simple sketches to complex process flow diagrams often as not these days drawings are produced on CAD machines or MICROSTATION. Most popular engineering drawings abbreviation shall be GA (General Arrangement), P&ID (Process/Piping And Instrumentation Diagrams) and PFD (Process Flow Diagram)
- Specifications - These are often word processed documents which contain a description of works being undertaken and may well include extracts from other third party documentation such as manuals and literature.
- Method Statements - These are also often word processed documents which detail the manner in which work is intended to be carried out. Method statements are often related to safety issues, or potential safety issues, such as the erection of scaffolding or removal of hazardous waste.
- Samples - These range from swatches of carpet to desks and fenestration. Samples should not be left out of the Engineering Document Control process. Whilst it will be difficult to distribute a desk submitted for approval, it is quite possible to create a 'sample submission sheet' and record the details on that.

There are some things which all documents have in common.

- Originator - All documents have to come from somewhere, or someone. This shall also be an abbreviation or initial name and even consultant name.
- Document Number - In order to track documents effectively, the originator must provide a unique document number for each one. Where document controllers are using computer systems to register documents, care must be taken to ensure that document numbers follow a consistent approach. Where, for example, the document originator has used both forward '/' and back '\' slashes in their document numbers, it would be sensible for the document controller to stick with just the one version. Care should also be taken to look at number series - if documents 1 - 10 are received, it is normal to record the first ninety-nine as 001, 002 etc. this helps computers 'sort' document numbers into a sensible order. For an example, Hess Ujung Pangkah Development team was establish the following scheme to assign the document number:



- Revision Number - Whenever the originator of a document changes its content, or often the reason for issuing it, a new revision number must be given to the document. This process is often referred to as 'revising up' a document. Where an originator does not 'rev-up' a document when it has been modified, it becomes impossible to be sure that the latest version is issued. Unfortunately, the sequence of revision numbers very rarely follows a nice simple alphabetical order! Sometimes, where a document is new, unmodified, it is acceptable to receive it without a revision number - document controllers often then use a single dash '-' to denote 'no revision', it is important not to leave the revision as a blank entry in any register as it is ambiguous - similarly for unmodified documents it is better to adopt a notation which is unlikely to be used by document originators as the first revision in their sequence (using a letter such as 'A' would be poor planning'). Here is may be suitable revision coding – just an illustration:

Revision

A- Original Issue
ex: ISSUED FOR INTERNAL REVIEW

B- First Issue To Company
ex : ISSUED FOR REVIEW
ex : ISSUED FOR INFORMATION

C, C1, C2 etc Subsequent Issues/Next Issues/Re-issues
ex : ISSUED FOR APPROVAL
or RE-ISSUED FOR APPROVAL

D- Approved For Design
Or For Record (non design document)
Approved For Enquiry

0- Approved For Construction
(all design documents)
Approved For Purchase

1,2, etc. Subsequent Issues/Next Issues

10- As-Built

11,12,13 etc . subsequent issue for As-Builting

- Document Title - All documents must have some kind of a title to assist in finding it later and differentiating between different documents.
- Date Received - It is very important to record the dates documents are received on, sometimes the late issue of documentation can be the cause of a claim later in a project.

- Reason for Issue - Clearly documents are not normally sent out for no reason at all, although it may seem that way, the reason for issuing a document is often the basis for distribution. For example a document issued by an engineer 'For Comment' might be distributed 'For Review'.
- Document Size - While not as important as the foregoing, the size of a document has a bearing on where it is stored, how it is distributed and the way in which information may be taken off it (i.e. is it to scale). Typically copies of A0, A1 and A2 size drawings are held on racks (sometimes known as sticks). A3 and A4 documents may be held in ring binders.

Part 3 - More About 'Reasons for Issue'

When a company submits documents, they usually specify a Reason for Issue. This is very often used as the basis for the subsequent distribution of the document(s) submitted. Some typical reasons for an originator submitting documents are:

