CQMS-MetricStream Functional Overview

non-conformance
- Initiate
- Validate

corrective action
- Initiate
- Respond
- Approve
- Monitor

Material Non-Conformance
- Initiate
- Validate
- Disposition
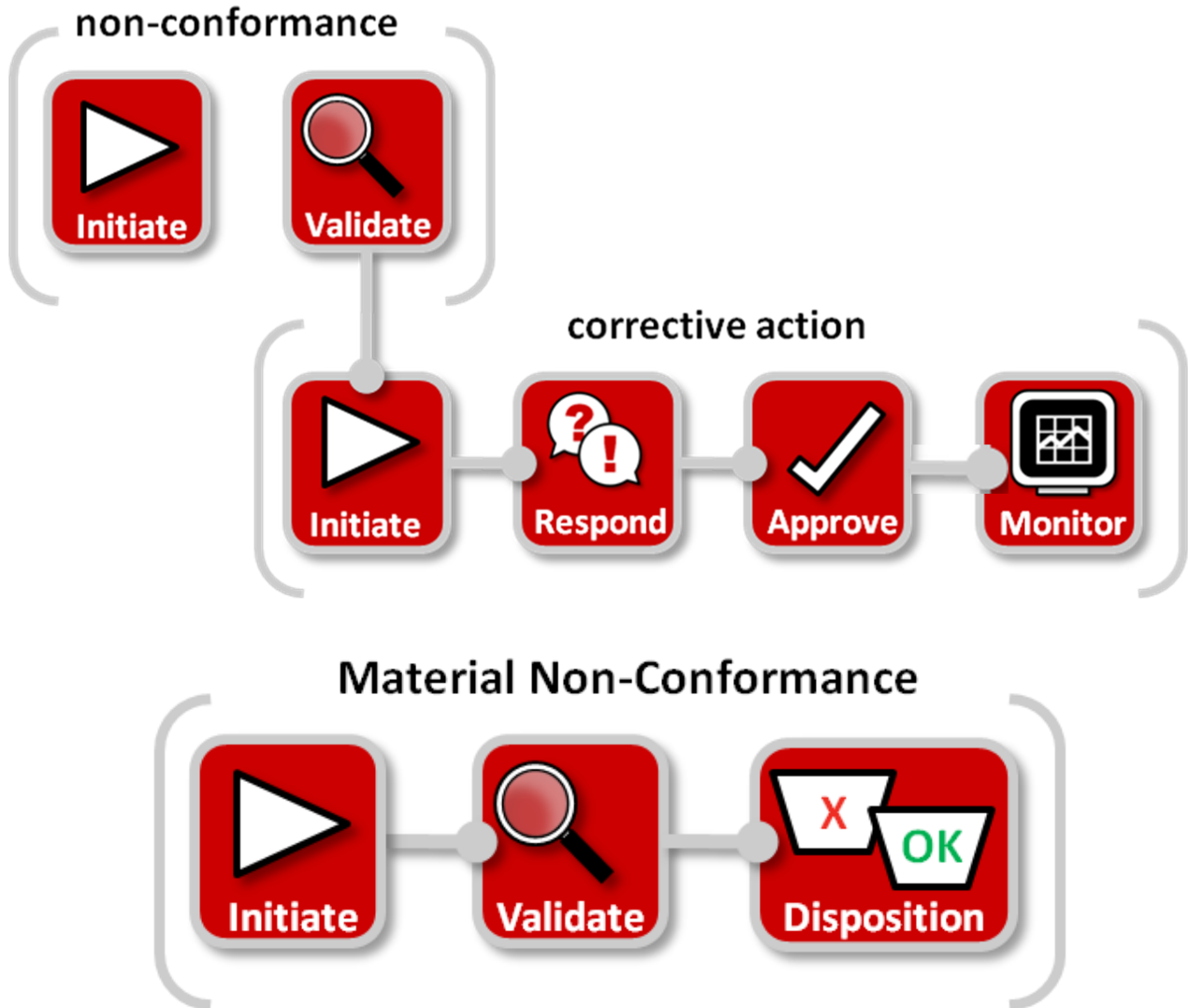
In CQMS-MetricStream a material defect is recorded as a Material Non-Conformance (MNC).

