Work Instruction

MES-NC OASIS Training (SMRRs)

MES-NC

Purpose

Use this procedure to submit an electronic nonconformance document.

Trigger

Perform this procedure when a nonconformance requires Sentinel Space Systems Program MRB disposition.

Prerequisites

OASIS user name and password with access to MES-NC

Menu Path

- OASIS; Manufacturing Execution System - NonConformance (MES-NC).

Application

MES-NC

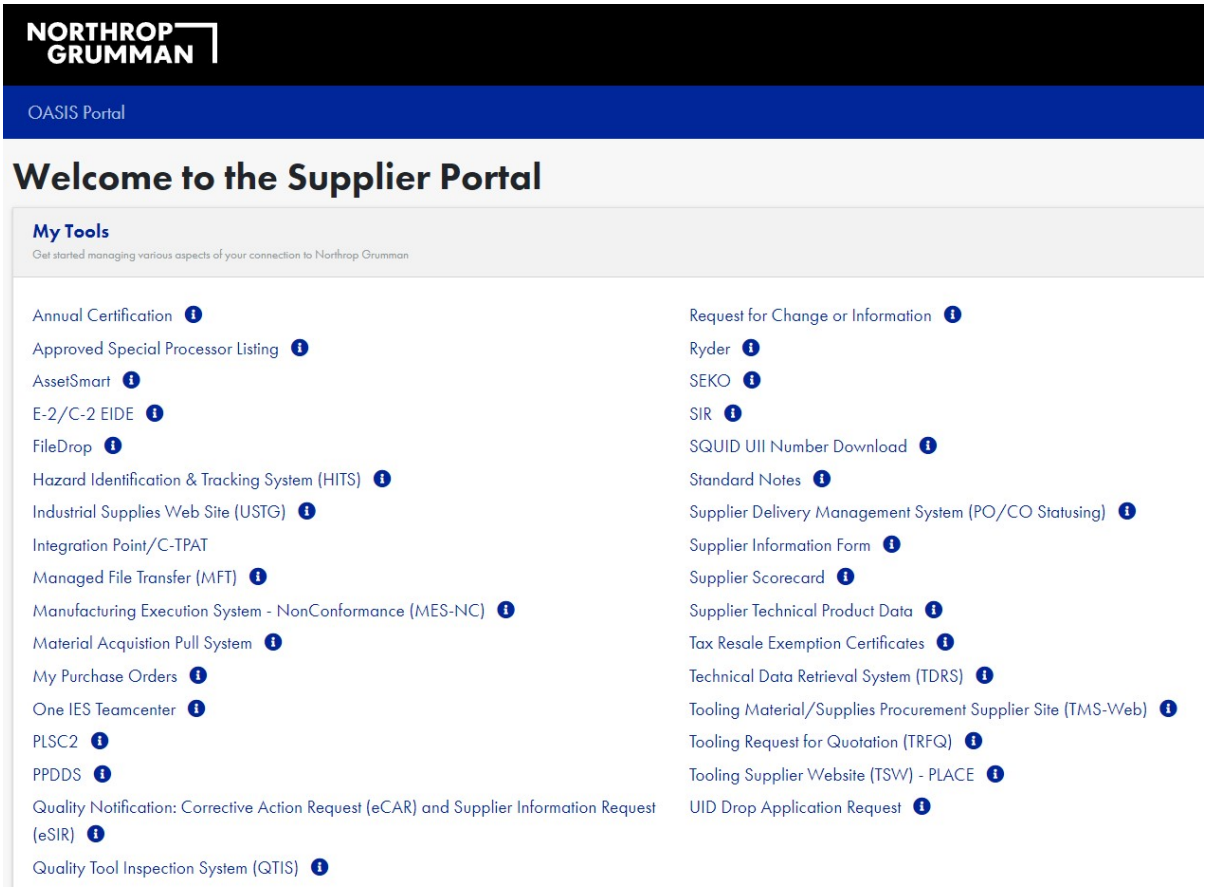
Helpful Hints

For questions on usage, please contact **MESNCOASISTagCreationSentinel@ngc.com**
or contact your Northrop Grumman Buyer

Procedure

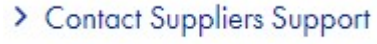
1. Start the process by selecting “Log In” from the OASIS homepage. Enter your user name and password.

MyOASIS login

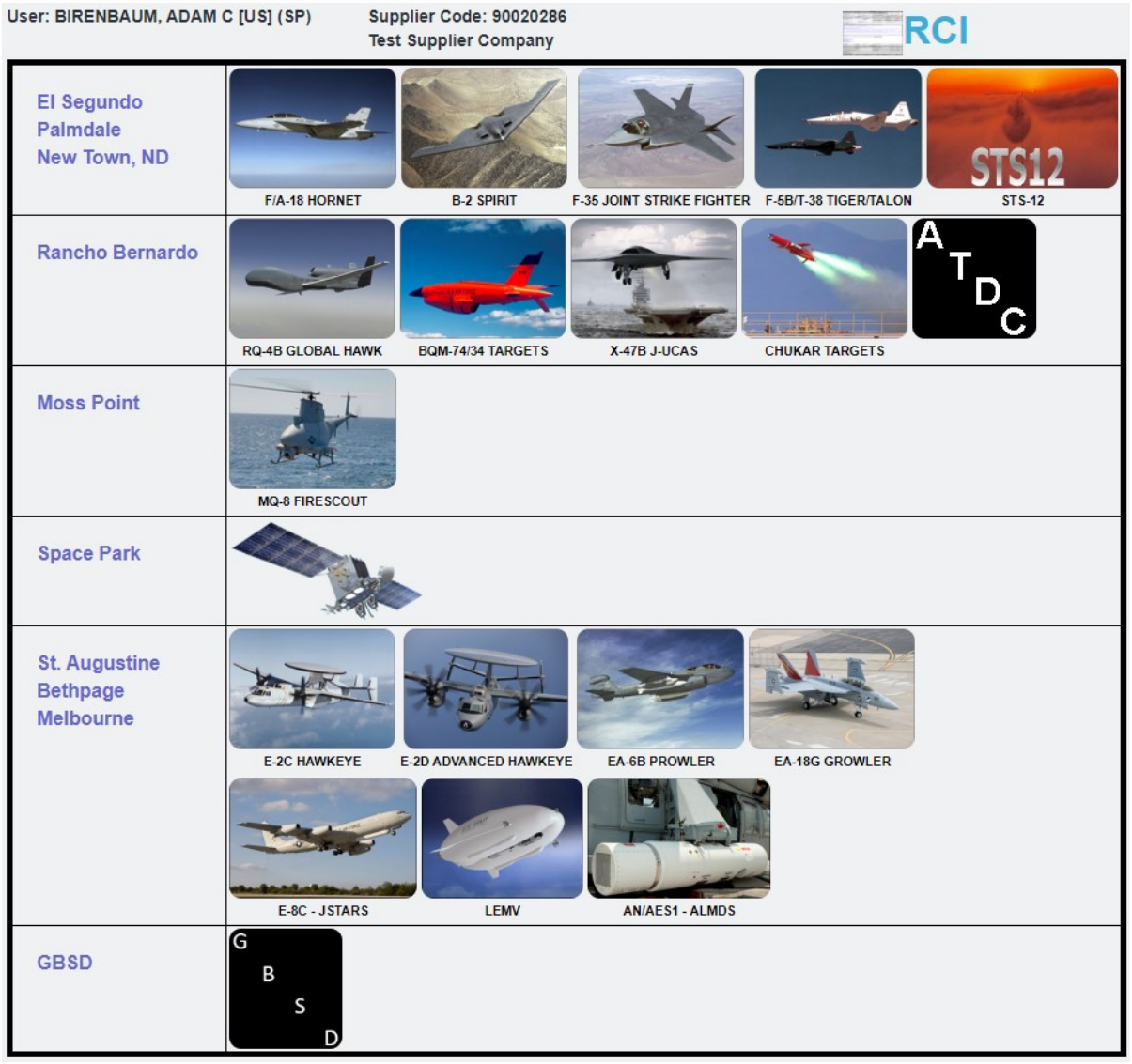


This screen requires a MyOASIS User Name and Password. If you do not have one or yours is not working, please contact the appropriate person by clicking on this button from the OASIS homepage.