- Preliminary - These are often documents in the very early stages of work. A document may be submitted as preliminary where it is intended to give guidance to third parties as to the overall size, shape or scale of a segment of the project being undertaken - such as the general layout of a floor plan or road - but it should not be used for further detailed design by third parties or for the commencement of construction work. It is not uncommon for documents to be submitted as preliminary in two or three stages (P1, P2, P3 etc.) and are normally issued to third parties 'For Information' or 'For Comment'.
- Information - Documents submitted for information are usually intended for guidance, they may be preliminary in nature or they may not be comprehensive (i.e. not finalized). Documents received 'For Information' are typically passed on to third parties 'For Information' or sometimes 'For Review'. Trade contractors would rarely be expected to start construction on the basis of 'For Information' documents.
- Tender - Documents submitted 'For Tender' is usually intended for issue to potential bidders to price the work. Tender documents can form the basis of contracts so need to be as finalized as possible at the time of issue - or there may well be cost implications.
- Comment, Review and Approval - Documents submitted 'For Approval' (or any similar reasons) are generally ones of a contentious nature. A works contractor with some design responsibility might have to submit all documents 'For Approval' to allow the architects and other members of the design team to 'vet' them. Typically when documents are sent in 'For Approval' the design team only has a limited amount of time (contractually, and the amount of time may vary from project to project or from contractor to contractor on the same project) to review the documents and return any comments to the originator. The critical thing about approval documents is that the document controller is very often expected to 'chase' the design team to some extent and try to ensure that they are reviewed in good time. Delays in the approval of documents can cause delays to construction and, very often, be the subject of claims.
- Construction - Documents issued 'For Construction' by the design team are normally finalized and good enough to be sent on to trade contractors for the same reason. Documents submitted by works contractors for the same reason need to be checked quite carefully - as they ought normally to be 'revved-up' versions of previously approved documents. It is sometimes the case that works contractors will by accident submit documents as 'For Construction' before the design team has had a chance to vet them, document controllers are often expected to identify when this has happened and deal with the documents accordingly (which might mean returning them to the originator or passing them on to the design team for approval, either way the document controller has a reasonable obligation to let the originator know what action has been taken).
- As-Built - When work has been completed, the design team and/or the works contractor responsible normally submits documents for the reason 'As-Built'. Life being what it is, however, it may be necessary for someone to check these documents to some extent - as it is common for documents to be stamped 'As-Built' when last minute modifications had to be done on site, sometimes called 'Site Mods', during the construction process which have not been incorporated in the documentation. There are often cost implications to the person submitting documents 'As-Built', both in terms of the cost of employing someone to 'rev-up' the documents ('As-Built' documents should take the next revision number and not simply be stamped 'As-Built') and receiving final account payment. 'As-Built' documents are often not issued, they may

simply become part of an operations and maintenance manual, or issued on to what are called 'follow-on trades' for construction purposes.

Part 4 - Document Numbers and Revisions

Nearly all technical engineering documents are subject to revision. This means that a document may be altered, edited or updated, and while its number may not be changed - its revision will. A document controller normally has little or no control over the format of document numbers or the sequence of revisions.

On some projects, document originators may be required to submit documents with the numbering subject to a fixed regime - breaking documents down into systems, facilities, disciplines or areas. In practice, however, it is often very difficult to get third parties (particularly the design team themselves) to follow any pattern accurately. Most document controllers come to accept that strange and apparently inconsistent document numbering on the part of originators is something they can do little about.

As stated in Part 2, a document controller may well need to enter document numbers into a computer system in a slightly different format to that seen on the document itself. For example changing '\ ' to '/' or 'padding' numbers with leading zeros (changing 1 to 001). Another variation often employed by experienced document controllers is to segregate all documents from all drawings by prefixing document numbers with an asterisk '*'. By doing this, most computers will place all the documents before the drawings when sorted by document number.

Revision numbering is another area where document controllers are subject to the whims of document originators. In an ideal world all revisions would follow a nice simple alphabetical, or numerical, sequence and revisions would only be submitted in the order they were drawn. Unfortunately, revision sequences tend to follow the sequences set-up by the document originator and, equally regrettably, originators WILL sometimes resubmit documents that are out of date.

Where a document is received that is out of date, where a newer revision has already been received, it is important not to issue it without care. In the rare event that a document has been submitted, revised and then returned to exactly the same state of the initial revision - the originator should 'rev-up' the document to the next number in their sequence, not revert to the original revision number. The document controller can, normally, return out of date documents to the originator as unacceptable, but when the originator is a member of the design team this may not be possible.