Unless your site is using a Manufacturing Execution System (MES), which initiates MNCs automatically, you'll need to initiate your MNC by going to the MNC/PNC tab and using the *My Forms* area:

Click here to begin

MNC/PNC

My Forms

Initiate Material Non-Conformance

Initiate a Material Non-Conformance

Whether your role is an MNC Initiator or an MNC Approver, you will use the same Initiate Material Non-Conformance form as seen here:

If you are an MNC Approver who is not initiating an MNC but instead you are validating either some other MNC Initiator's work or an MES-generated MNC, you'll learn about that later on. For now, we're just looking at initiating.

Let's take a closer look at each step...

Step A

Notes:

The *MNC Initiated On* field displays the date and time when you opened this form.

The *Issue Occurred On* field shows the actual date that the non-conformance occurred. It defaults to the current date but can be changed to an earlier date if applicable.

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Step A: General Information

Issue ID	Source Reference #	Issue Type*
		In-Process Issue

Organization Level*	Organization Name*	Issue Found In*
Sites	JEP	Production

Priority Code*	MNC Initiated On	MNC Initiated By
Medium	01-Feb-2016 01:37 AM	Nidhi Tripathi

Department/Team Issue Found By*	Department/Team Issue Caused By*	Contacted By Supplier?(ANCMR)
MSB - LEAK TEST	TM# 515 - HEADLINE	No, counts against PPM

Issue Occurred On*	Shift*	CC List
day 01 / mo. Feb / year 2016	Third	Cummins Address Book

Customer Name	Customer Issue#
Search by Customer Name or Location %%	
Select Customer	

General Information
Purpose: Record "Who, When and Where" details about the MNC.

Selection of a *Customer Name* is optional, but if you have that information, it is a good practice to fill it out. Remember that anyone you choose for the *CC List* must be a MetricStream user with permission to view your site's data.

The *Contacted By Supplier? (ANCMR)* field is optional for MNC Initiators (shown above) but is mandatory for MNC Approvers.

Step B

Notes:

The optional *Serial #* field is used to identify the component serial number.

For assembled parts, such as an engine, record the engine serial number in the optional *Assembly Serial #* field.

Multiple serial numbers can be entered with a comma separator.

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Step B: Part Information

Part#*	Part Description	Rev Level
Search By Part Description or Part Number %%		
Select Part#		
436575200	FLYWHEEL	0

Commodity	Suspect Qty*	Lot Qty
C-Case	101	

Lot#	Unit of Measure	Serial#

Assembly Serial#	Product Line	Model#
	Flywheel Housing	ISX 07

Supplier Part#	Supplier PO#	Supplier Part Rev Level

Customer Part#	Customer PO#	Customer Part Rev Level

Receipt#	Packing Slip#	Cummins Order#

Part Information
Purpose: Identify the non-conforming part and suspect quantity defective and provide any applicable information that further identifies the non-conforming part such as Lot #, Lot Qty, Serial #, etc.

Once the *Part #* is selected, the *Part Description* will populate automatically (although it may take a moment). *Rev Level* and *Unit of Measure* will also populate if the information is available in your site's Part Master.

✔ *All parts come from and are stored in your Part Master System, not CQMS-MetricStream.*

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Step C

Notes:

Issue Responsibility can be one of four values:

Internal = Within the Plant

External Supplier = Third Party Supplier

Internal Supplier = Other Cummins Plant

Offsite Cummins Group = Supporting group such as Purchasing

Organization =Plant within the selected Business Unit.

Supplier Contacts come from the Cummins Supplier Portal system/ SIM, not CQMS-MetricStream.

If no Supplier Contacts are available to choose, contact the Corp / Purchasing SQIE for the supplier so they can start the registration process.

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Issue Responsibility

Purpose: Determine the responsible party and who should be notified.

Note that if you select *"Offsite Cummins Group"*, *"External Supplier"*, or *"Internal Supplier"* then additional fields appear as seen above (some are required). Only *External Supplier* is shown because *Internal Supplier* shows the exact same fields.

MNC Approvers see this same section a little differently. First, *Supplier Contacts* and *Corp/Purchasing SQIE* are mandatory. Second, a new *Waiver* field appears, and if *Issue Responsibility* is an External or Internal Supplier, two new RMA fields also appear:

MNC Approvers who choose **Yes** for *Waiver Requested?* see additional fields:

**Additional information about Waivers can be found in the Waiver course

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Step D

Notes:

Defect Code and *Level 3 Classification* fields have values that your site controls (your site can change these values).