Contact button



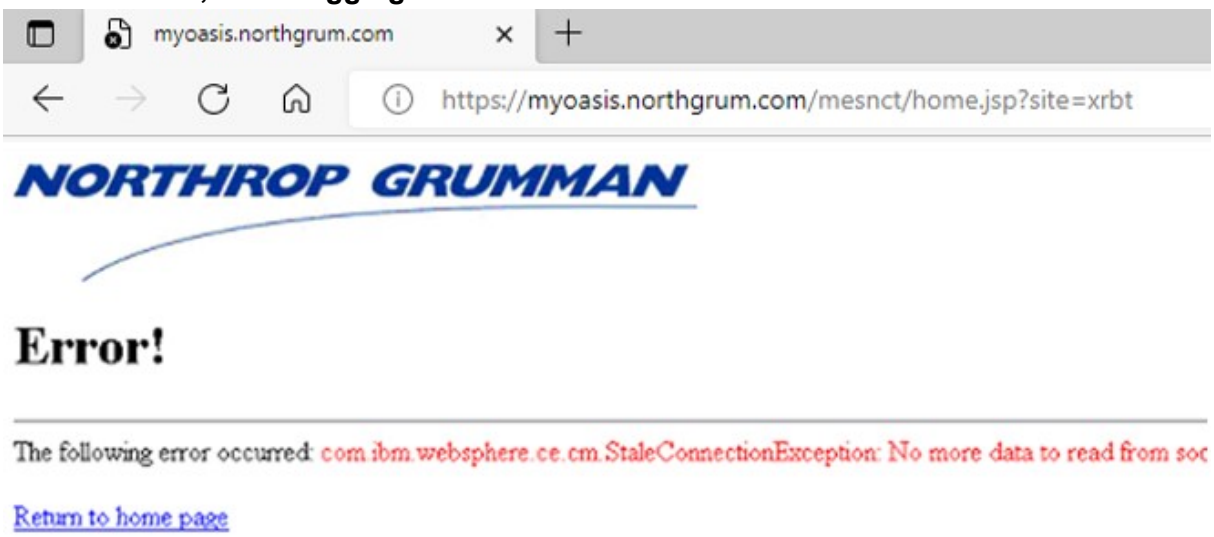
MES NC Home Page



2. Select the Site based on product.

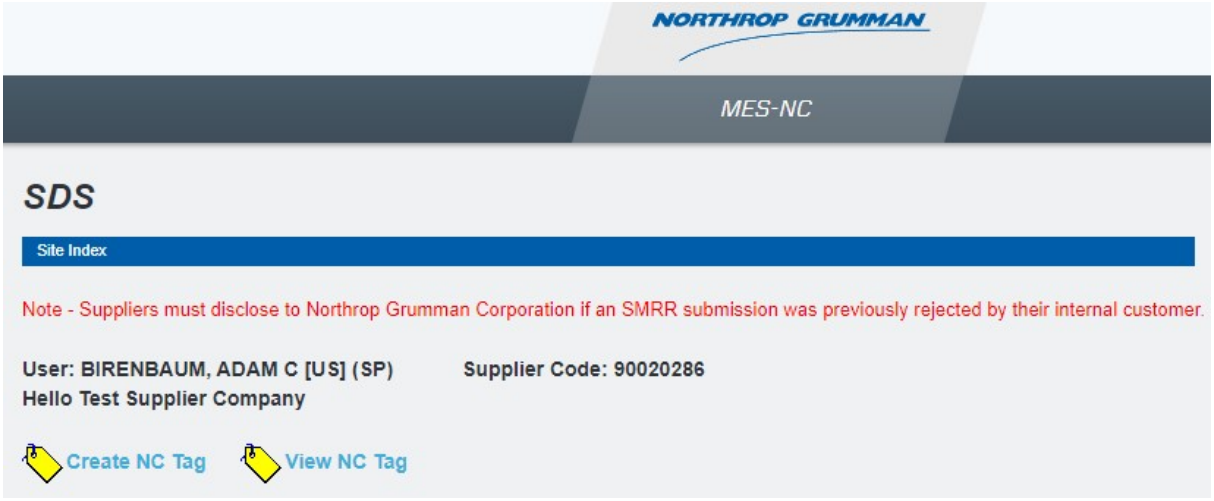
Product and Site can be determined by locating the Project ID on the NGSP PO line item, and then looking it up on the Definitions and Project ID document on OASIS.

Possible error, when logging in



If the above error is encountered, click on the refresh icon and it will load.

MES NC Home Page



3. Select **Create NC Tag** to initiate a tag or **View Existing Tag** to see previously submitted tags.

The following steps have tables with a column titled **'R/O/C'**. The definitions are:

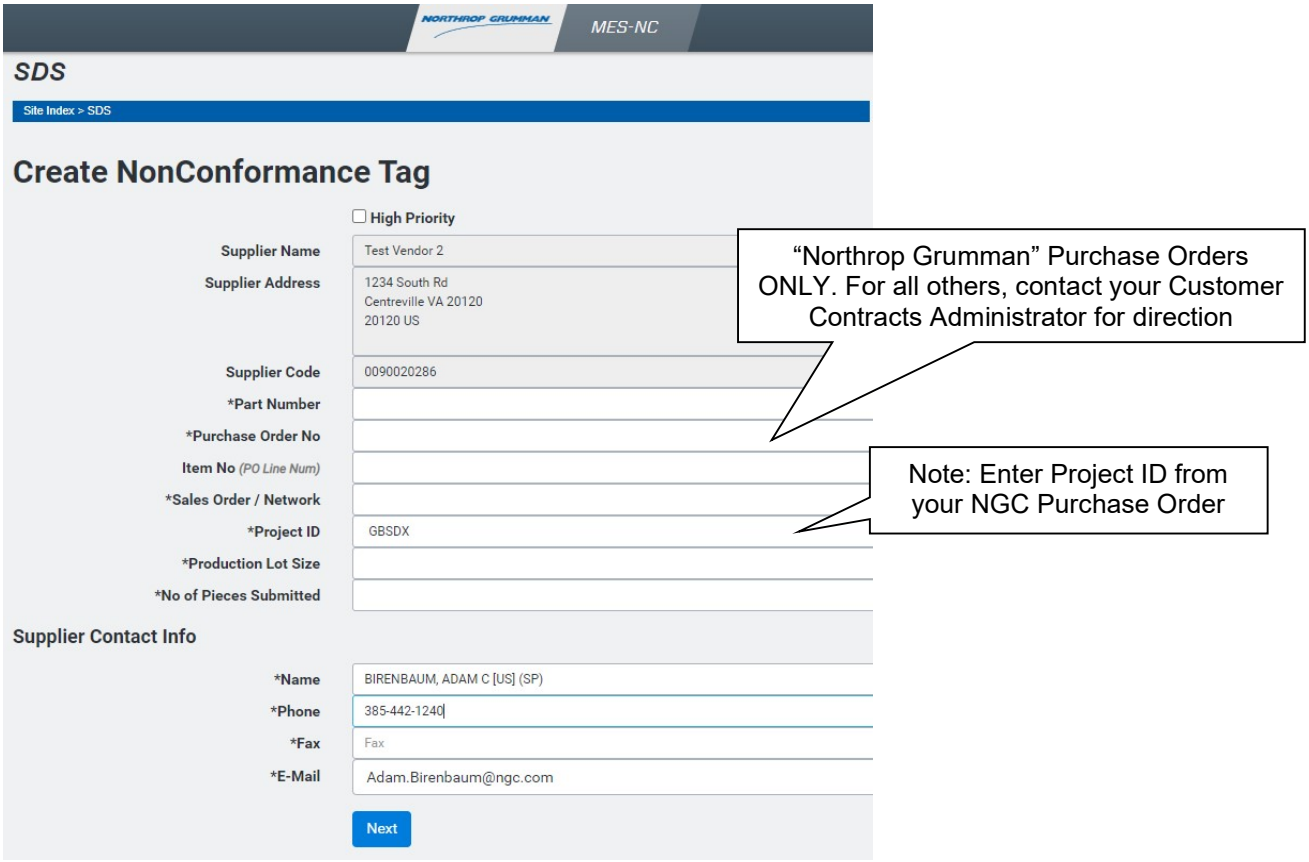
R = Required

O = Optional

C = Conditional

Additionally, all required fields are identified with an asterisk on the screen

Create Non Conformance Tag -



4. As required, complete the following required fields:

Field Name	R/O/C	Description
Part Number	R	Enter the SP Part Number from the PO. **Example:** K0323NP123456-1234 **Note: PO part number may be substituted with <u>detailed part</u> number with MRB Chair authorization. Contact your Northrop Grumman Supplier Quality Engineer to obtain MRB Chair authorization.**
PO Number	R	Enter the SP PO Number. **Example:** 12345678 **Note:** "Northrop Grumman" Purchase Orders ONLY. For all others, contact your Customer Contracts Administrator for direction.

Field Name	R/O/C	Description
Item No (PO Line Num)	R	Enter the PO Line Item number **Example:** 1

PO view of Sales Order/ Network

Item	Material/Description	Contract Delivery Date	Quantity	UM	Net Price	Extended Amount
1	K0323NP123456-1234 SHIM		0	EA	127.50	765.00

Priority Rating: DOA1

Shipping Instructions: SCATS

Material Revision Level: K0323NP123456-1234, B01

SQAR CODE:
E

MATERIAL TEXT:
Go to OASIS and Retrieve the Appropriate Technical Data Package (TDP)

PROJECT ID: GBSDX - GBSD

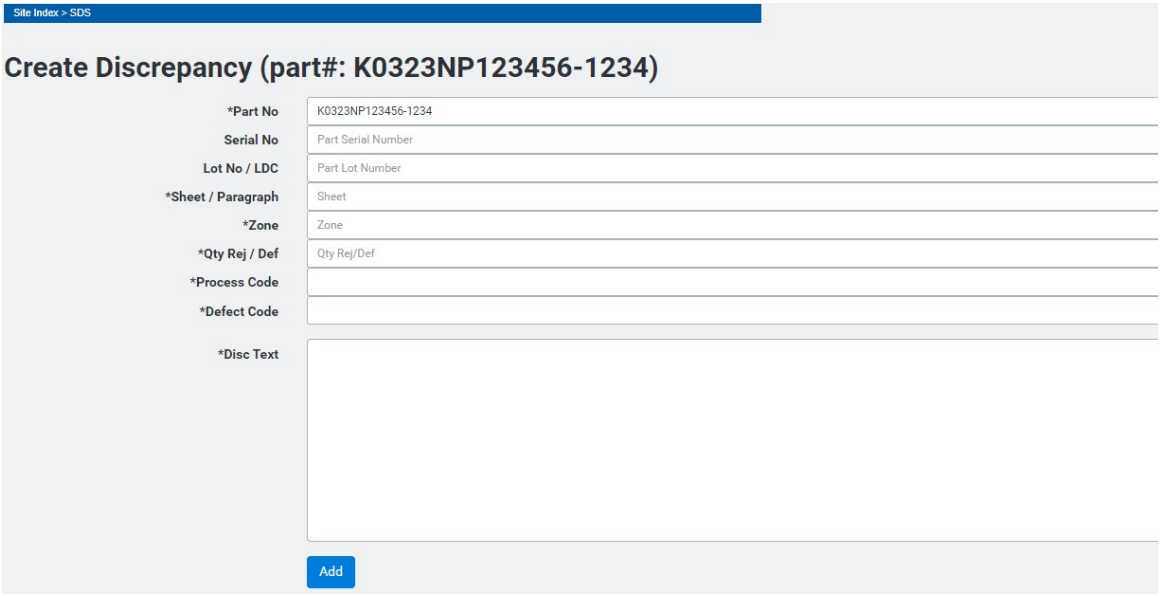
US Government Prime Contract Number: N00019-13-C-9999

CHARGE NUMBER TEXT:
CONTRACT:N00019-13-C-9999
NETWORK:KB2260701
ACTIVITY:3360
QUANTITY: 1.000
CONTRACT:N00019-13-C-9999

Sales Order/ Network (Go Num) Network	R	Enter the Network from the PO line item (see picture above, underlined in red) Example: **KB2260701**
Project ID	R	Select the Project ID from PO (see picture above) Example: **GBSDX**
Production Lot Size	R	Enter the number of parts on the shop order or your lot size Example: **1**
No. of Pieces Submitted	R	Enter the total quantity of discrepant parts being submitted for NGSP Material Review Example: **1**

Supplier Contact Info		
Name	R	Enter the name of person to contact if there is a question from NGSP MRB Example: **John Smith**
Phone	R	Enter the phone number of person to contact if there is a question from NGSP MRB Example: **(999) 999-9999**
Fax	R	Enter the FAX number of person to contact if there is a question from NGSP MRB or if documents need to be transmitted Example: **(888) 888-8888**
E-Mail	R	Enter the email of person to contact if there is a question from NGSP MRB or if documents need to be transmitted Example: **jsmith@somewhere.com**

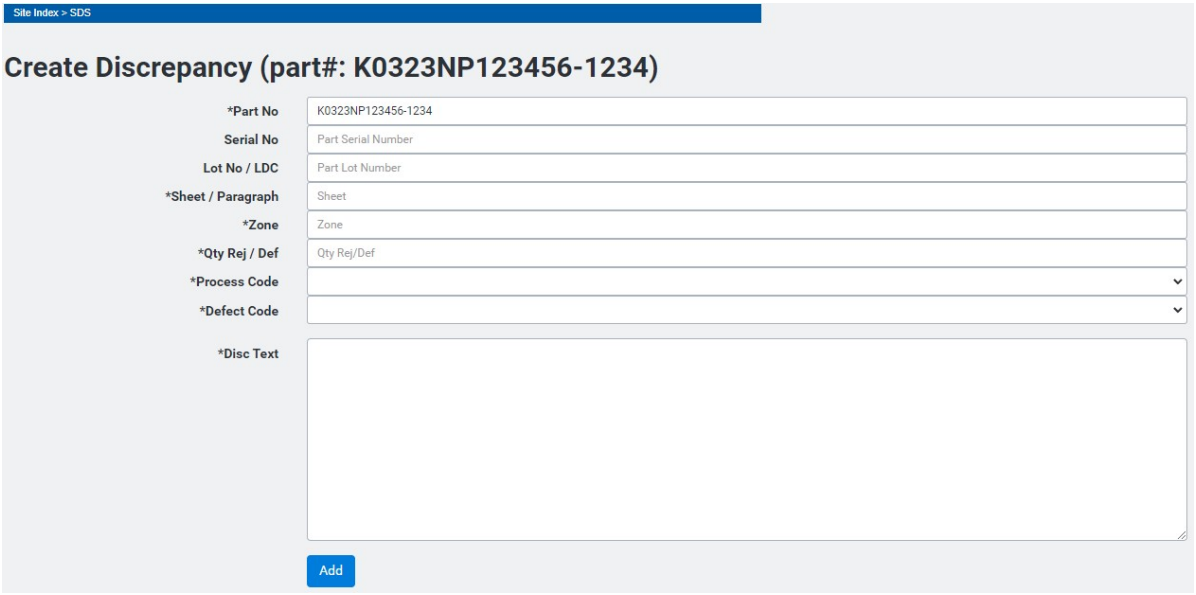
Create Discrepancy #1



5. As required, complete/review the following fields:

Field Name	R/O/C	Description
Part No.	R	This field will be filled with the part number from the first screen. If the discrepant part is different, then enter it here. Each discrepancy may have a different part number, as long as it is a detail of the PO part number on the first screen
Serial No.	O	Enter serial number; if applicable This field is small. If you are submitting the same nonconformance for all serial numbers, then put the serial numbers in Disc. Text. If each serial number has a different discrepancy, then load serial numbers individually; per discrepancy. Note: there will be an opportunity to add more discrepancies after completing this page of fields **Example:** S0001
Lot No. / LDC	O	Enter Lot Number; if applicable If multiple lots, see comments on Serial Number above for input strategy. **Example:** 444444