Where an originator submits the same document and revision twice, and the document is to all appearances up to date, it should not normally be registered twice if this can be avoided. An experienced document controller would often examine the document carefully to ensure that the originator has not updated the revision legend and neglected to update the actual revision. Where there is any doubt, the document controller should refer back to the originator. As stated in Part 2, revisions can sometimes be entered into computer systems slightly differently to the way they appear on original documents - so to work round the problem of submitting the same document twice, a document controller might register the second copy using the revision followed by a period '.' or a dash '-'.

Part 5 - Document Review and Approval

Some documents need to be reviewed, or approved by the design team. In some projects this process is called collaboration. The initial stage of review seldom called Inter-Discipline Comment (IDC) and third-parties review called Issue For Review (IFR) or Issue For Approval (IFA).

Managing document approvals is one of the most difficult things which document controllers are expected to do. Doing it correctly is hard work and requires care and a methodical approach, not doing it correctly leads to chaos and the possibility of claims for the untimely delivery of information.

A document subject to review is often received 'For Approval' and would be issued to a number of people for comment. In order for the approval process to be managed efficiently it is common practice to nominate one of the recipients as a 'Lead Reviewer' for each document. This person is then responsible for gathering together the various comments made by other reviewers and deciding on a documents' status. It is this person that is normally 'chased' for the status when time runs short.

When a document is issued to the design team for approval, they are generally given a certain amount of time to complete the review and return the document to the document controller with any comments. The document controller will then normally register the documents' status and return it to the originator.

This is not always the case, however, on some projects the design team works directly with trade contractors and decides a documents' status without reference to the document controller. When this happens, it is normal for the document controller to receive only those documents which have already been approved. Under these circumstances it is often still normal practice to return a copy of the documents to the originator with the status clearly shown - as this gives them a chance to prevent the document being issued if revisions are in progress.

Typically, a documents' status falls into one of three categories:

- The document is satisfactory and may be used for construction. This is generally defined as status 'A'.
- The document is fairly satisfactory and may be used for construction once comments have been incorporated. This is generally defined as status 'B'. The originator is generally expected to submit a revised version of the document.
- The document is unsatisfactory and must be revised and resubmitted this is generally a status 'C'.

Part 6 - Receiving Documents - Actions before Registering them.

Whenever new documents, or revisions of old ones, are received they must be registered, as stated in earlier section this is often done with a computer system of some kind - or by hand on distribution sheets, in a log or notebook.

The registration process must follow a simple routine in order that documents are recorded accurately and consistently. Generally, new documents are gathered together and compared with any documentation accompanying them. Typically most documents are submitted together with some form of issue letter, often referred to as a transmittal note.

The transmittal note will generally have a reference number of some kind on it. This will need to be noted, so that any enquiries from the originator can be answered later.

Where the document originator omits a reference number of their own, it is normal practice for document controllers to put a number of their own on the incoming transmittal note. This might be just the initials of the company submitting the documents followed by a sequential number, or the date and a sequential number.

This may seem a trivial activity, but using a series of reference numbers for each transmittal makes them easier to find later. When all the documents on the transmittal have been registered, the incoming transmittal note is often filed away - along with other ones from the same source.

Having established a reference for the incoming transmittal, the documents are checked against it. At this point the document controller is looking for a number of things:

- Missing documents and documents not listed.
- Incorrectly numbered documents or documents without numbers.
- Incorrect revision numbers.
- Damaged documents which might be difficult to copy.

It should be clear from previous section why some of the above are important, in most cases common sense dictates the action to be taken for each situation.

In nearly every case an experienced document controller will contact the originator and advise them of the problem and request either documents are submitted, the transmittal updated or a new set of documents and transmittal be generated by the originator. Clearly, it is not always easy to get document originators to revise documents or resubmit them when there are cost implications. This is particularly so when the originator feels the problem is petty or trivial, the document controller will need to strike a balance between the needs of the project and the ability to encourage document originators to adopt more rigorous practices.

When any issues with the documents themselves and the transmittal that accompanied them have been resolved, they can be registered.

Part 7 - Receiving Documents - Registering them.

When any issues with the documents themselves and the transmittal that accompanied them have been resolved, they can be registered.

When registering new documents in any system, either computer or paper based, document controllers generally try to record as much information about them as practicable. There are a few things which are fairly critical:

- The Document Originator.
- The Date Received.
- The Reason Issued.
- The Document Number.
- The Revision.
- The Document Title.