Level 1 Classification and *Level 2 Classification* have values that Cummins Corporate Quality controls.

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Step D: Defect Classification

Defect Code

BF   Click here for Top Down approach

Level 1 Classification	Level 2 Classification	Level 3 Classification
Engine Test Performance	Low BSFC - Engine Test Performance	JEP - BF

Defect Classification

Purpose: Record "What" information about the MNC using standard codes for your site and using standard codes for Cummins Corporate Quality.

Defect Code is a mandatory field for MNC Approvers (pictured above) but is optional for MNC Initiators. Normally, you select the *Defect Code* field first, and the system automatically populates the *Level 1 Classification*, *Level 2 Classification*, and the *Level 3 Classification* fields for you. This is called the "bottom up" approach and it is how Step D works by default.

If you click on the link that says Click here for Top Down approach, Step D will change to this (again, this is the MNC Approver's point of view — MNC Initiators don't see these as mandatory fields):

Step D: Defect Classification

Level 1 Classification	Level 2 Classification	Level 3 Classification
Engine Test Performance	Rough Shutdown - Engine Te:	JEP - ET

Defect Code

ET   Click here for Buttom Up approach

Now, you will choose a *Level 1 Classification*, and then based on your selection, you will choose a narrowed-down *Level 2 Classification*. Then based on your *Level 2* choice, you will select a narrowed down Level 3 which will automatically populate a Defect Code.

Step E

Notes:

Remember to record only factual information. Many people both inside and outside Cummins can view what you write.

Also, remember to be concise but at the same time complete.

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Step E: Issue Details

Issue Details*

Test
Test

(10/4000)

Requirement/Specification*	Actual Observation/Measurement*	How Verified?*
Test	Test	Test

Issue Details

Purpose: Record detailed information about the non-conformance using free text so that you can be as detailed as you need to be.

The *Issue Details* field in particular is very important because several months or even years later when people run a search report, they may be successful in looking for certain key words that you put in this field.

Step F

Notes:

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Step F: Initial Sorting / Rework

Sorting Required?

Select One �

Initial Sorting / Rework
Purpose: Optionally identify if parts have already been sorted.

If you choose **Yes** for *Sorting Required?*, two mandatory fields appear:

Step F: Initial Sorting / Rework		
Sorting Required?	Sorting*	Sorting Criteria*
Yes	Plant Sorting	Test Test
		(10/4000)

Step G

Notes:

The *Recurrence?* field, which only MNC Approvers can see, is a system-generated field that cannot be edited.

Although you are responsible for the *Repeat Issue?* field, the application also does some searching "behind the scenes" to see if there might be a repeat issue. If it discovers a possible repeat, it will show up here.

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Step G: Identify Prior Issues (Pending)

Repeat Issue?*
Select One ▼

Identify Prior Issues
Purpose: Identify other repeat MNCs that are present in CQMS-MetricStream.

If you choose Yes, then you must use the Search Prior MNCs report (which launches when you click the **Search Prior MNCs** button) to select the Issue ID or Multiple Issue IDs that this non-conformance is a repeat of:

Step G: Identify Prior Issues (Pending)		
Repeat Issue?*		Prior MNCs*
Yes	Search Prior MNCs	

After you make your selection(s), the Issue ID or Multiple Issue IDs will appear in the mandatory *Prior MNCs* field. Note that you cannot type in this field — you must use Search Prior MNCs.

For an MNC Approver, an additional field appears in Step G called *Recurrence?* as seen here:

Step G: Identify Prior Issues (Pending)		
Repeat Issue?*		
Select One ▼		
Recurrence?		

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Step H

Notes:

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Step H: Cost of Poor Quality

Individual Part Cost

Currency	Debit Memo #	Total Cost		
USD		0.00		

Repair Cost	Admin Cost	Freight Cost	Rework Cost	Scrap Cost
0.00	0.00	0.00	0.00	0.00

Cost of Poor Quality

Purpose: Document the cost of poor quality for financial purposes (this step is not visible to MNC Initiator Role).

Remember that this section is not linked to your site's financial databases or systems. It is simply a place to record this information when it is related to the non-conformance.

