## 1. Purpose of this Standard

The purpose of this standard is to ensure that the correct information is requested from a supplier of a part or fabricated item, the expectations are set out clearly, and that the data submitted is processed appropriately.

## 2. Risks of non-compliance

The risks of not complying with this standard include:

- Complete data set not created at the supplier level
- Data not being submitted, or submitted to the incorrect channel
- Data not going through the review process
- Instructions on change or approval not returning to supplier
- Supplier data not escalated to construction crews, facility operators, or maintenance personnel
- Poorly designed or improperly working equipment
- Late shipments due to slow review turnaround or poor/lack of expediting
- Damaged goods due to lack of care and preservation at site before installation
- Liability concerns in regards to design instructions and delivery timing
- Schedule impacts to Turnover for Commissioning, due to lack of supporting documentation

## 3. Overview

Regardless of if a contractor is purchasing on behalf of a client, or if the asset owner is purchasing, or a supplier is purchasing from a sub-vendor, when any piece of equipment, material, fabricated skid, or off the shelf part is purchased, there are always drawings and / or documents that the Vendor / Fabricator submits.

This data needs to be requested, submitted, reviewed, approved, and integrated into the design information packages, the operations and maintenance manuals, or the quality manuals.

For example, when an individual purchases a new dishwasher for a unit, there is information required for the following:

- Parts shipped with the unit
- Material Safety Data Sheets
- Installation instructions
- Maintenance and repair instructions
- Operating instructions
- Help line and/or spare parts information

This is a simple example where the manufacturer did not rely on the owner of the unit for design input, and the output of data is logical. If the order is more complicated or unique, specific data is required and must clearly be outlined at the beginning of an order.

## 4. Setting data submission expectations

The creation of a Documentation and Data Requirements form (DDR) is required to set the expectations for the supplier. Expectations must be reasonable to avoid excess work by the supplier, or increased costs on an order.

The DDR must encompass the following elements, at a minimum:

- Contact details of recipient
- Transmittal and communication requirements
- Format of submissions (hard copy, PDF, modifiable, authenticated, etc.)
- Timing of submissions (with bid, for review/approval *n units of time* after purchase order, before shipment, with shipment, post shipment, etc.)
- Which documentation and data types are required (types of drawings for example)
- Applicable coding instructions for labeling each file in a submission

Each unique item requires its own drawing or document submission. This may or may not be a template, but item specific templates are highly recommended to ensure consistency and reduce the need for senior staff to complete the requested items each order.

If a supplier does not receive a DDR, they are to submit a pre-established standard of typical documentation and data files to the purchaser's Document Control for review and acceptance.

Any disagreements or discrepancies in the DDR must be documented and communicated by both the purchasing organization and the supplier, and a consensus must be reached prior to purchase order or contract.

**5. Submitting the data**

Suppliers must ensure that all requested documentation and data files are submitted to the purchasing organization, and that all instructions are followed.

If errors are found by the Document Control group at the supplier or at the purchasing organization, those errors must be corrected before the data enters the prescribed workflow.

Files pertaining to multiple identical items must be processed, filed, and indexed only once, indicating the multiple item tags or IDs in the metadata.

All incoming supplier documentation must be reviewed by the responsible content expert, including documentation submitted for information only.

Submissions should always be accompanied by a transmittal clearly stating all items, and comments about the items. (See section on Transmittal in DMC-DM-STD-011).

**6. Data reviews/Squad Checks**

The documentation or data reviews can be performed internally only, or encompassing external input as well.

Each review must be accompanied by a Squad Check Review form, which is similar to a transmittal in that each individual file is listed with associated information on each file. In using a Squad Check Review form, a Transmittal is not required for reviews.