Create Discrepancy #1



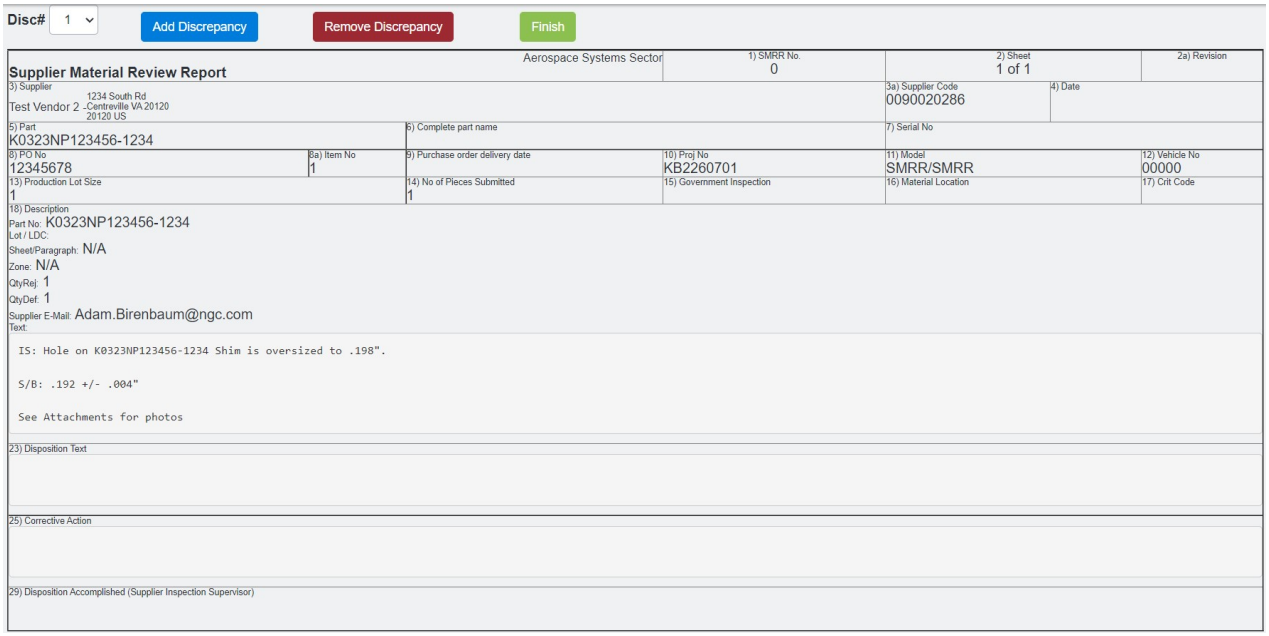
6. As required, complete/review the following fields:

Field Name	R/O/C	Description
Sheet/ Paragraph	R	Enter the drawing sheet number where discrepant dimension appears **Example:** 1 **Note:** Enter N/A if not applicable
Zone	R	Enter drawing zone of above sheet **Example:** 2B **Note:** Enter N/A if not applicable
Qty Rej / Def	R	Enter quantity of parts for this discrepancy. Remember the input strategy being used, one per or multiple parts **Example:** 1
Process Code	R	Select the appropriate category **Example:** Material Handling

Field Name	R/O/C	Description
Defect Code	R	Select the appropriate defect code from the pull down list using the defect definitions provided. **Example:** External NG Supplier
Disc. Text	R	Enter the discrepancy using the Should Be per drawing dimension and **Note:** Appendix A contains requirements on Discrepancy Definition and Information Needed for NG engineering to perform the analysis and disposition determination.

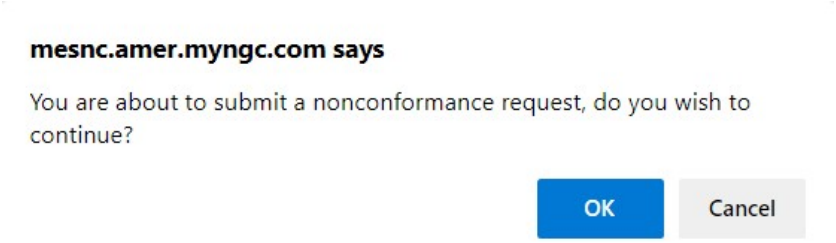
7. Click on Add for the first discrepancy.

View of an on-line tag of Discrepancy #1



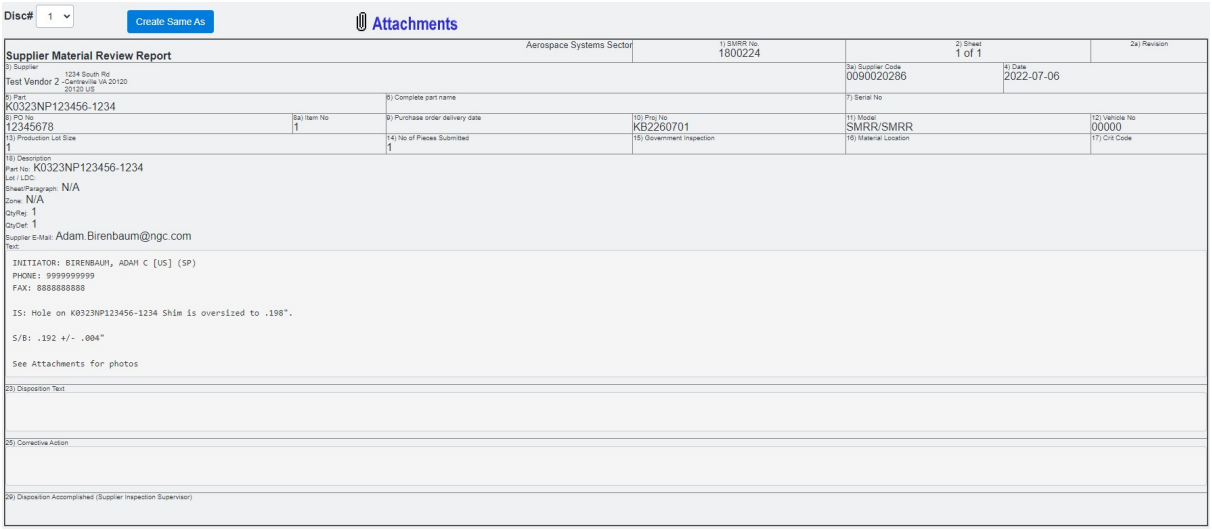
8. Click on the appropriate button to create each additional discrepancy (repeat steps 5 & 6) as required or remove one with the Remove Discrepancy button.

Click on the Finish button when you are done entering data.



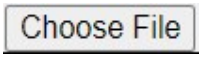
System message displays. Click OK to continue.