It should be clear from the previous Sections why these items are important, but there are a few really useful things which often considered optional:

- The Transmittal Note Reference.
- The Document Size.
- The Document Status (if the document has been approved).
- Any other reference found on the Transmittal Note - such as an Architects Instruction Number.
- If the document relates to a specific problem area on a project, or issue of interest, this might be noted, ie. if a project had discovered that asbestos removal was likely to be a problem, an experienced document controller might make a note such as 'Asbestos' against any documents relating to the problem.

Previous Sections covered the treatment of documents numbers and revisions, but document titles need to be entered with a similar amount of care.

It is common practice to use abbreviations when recording document titles, such as 'GRND' for 'ground' and 'SECT' for section. Unfortunately, it is also possible to end up with three different abbreviations for the same term. This results in difficulty when looking for information later.

It is therefore important to adopt as consistent approach to abbreviations as possible.

Assuming that documents have been collated in a sensible manner, the document controller can then simply work through them recording each one as they go. A good practice is to use a rubber stamp to mark them as received after each one is entered into a register. If this is done, and the document controller is interrupted the process can be returned to without duplication or omission. Where documents have been stamped already, some document controller discretely initial the documents to indicate they have been registered.

Only once all the documents have been registered can they be issued, even lent, to anyone else.

Many document originators request that the receipt of documents is confirmed. This is normally done in one of two ways:

- By signing or initial a copy of the incoming transmittal note
- By signing an accompanying receipt note.

In these days of electronic communication, confirmation of receipt may also be done by e-mail.

The correct time to acknowledge receipt is after the documents have all been registered.

Part 8 - Distributing Documents.

Once documents are received, they will normally need to be issued. Indeed many computerized Engineering Document Control systems will not allow users to do anything else until newly received documents have been issued. *Document controllers often work around this by issuing the documents to themselves.*

There are a few things to consider when issuing or distributing documents:

- Who needs to have them
- Why do they need them
- How many copies and what size of copy do they need.

The 'Who' question may or may not fall to the document controller to decide. Some distribution becomes almost automatic, for example nearly all architects documents are sent out to nearly all trade contractors - each possibly for different reasons.

Often projects will develop a matrix of document types and sources and then who should receive copies. For example, electrical drawings from the design team need to be sent to the electrical contractor for construction, the mechanical contractor for information, and method statements from the operator's documents may need to go to the safety department for approval. The design team will often note the anticipated recipients of documents on their incoming transmittal, which is helpful - but not always comprehensive - and may miss out a projects 'internal' requirement such as safety and cost control departments.

There are a couple of other considerations regarding the 'Who' question, a document controller will probably send new revisions of documents to nearly everyone who received the previous ones and the exceptions to this rule being that there is no point in continuing to send documents to contractors who have finished their work - or to bidders who did not win the work or contracts. There are a few really useful things which often considered optional.

With regard to the 'Why', this will generally be decided by a matrix, sometimes by the design teams' incoming transmittal.

- Often documents received 'For Construction' are issued for the same reason.
- Sometimes internal departments may only receive documents 'For Information'.
- Documents submitted 'For Approval' will normally only be issued under the same reason or a lesser one (such as 'For Information') until they have been approved.
- Where documents are issued 'For Approval' it is generally quite important for a coordinator to be nominated, often referred to as the 'Lead Reviewer', to gather responses and form the consensus view as to the documents status.
- Clearly, all the reviewers need to be aware of who the lead reviewer is, when they need to respond by and who the other reviewers are (so they can discuss the documents).

The question of how many copies and of what size each recipient expects will vary from project to project. Some recipients may have a contractual basis for expecting two or three copies of everything sent to them, or may need two full size copies at A1 and one reduced (sometimes called a 'shutdown' or 'reduced') to A3.

A document controller has a duty to send out the right number of copies, but always to try and minimize them - as the cost of copying documents can become excessive. Minimizing the number of copies and keeping a watchful eye on the list of recipients to see if any can be dropped because their work is completed is an important part of the document controller's job.

Part 9 - Distribution Documents: Distribution Matrices.

A distribution matrix is one of the ways document controllers work out the 'Who' and 'Why' parts of distributing documents. A distribution matrix can be as simple as a rubber stamp with spaces for the names of the intended recipients which is then completed by a planner, resources coordinator or construction manager. Some projects create and maintain matrices on spreadsheets or they may form part of a computerized Engineering Document Control system.