A Squad Check review form must contain the following elements, at a minimum:

- A unique Squad Check Review number
- The sender's information
- The reviewer's information

- The date of the Squad Check
- The due date for markups
- A list of each individual file
    - The name of the file
    - The number of the file
    - The issue stage/status of the file
    - Any alternative identification number
- The details of the purpose of the review (project, activity, purchase order, supplier name, etc.)
- Any additional notes or instructions to the reviewer(s)
- An area for each reviewer to initial/sign off on the review

Priorities should be set for each review as follows:

- Priority 1: Turnaround for review is < 3 days
- Priority 2: Turnaround for review is 5 to 10 working days, or longer for complex packages
- Priority 3: Turnaround for review is not a priority, but must be completed within two months, or by the date the data is required for use, whichever comes sooner

The above timeframes are guidelines. Exact timeframes for each review must be communicated within a Squad Check Review form.

Caution needs to be taken to ensure that reviews are done within the timeframe that is needed by those who will be using the markups.

The following review types are acceptable, as standalone, or in varying combinations:

- Central Squad Check

  Central Squad Checks require hard copies of documentation to be placed in a physical location for reviewers to physically go to. Only one hard copy is permitted. If multiple markups are created of the same document or drawing, a technical expert is required to merge the markups.

- Electronic Squad Check

  Electronic files are reviewed and marked up using any variety of software application, and returned to the Document Controller. If multiple markups are created of the same document or drawing, a technical expert is required to merge the markups.

- Circulated Squad Check

  A circulated Squad Check is when documentation is handed from one reviewer to the next until all those required have reviewed the package and it goes back to the Responsible Person.

## 7. Internal Tracking Methods

A unique internal tracking number is to be assigned to all submissions. All incoming documentation and data files must be logged and tracked as individual entities. Submission packages that contain multiple drawings and documents are to be split out into individual files.

Attention must be given to ensure that resubmissions of the same file are noted, and that the file is versioned and not given a new tracking number.

## 8. Vendor Statuses and Assigning Statuses

For supplier submissions there are five statuses. It is the responsibility of the technical expert to allocate a status to each file based on the quality and completeness of the content. Each file should have a rubber or electronic stamp with room for the internal tracking number, the different statuses for the technical expert to check his/her selection, and an area for the technical expert's signature and date of signing.

**"Correct and Resubmit, Work may Proceed".** This means that the supplier/fabricator can continue along the work order schedule; order parts, assembly, welding, etc. If there are any changes indicated on the documentation sent back, they have to take those changes into consideration when proceeding, and must incorporate those changes into their next submission.

**"Correct and Resubmit, Work may NOT Proceed".** When a file is submitted and content is unacceptable, the technical expert can enter this status. This means that the submission is profoundly sub-par. The supplier has to revisit the specifications and requirements and resubmit the file. This is an urgent fix that requires a tight turnaround time.

**"Accepted for Construction"** means that they can put the equipment or part in the shop's line to be completed. There may or may not be any markups of these drawings. Final versions of the documentation can now be submitted at order closeout.

**"Accepted as Final Submission".** This status is to identify that the lifecycle of that particular file is over, and that Document Controllers can use those submissions in the Record/Data Books.

**"Received as Information Only".** Receiving for information only does not mean that it has been received, but that it has been received according to the expectations previously established.

Each file is to be given its own status. One status should not be given to an entire package consisting of multiple individual files.

Each file's status must be clearly communicated back to the supplier to ensure they understand change and resubmission expectations.

## 9. Versioning of Supplier Submissions

Document Control needs to consider each time they receive a submission from any party as a new version. This includes the submissions that the reviewers return to them.

Each version supersedes the previous, and becomes the new current copy. Therefore the first version is the submission from the supplier/manufacturer (considered a clean copy), the second version is that same drawing or document that has the reviewer's markups on (marked up copy). As an overall picture, it has changed and is therefore the new current copy until the supplier submits a new copy that has the changes incorporated into it.

There may be different distribution requirements (see section on Distribution in DMC-DM-STD-011) for both the clean copy and the marked up copy.

## 10. Reporting

Document Control will often be called on to provide regular reporting regarding the status of Incoming Supplier Documentation and Data. Typically, this will be a status on the % complete of expected documents in relation to the schedule.

Tracking KPI's should be agreed upon at the beginning of the project and all control parameters / systems should facilitate such reporting.