This screen has the MES-NC tag number, for future reference

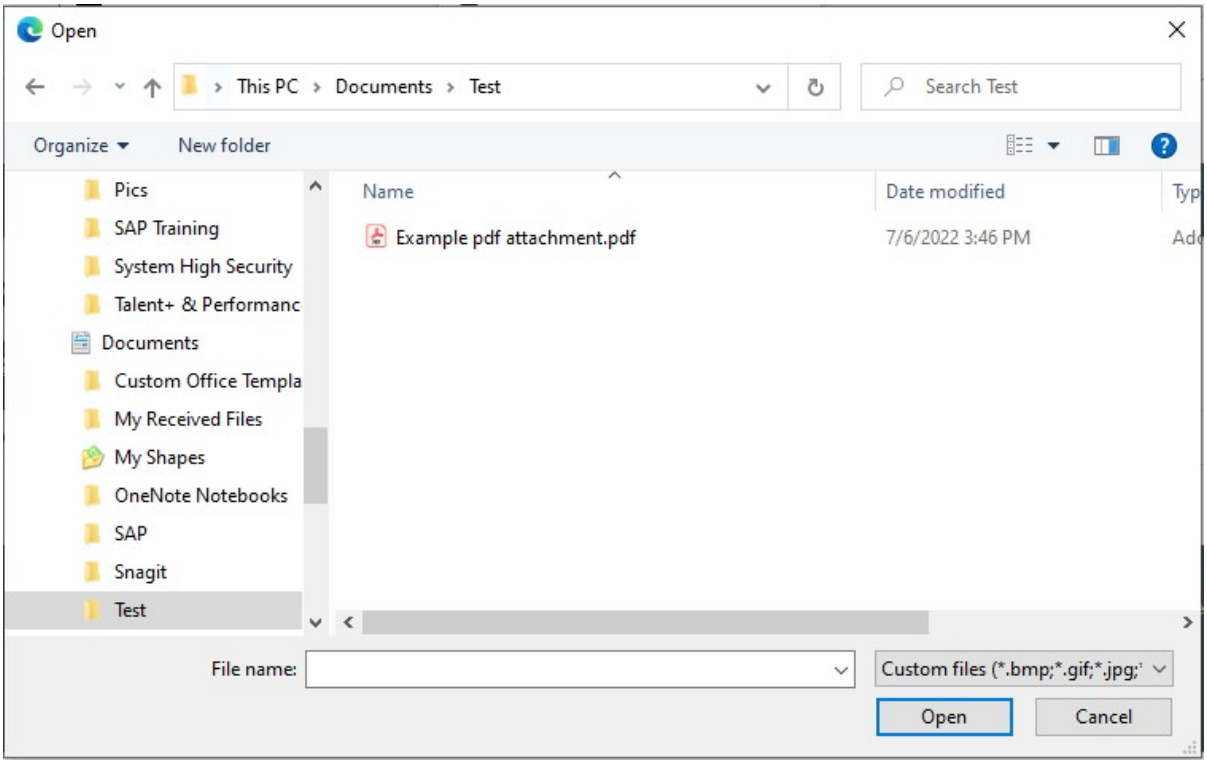


9. If you have attachments to submit, click 

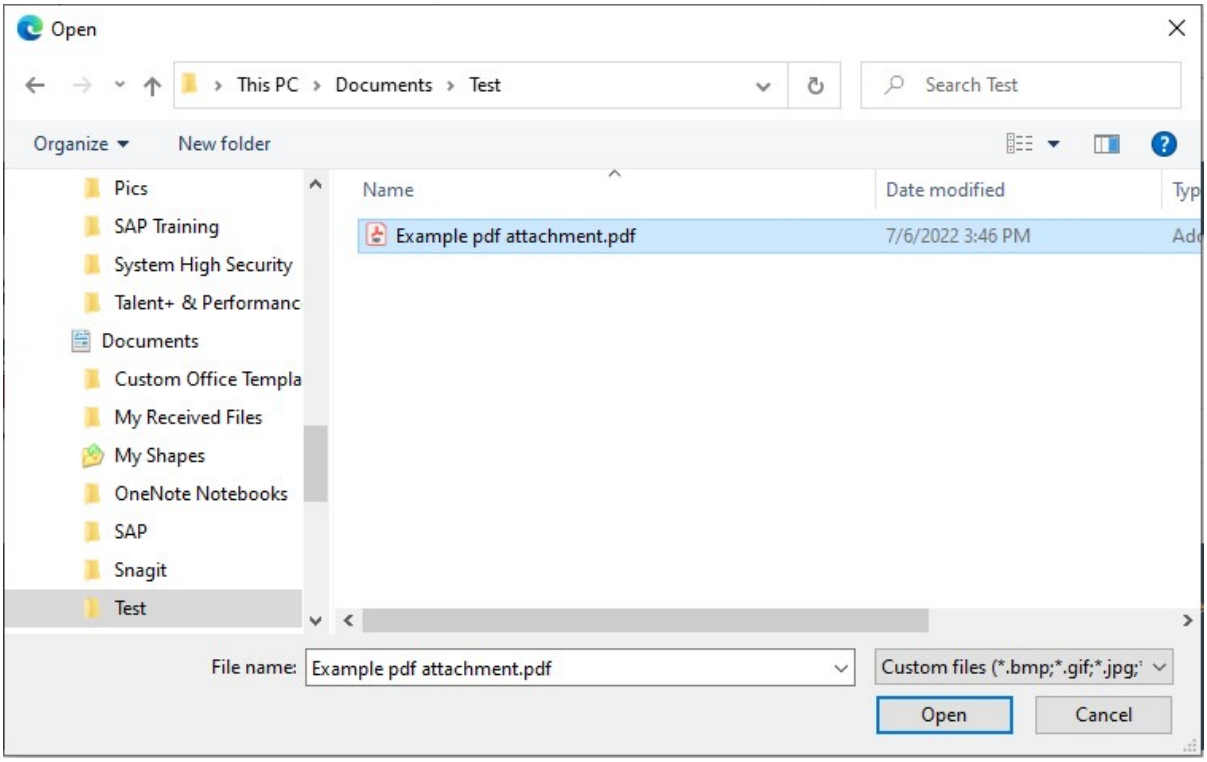
to include sketches/graphical files. The file types allowed in MES-NC are; .gif, .bmp, .jpg, .tif, .tiff and .pdf.

9.1 Click on 

Choose file from your computer or server


Open
This PC
Documents
Test
Search Test
Organize
New folder
Pics
SAP Training
System High Security
Talent+ & Performanc
Documents
Custom Office Templa
My Received Files
My Shapes
OneNote Notebooks
SAP
Snagit
Test
Name
Date modified
Example pdf attachment.pdf
7/6/2022 3:46 PM
File name:
Custom files (*.bmp;*.gif;*.jpg;
Open
Cancel