Generally speaking, where electronic matrices are concerned, there are two levels of detail involved:



DQR 8474L

Transmittal Note

8474L-500-TN-5871

date: 19-06-2007

page: 1/2

External Addressees					
Chrono	Name	Action	Chrono	Name	Action
TNKL00-VJD-4021	8474L DQR-Directorate (e)	IFA			


Internal Addressees		
Razak Kamaluddin/Doc Control (1) Schoeler Joachim/Engineering Mgr P2- P3- P4 (e) Ahmad Amran/Engineering Mgr P1 (e) Ahmad MohdNizam/Project Eng P1 (e) Black Angus/Project Eng P1 (e) Vishnumahanti Murthy/Project Eng P2/P3 (e) Fong Choong/Wai/Project Eng P4 (e) Beraud Pierre-Stephane/Project Eng P1/P3 (e) Sylvain Antoin/ Cost Control (e) Mondakir Mislan/Planning/Scheduling (e) Steur Nicolaas/Procurement Mgr (e) Chin YikShun/Procurement Mgr (2) Sivagnanam Mari/PROCESS Eng (e) Krishna Murali/INSTRUMENT (OR+1) Ferrol André/INSTRUMENT (e) Yeong HongPoh/Inspection (e)		

Transmitted Documents MR-INSTRUMENTATION
8474L-500-MR-1553-001 rev.2 : MR- Electronic Pressure & DP Transmitters 8474L-500-SP-1553-201 rev.2 : SP-Pressur/DP Transmitters/Field Signal Indicators Unit 40 8474L-500-SP-1553-301 rev.2 : SP-Pressure/DP Transmitters/Field Signal Indicators Unit 38/51/54 .../...

Remarks:			
Issuer Name :	AMRAN AHMAD	Signature :	Acknowledged by :

Most computerized Engineering Document Control systems do not produce distribution sheets, although document controllers working with spreadsheets can usually create a reasonable facsimile. Those that do will generally take some time to create them.

The alternative transmittal that most Engineering Document Control system produced takes the form of a letter. There is generally an address section at the top, with various reference numbers and a date of issue, followed by a short piece of introductory narrative. This narrative might take the form 'Dear Sirs, please find enclosed the documents listed below...'. After the introduction section the transmittal will include a list of documents, often sorted into document number order and grouped together by the originators. The list of documents will often be followed by a closing piece of narrative which might take the form 'Please acknowledge receipt...' or 'Please return with comments ...'



Technip

Transmittal Note

CP-XXX-JA-1703-0101-0117

date: 22-06-2007

COST CODE 6785 - CILIPADI DEVELOPMENT PROJECT page: 1/2

External Addressees					
Chrono	Name	Action	Chrono	Name	Action
CP-XXX-JA-1703-01 01-0116	SSB CSR - Alvin Ko (1- (By Hand))	IFI		MFD I - Ashwini Gupta (e)	IFR
CP-XXX-JA-1703-01 01-0116	SSB DCC - Lau Mee Hua (e)	IFI		Operation Engr - Ahmad Zahrin Sahmer (e)	IFR
	Snr Engr - Uaw Sung Guan (e)	IFI			IFR
	Engr - Nor Azaidah (e)	IFI			
	Snr Engr - Norhuda Mohd Noor (e)	IFF			
	HSE Engr - Petrina Chua (e)	IFI			
	Engr - John Huo (e)	IFR			
	Snr Control & Automation - Lin Vui Chong (e)	IFR			
	Snr Engr - Hanisah Han (e)	IFR			
	Snr Engr - Samuel Kong (e)	IFR			

Internal Addressees	
TG Ramakrishnan/Project Mgr (e) Silhambaram Shamini/Project Secretary (e) Mansil KhairulAzlan/Doc Control (1) Hew ChingHua/Snr Project Eng (e) Srinivastava Ajaykumar/Cost Control / Project Services (e) Monoakir Mistan/Planning / Project Services (e) Sharma Ramvir/Project Eng (e) Rais Norahai/QHSE (e) Cheah SemHoe/Process Design (1) Tai GeeFoong/Electrical (1) Wong Zuraida/Safety (e) Cheng SeakKing/Mechanical (e) Sreenivasan Subramanian/Mechanical (OR+1) Sadi MohdNasir/Piping (e) Komatineni HariBabu/Pipeline (e) Chua ChanHiwa/Structural (e) Rajan Sundara/Instrumentation (e)	