Complete Initiation

Notes:

If you click on the *Action Assigned To* pop-up icon intending to add some of the people for the next step of the workflow, you'll need to be careful:

First, you must have at least one person selected because this is a required field.

Second, if there are multiple pages in the pop-up window, you'll need to use the **Select All** button on each and every page, not just the first page.

Also, remember that you may use the *Attachments* section and the *General Comments* section as needed.

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MNC - Take Action

Action Type*	Action Type Comments	Action Assigned To*
Initiate MNC		Ameya K Godambe,Brent A Ball,Br

Submit · Save and Continue · Save and Exit · Exit

MNC — Take Action

Purpose: For MNC Initiators, submit your work to one or more MNC Approvers to validate your work (shown above) by clicking on the **Submit** button. For MNC Approvers, submit your work to one or more MRB Reviewers for part dispositioning and completion of the MNC (shown below) in the same way.

MNC - Take Action

Approver Due Date

Action Type*	Action Type Comments	Action Assigned To*
Approve MNC		Brian L Landy,Jacob Kelley

Submit · Save and Continue · Save and Exit · Exit

Notice that in either case, there is only one Greyed Out *Action Type* available. MNC Initiators must select which approvers to send the MNC onto for validation from the Action Assigned to Field. Only one of them needs to do the work, but they all get a chance until one of them validates and sends it on to MRB review.

For MNC Approvers, the same is true. The MNC will go to underlined selected MRB Reviewers at your site.

Once you click the **Submit** button, a confirmation screen appears that will look similar to this. Note that you can optionally print an MNC Label from this screen (only some sites use this functionality).

**If you do not see the Issue ID / Item ID in blue, click on the Refresh button.**

Issue ID   2016-JEP-MNC-00000174   has been processed.

Continue   Refresh   Print MNC Label

When you click on the **Continue** button, the MNC/PNC main navigation tab will appear. The MNC you just created will appear as a new row in the *My Related Issues* area. If you are an MNC Initiator, then the next step in the workflow is to have an MNC Approver validate your work:

Material Non-Conformance

Initiate — Validate — Disposition
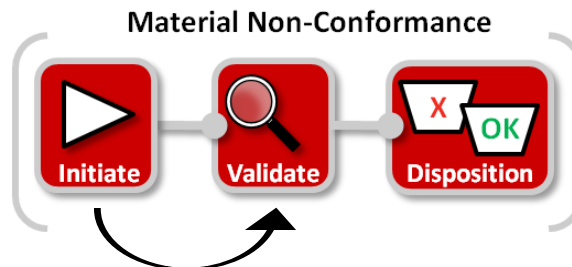
If you are an MNC Approver, then the next step in the workflow after initiating your MNC is to have an MRB Reviewer complete the MNC by dispositioning the parts. In other words, you skip the Validation step:
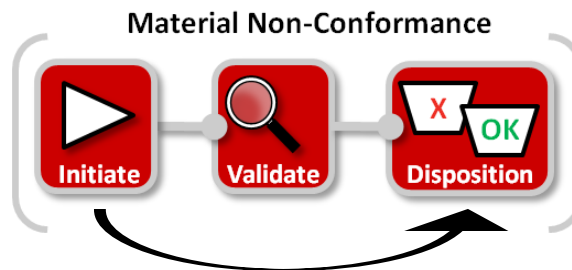
Material Non-Conformance

Initiate — Validate — Disposition

This completes your work for initiating a Material Non-Conformance.

As an MNC Initiator, after you send your MNC on to be validated, the Current Status column of the My Related Issues area will now display **MNC Initiated** as shown below:

As an MNC Approver, after you send your MNC on to be reviewed at MRB, the Current Status column of the My Related Issues area will now display **Assigned for MRB Review** as shown below:

Validate a Material Non-Conformance

As an MNC Approver, you have the ability to initiate an MNC and validate it in one step as you've seen above. However, you may also have the responsibility to validate an MNC that you did not create. For example, perhaps an MNC Initiator has selected you as an MNC Approver or maybe your site's MES system has automatically created an MNC.
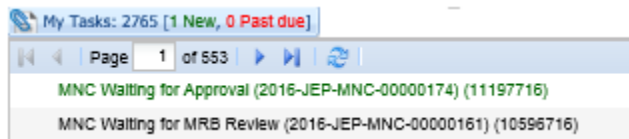
In either case, you will see your new assignment to validate (along with your other older assignments) in two places. First, in the *My Assignments* area of the MNC/PNC tab as seen here. In this case, clicking on the link will launch the MNC form so that you can begin your work.