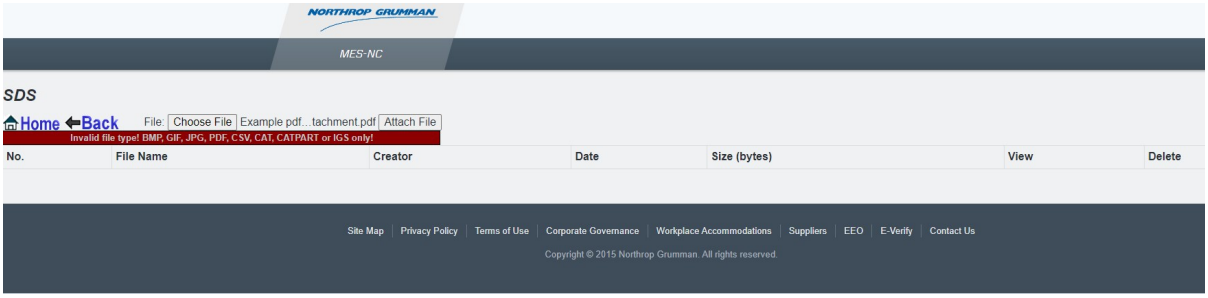
Choose file



Click on a file to attach, Example pdf attachment.pdf

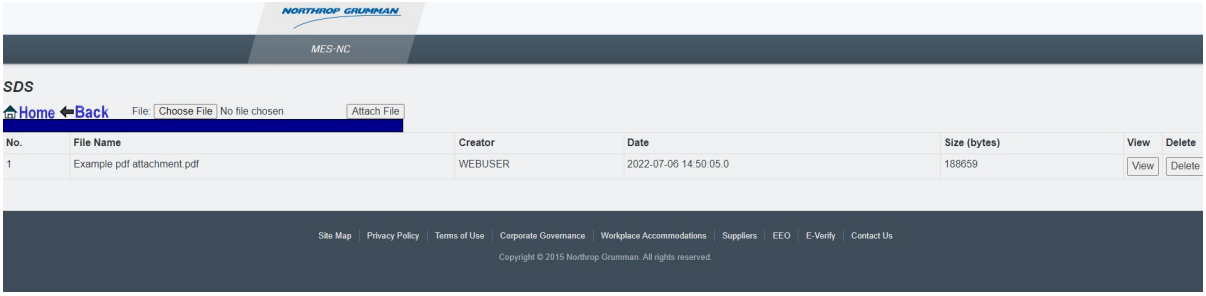
10. Click Open

Attachments



11. Click 

Upload Status will display when completed

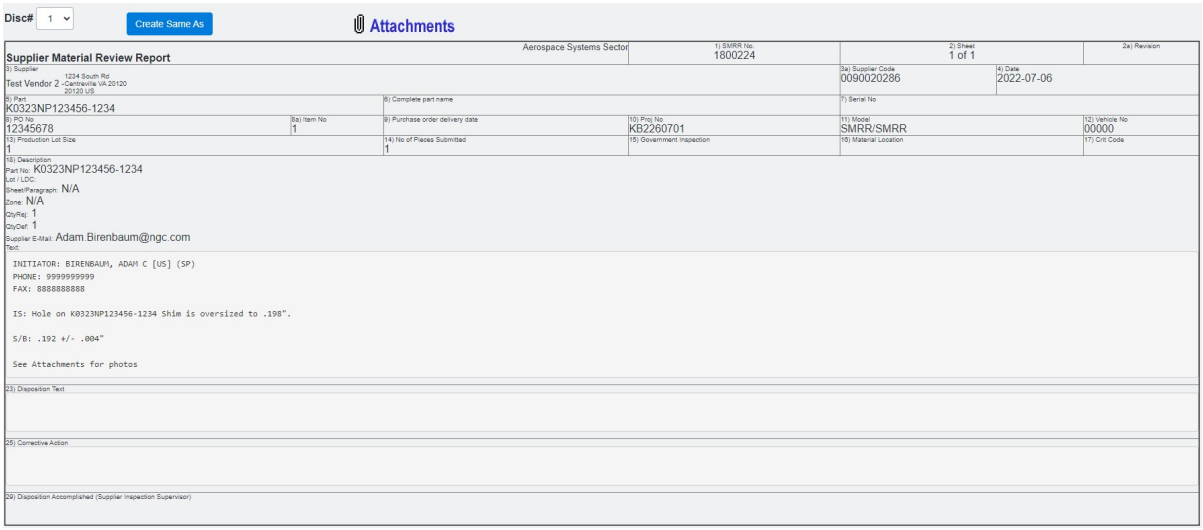


12. Click 

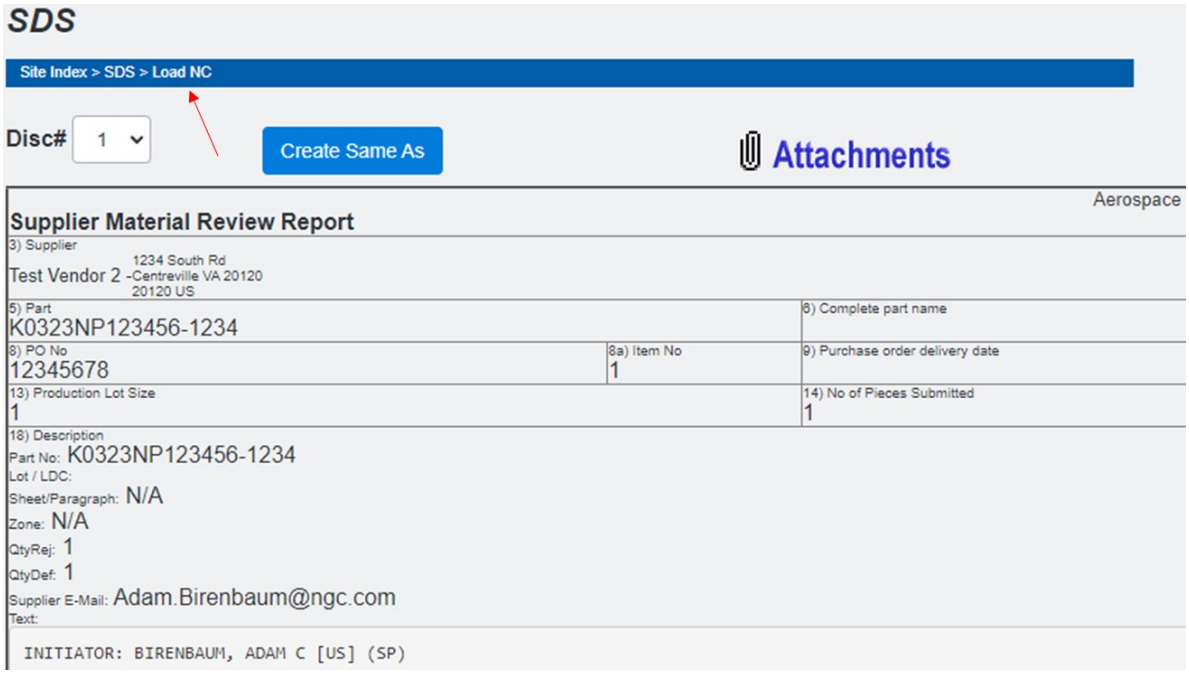
To verify the correct file is attached. If any other files require attaching, repeat steps to add additional attachments.