Transmitted Documents						
TRP FOR GAS TURBINE GENERATOR						
F23-RA-EA-2109-0101 rev.01A : Datasheet For Synchronous Generator						
F23-RA-EA-2109-0102 rev.01A : Datasheet For LV Induction Motor, Turbine Starter Motor						
F23-RA-EA-2109-0103 rev.01A : Datasheet For LV Induction Motor, Generator Cooling Fan						
....						
Remarks: Please return comments to SSB DFP by 28-June-2007. Refer to LL : https://www.knowledge-epa-tpa.shell.com/glasepa1/livelink.exe?func=ll&objId=6453420&objAction=Open						
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-bottom: 1px solid black;">Issuer Name : Ramakrishnan TG</td> <td style="width: 33%; border-bottom: 1px solid black;">Signature :</td> <td style="width: 33%; border-bottom: 1px solid black;">Acknowledged by :</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Project Manager</td> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> </tr> </table>	Issuer Name : Ramakrishnan TG	Signature :	Acknowledged by :	Project Manager		
Issuer Name : Ramakrishnan TG	Signature :	Acknowledged by :				
Project Manager						

When the distribution of documents has been settled, document controllers lucky enough to have a computerized Engineering Document Control system are able to simply record the details and print the necessary transmittal notes. Those working with manual systems have often to either create letters for each recipient on a word processor, detailing each document, or update distribution sheets and photocopy them for each recipient.

The references that appear on document transmittal notes usually include two numbers. One provides a unique reference, usually a number, that identifies the transmittal - this reference will normally run in sequence 1,2,3 for the whole project and helps the document controller find a particular transmittal, or identify when outbound transmittals may be missing.

The second number is usually unique to the recipient of the transmittal and runs in the same sequence, but two or more recipients may have transmittal no. 86. The recipient's number is intended to help them identify when a transmittal has gone missing - if they received 63 and 64 followed by 66 and 67 they might reason that number 65 has gone astray.

Some systems will generate a third number which is helpful when design teams are reviewing documents. This number would represent a 'batch' of issues, so that for example the architect could discuss documents with the structural engineer and be sure that they were discussing the same transmittal - bearing in mind that the two foregoing numbers will be different on each recipient's transmittal.

When transmittal letters have been printed, it is normal for the document controller to sign them and keep a copy of the signed originals filed by recipient - this makes it possible to find physical copies of the transmittals later, should they be needed.

Part 11 - Reporting Requirements from Engineering Document Control Systems.

Computerized Engineering Document Control systems have one major advantage over manual ones - the ability to extract information in the form of reports.

Document controllers may be asked for a very wide spectrum of reports, but there are three basic ones which cover most everyday situations:

- Lists of incoming documents, their revisions and when they were received.
- Lists of documents and their distribution.
- Lists of recipients and the documents sent to them.

When producing these reports, the document controller will normally be able to focus on particular ranges of documents, dates and recipients so that they can extract only the documents received or issued on a given day (week or month).