Of...	Task	Category	Assigned By	Reassigned By	Created On	Status	Action
1	MNC Waiting for Approval (2016-JEP-MNC-00000174) (11197716)	Assets	Nidhi Tripathi	SYSTEM	02/01/2016 04:01 PM	Started Work	
2	MNC Waiting for MRB Review (2016-JEP-MNC-00000161) (10596716)	Assets	Brian Landy	SYSTEM	01/22/2016 11:04 AM	Started Work	

Second, in the *My Related Issues* area, underneath *My Assignments*. In this case, clicking on the **MNC Initiated** link will launch the MNC form.

Issue ID	Source Ref #	Initiated On	Part #	Part Description	Department	Current Status	Issue Details	Defect Code	Supplier	Supplier_Status
2016-JEP-MNC-00000174		01-Feb-2016	EG0817600	PANEL ENGINE INSTRUMENT	TM# 503 - BLOCKLINE	MNC Initiated	t	-		
2016-JEP-MNC-00000161		22-Jan-2016	555555	TESTING	TM# 516 - ISX CAMLINE	Assigned for MRB Review	fsd	AL		
2016-JEP-MNC-00000131	MES-JEP-99999999	08-Jan-2016	495254000	PAN OIL TLA		MNC Initiated	MISASSEMBLED-A EXCESS WELD AT C/S HOLE	MA-A		
2016-JEP-MNC-00000123	MES-JEP-201617	08-Jan-2016	368262700	PULLEY CRANKSHAFT	TM# 511 - ISM CAMLINE	Assigned for MRB Review	COSMETICALLY UNACCEPTABLE-A APPEARS TO HAVE RESIDUE FROM MACHINING PROCESS UNDER THE PAINT	BC	A J ROSE MANUFACTURING 063613	Supplier Response Requested
2016-JEP-MNC-00000122	MES-JEP-0801201611	08-Jan-2016	368262700	PULLEY CRANKSHAFT	TEST	Assigned for MRB Review	COSMETICALLY UNACCEPTABLE-A APPEARS TO HAVE RESIDUE FROM MACHINING PROCESS UNDER	BC	A J ROSE MANUFACTURING 063613	Supplier Response Requested

Third, in the *My Tasks*, at the very top of the page . In this case while you are pointing to *My Tasks* hyperlink, will list all your Assignments and Clicking on Assignment link will launch the MNC form.

My Tasks: 2765 [1 New, 0 Past due]

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MNC Waiting for Approval (2016-JEP-MNC-00000174) (11197716)

MNC Waiting for MRB Review (2016-JEP-MNC-00000161) (10596716)

It doesn't matter which method you use — they both launch the same form. **Once you see the form, your responsibility is to review the material, update fields with new or corrected information if necessary, and then Submit the appropriate *Action Type*.** Remember that some fields on this form are not mandatory (or even visible, like *Waiver*) for the MNC Initiator but they are for MNC Approvers. Therefore, you will notice some mandatory fields that you need to fill in before taking action.

Select one... ▼
Select one...
Approve MNC
Reject MNC
Cancel MNC

You have three choices when validating: Approve MNC, Reject MNC, and Cancel MNC.
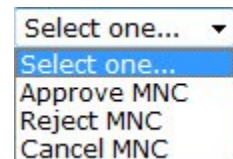
• **Approve MNC** moves the workflow assignment to the MRB Reviewer(s) selected.

• **Reject MNC** requires *Action Type Comments* and moves the workflow assignment back to the MNC Initiator. The assignment will appear in the Initiator's *My Assignments* area and also appear in the Initiator's *My Related Issues* area with a **Current Status** of **MNC Rejected**. Note that if the MNC was generated by an MES system, this **Reject MNC** *Action Type* will not exist.

• **Cancel MNC** requires Action Type Comments and ends the workflow.

For additional help, visit the CQMS Metric Stream Community on Cummins Connect by clicking on the link below:

https://connect.cummins.com/communities/community/cqmsmetricstream