13. When done attaching all files; Click 

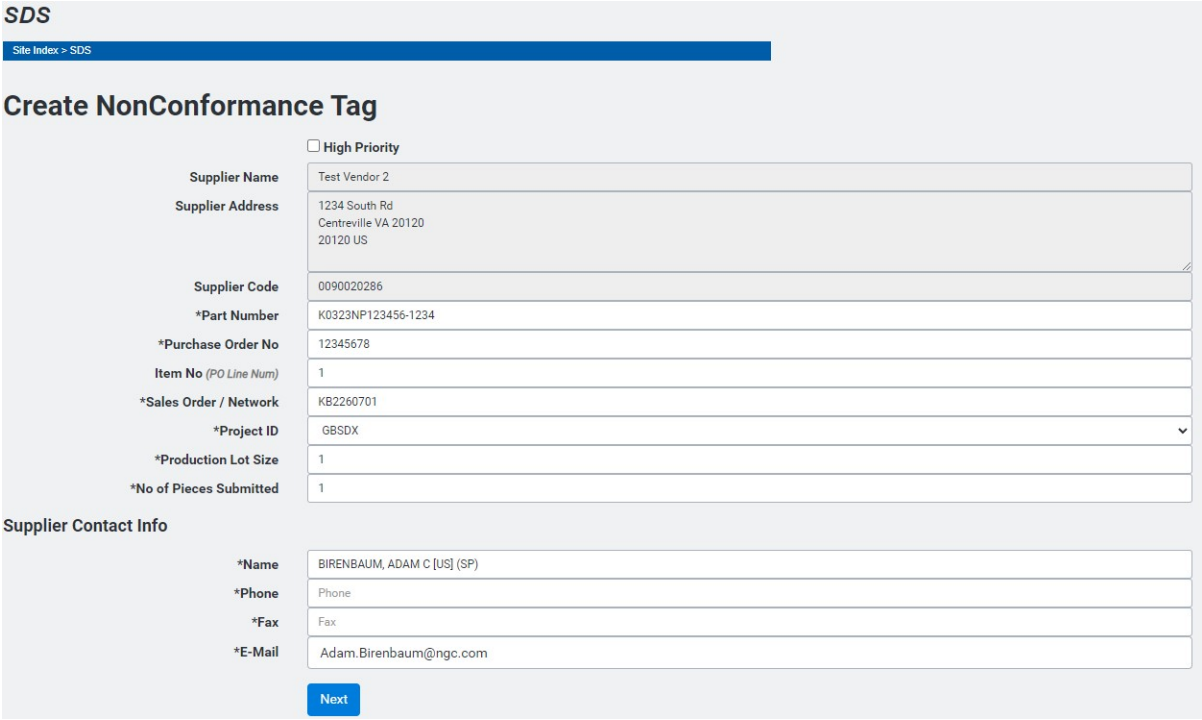
SMRR



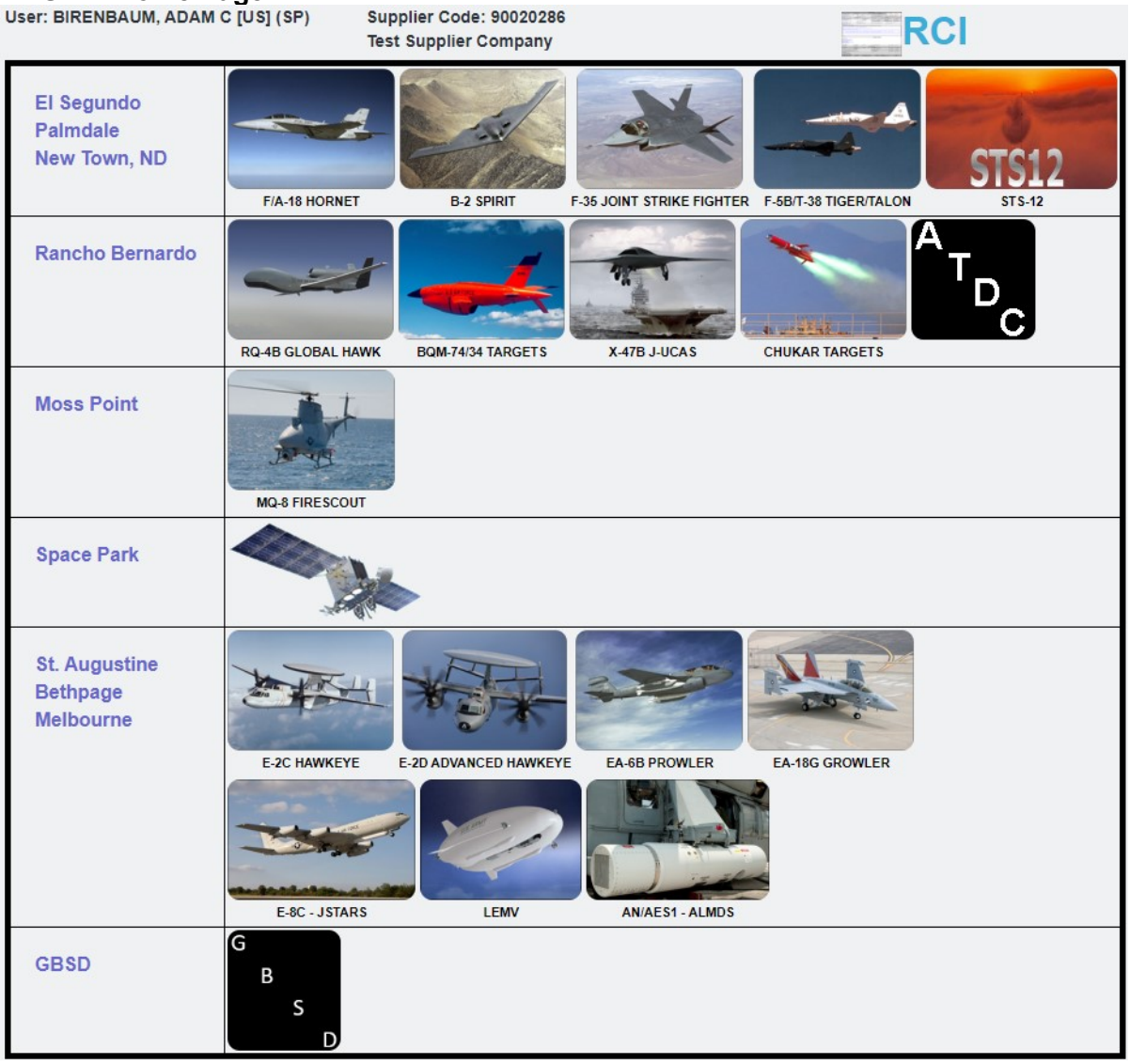
Now would be a good time to print the document for future reference. The document will not be viewable once NGSP starts working on it and until disposition has been completed.



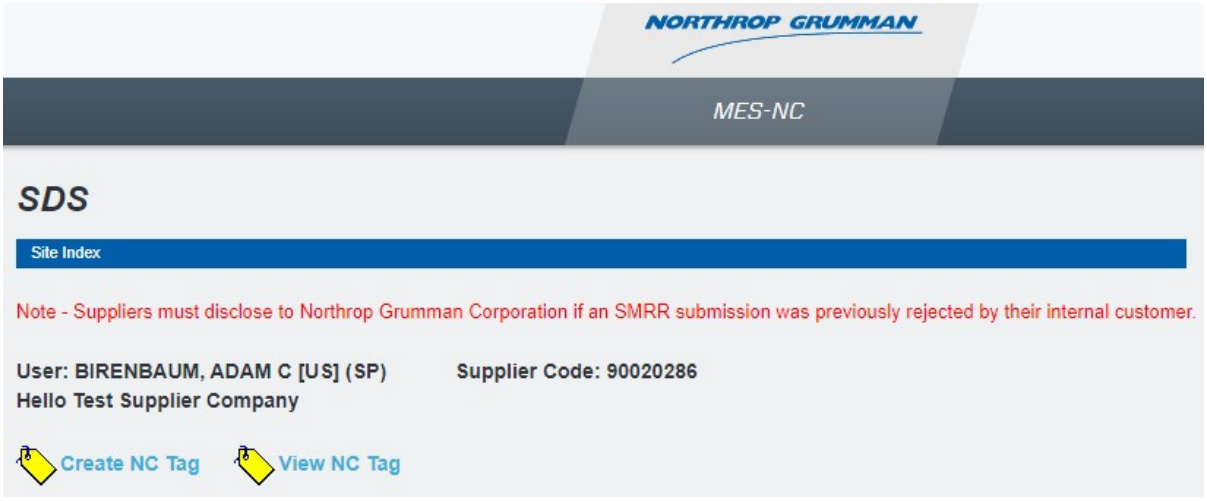
14. If needed, click Create Same As to start creating a new SMRR with already populated information from the already submitted SMRR



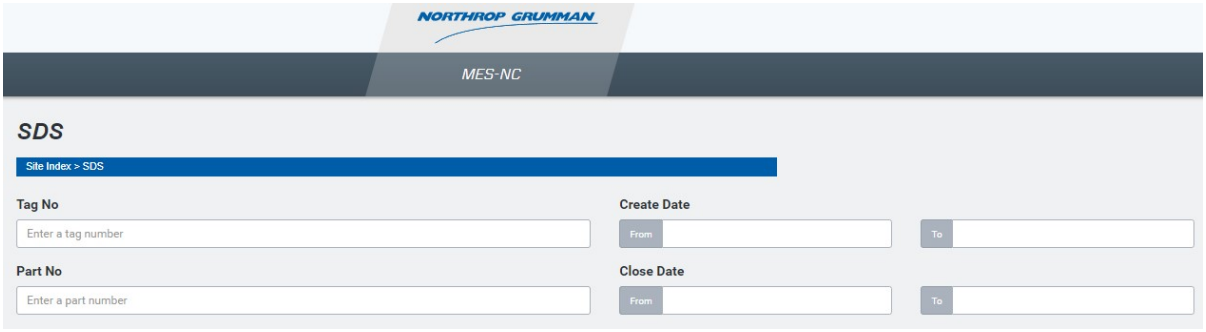
MES NC Home Page



The following are instructions for viewing a previously submitted tag and statuses.
Click the Site where tag was submitted.