Information Management Workshop General Engineering Document Control Knowledge

▼ Electrical							
8474L-000-CN-1621-001	Cable Sizing	0	04-08-2006	IFE	8474L-500-TN-2582	12-08-2006	
8474L-000-CN-1621-001	Cable Sizing Calculation Note	1	28-02-2007	IFE	8474L-500-TN-4883	19-03-2007	
8474L-000-CN-1621-001	Cable Sizing Calculation Note	A	24-02-2006	IFR	8474L-500-TN-1403	18-04-2006	
8474L-000-CN-1626-001	Electrical Load Summary - Substation 1 (22kV)	0	19-04-2007	IFE	8474L-500-TN-5479	09-05-2007	
8474L-000-CN-1626-001	Electrical Load Summary	A	23-01-2006	IFA	8474L-500-TN-0785	14-02-2006	Actual 07-02-2006
8474L-000-CN-1626-002	Electrical Load Summary - Bach Ho Max Distillate Case Study	A	17-04-2006	INF	8474L-500-TN-1412	18-04-2006	
8474L-000-CN-1626-003	Electrical Load Summary - Bach Ho Max Gasoline Case Study	A	17-04-2006	INF	8474L-500-TN-1412	18-04-2006	
8474L-000-CN-1661-001	EMCS I/O Summary List	0	27-07-2006	IFP	8474L-500-TN-2649	16-08-2006	
8474L-000-CN-1661-001	EMCS I/O Summary List	1	04-09-2006	IFE	8474L-500-TN-3064	25-09-2006	
8474L-000-CN-1661-001	EMCS I/O Summary List	2	06-11-2006	IFE	8474L-500-TN-3669	17-11-2006	
8474L-000-CN-1661-001	EMCS I/O Summary List	3	29-12-2006	IFE	8474L-500-TN-4242	10-01-2007	
8474L-000-CN-1661-001	EMCS I/O Summary List	A	15-02-2006	IFI	8474L-500-TN-0836	20-02-2006	
8474L-000-DW-1622-001	Electrical Main Cable Routing Layout Refinery	0	10-08-2006	IFC	8474L-500-TN-2712	22-08-2006	
8474L-000-DW-1622-001	Electrical Main Cable Routing Layout Refinery	1	27-09-2006	IFC	8474L-500-TN-3201	04-10-2006	
8474L-000-DW-1622-001	Electrical Main Cable Routing Layout Refinery	2	30-03-2007	IFC	8474L-500-TN-5045	04-04-2007	
8474L-000-DW-1622-001	Electrical Main Cable Routing Layout Refinery	A	13-03-2006	IFA	8474L-500-TN-1040	20-03-2006	
8474L-000-DW-1652-001	Overall Single Line Diagram	0	08-09-2006	IFC	8474L-500-TN-3159	03-10-2006	
8474L-000-DW-1652-001	Overall Single Line Diagram	1	09-03-2007	IFC	8474L-500-TN-4936	23-03-2007	
8474L-000-DW-1652-001	OVERALL SINGLE LINE DIAGRAM	A	07-10-2005	IDC	8474L-500-TN-0220	10-10-2005	
8474L-000-DW-1652-001	Overall Single Line Diagram	B	23-02-2006	IFA	8474L-500-TN-0890	28-02-2006	
8474L-000-DW-1661-001	Electrical Monitoring & Control System (EMCS) Block Diagram	A	21-04-2006	IFR	8474L-500-TN-1679	18-05-2006	
8474L-000-DW-1662-101	Typical Motor Starter Control (6.6kV)	0	13-02-2007	IFE	8474L-500-TN-4776	10-03-2007	
8474L-000-DW-1662-101	Typical Motor Starter Control (6.6kV)	A	22-12-2005	IFA	8474L-500-TN-0804	14-02-2006	
8474L-000-DW-1662-100	Typical Schematic Diagram 400V	0	13-02-2007	IFE	8474L-500-TN-4776	10-03-2007	
8474L-000-DW-1662-100	Typical Schematic Diagram 400V Cover Shee	A	30-12-2005	IFI	8474L-500-TN-0681	20-01-2006	
8474L-000-DW-1663-001	Typical Protection Diagrams	0	21-11-2006	IFE	8474L-500-TN-3787	28-11-2006	
8474L-000-DW-1663-001	Typical Protection Diagrams	1	16-03-2007	IFE	8474L-500-TN-4978	29-03-2007	
8474L-000-DW-1663-001	TYPICAL PROTECTION DIAGRAMS	A	22-12-2005	IFA	8474L-500-TN-0611	28-12-2005	Actual 18-01-2006
8474L-000-DW-1663-001	Typical Protection Diagrams	B	05-07-2006	IFA	8474L-500-TN-2344	22-07-2006	
8474L-000-DW-1664-001	Typical Wiring Diagram 6.6kV HV Motor	0	06-04-2007	IFE	8474L-500-TN-5254	20-04-2007	
8474L-000-DW-1664-001	Typical Wiring Diagram 6.6kV HV Motor	A	12-01-2007	IFR	8474L-500-TN-4350	22-01-2007	
8474L-000-DW-1664-000	Typical Wiring Diagram	0	17-04-2007	IFE	8474L-500-TN-5306	25-04-2007	
8474L-000-DW-1664-000	Typical Wiring Diagram	A	24-01-2007	IFR	8474L-500-TN-4472	02-02-2007	
8474L-000-ITP-1620-001	ITP for Small Power Materials	A	21-11-2006	IFI	8474L-500-TN-4040	21-12-2006	Due 11-01-2007

Conversely, documents which originate from Works Contractors are often circulated around the Design Team for comment or approval - before being returned to the originator (this section of the Engineering Document Control process is normally called 'Approvals' or 'Design Review').