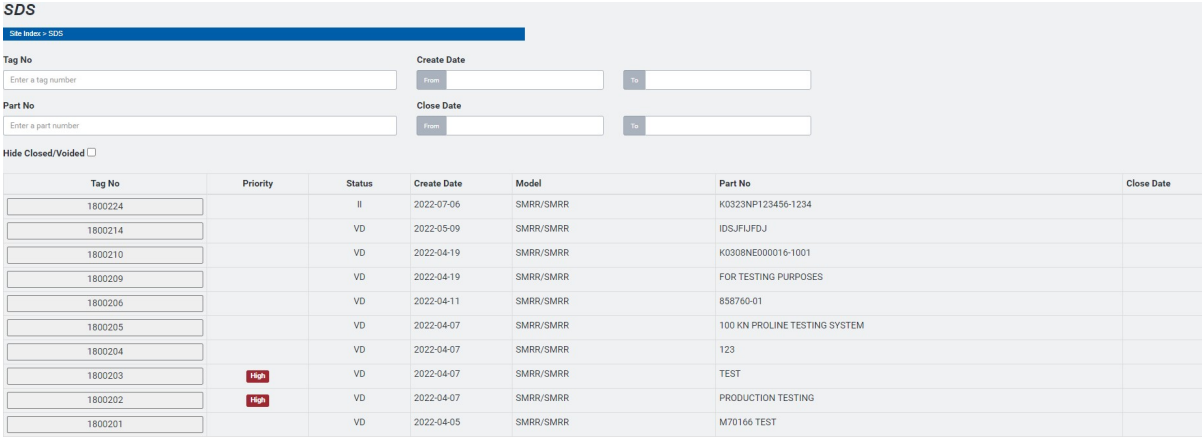


15. Click “View NC Tag”



16. Enter Tag Number or click search button search all active tags

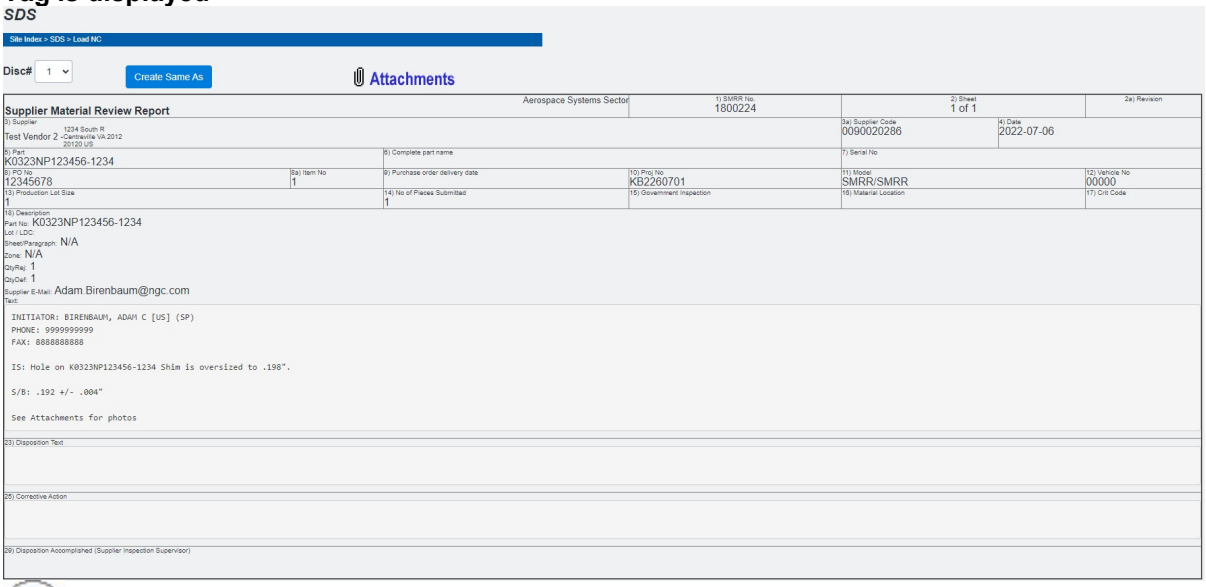
Search Results



Tag No	Priority	Status	Create Date	Model	Part No	Close Date
1800224		II	2022-07-06	SMRR/SMRR	K0323NP123456-1234	
1800214		VD	2022-05-09	SMRR/SMRR	IDSJFIJFDJ	
1800210		VD	2022-04-19	SMRR/SMRR	K0308NE000016-1001	
1800209		VD	2022-04-19	SMRR/SMRR	FOR TESTING PURPOSES	
1800206		VD	2022-04-11	SMRR/SMRR	858760-01	
1800205		VD	2022-04-07	SMRR/SMRR	100 KN PROLINE TESTING SYSTEM	
1800204		VD	2022-04-07	SMRR/SMRR	123	
1800203	High	VD	2022-04-07	SMRR/SMRR	TEST	
1800202	High	VD	2022-04-07	SMRR/SMRR	PRODUCTION TESTING	
1800201		VD	2022-04-05	SMRR/SMRR	M70166 TEST	

17. Select tag to review

Tag is displayed



When a tag has a disposition applied it will be displayed in the Disposition Text field

Definition of tag status for each tag is displayed. An error will occur stating ‘cannot load’ for any status as indicated below with a No.

Code	Definition	Viewable by supplier	Acceptable to Ship
II	Inspection Initiate	Yes	No
MC	Manufacturing concurrence	No	No
PR	Preliminary Review	No	No
MR	Material Review	No	No
EN	Engineering Material Review	No	No
CU	Customer	No	No
MF	Manufacturing rework	Yes	No
CL	Closed	Yes	Yes
IS	Inspection supersede	No	No
VD	Void	Yes	No
ID	Interim Disposition	Yes	No
SI	Special Installation	No	No

Note: supplier is only authorized to ship with a CL “Closed” status unless directed by MRB and/or Buyer

Result

You have a permanent record in OASIS/ MES-NC for this nonconformance. You may inquire this record at any time.

Comments

None

Appendix A - Requirements on Discrepancy Definition and Information Needed

Requirements for Discrepancy Definition:

Clear, detailed “Is” and “Should be” statement regarding what the discrepancy entails with specific location, dimensions, tolerances, and units. The “Should be” statement shall reference the applicable requirement(s) such as drawing dimension, datum, notes, and specifications to which the “Is” statement is nonconforming.

The description of the discrepancy should stand on its own without needing to review any other document to understand the problem. However, the descriptions may refer to another document to explain/clarify the discrepancy.

- The “Is” condition must contain:
  - The part number(s) affected.
  - The part number revision(s).
  - The part nomenclature(s) affected.
  - Criticality of part(s) if applicable (fracture critical, safety critical).
  - The type of discrepancy (i.e. critical, major, minor).
  - The “size” of the discrepancy.
  - Use one or more of the following to describe location of discrepancy:
    - X, Y, Z or range of coordinates for each discrepancy. Also, to be entered in X, Y, Z fields of the form header (when applicable).
    - If the drawing does not show X, Y, Z locations, use drawing sheet and zone. On those drawings that have alphanumeric grids or coordinates, enter the appropriate locations for the discrepancy.
    - Describe the location for each discrepancy (i.e., give measurements from a “landmark” on Part/Assembly to the discrepancy).

      EXAMPLE: The discrepancy is two (2) inches down from the forward edge, five (5) inches inboard from the outboard edge on the inner mold line in the discrepancy at any time.
- The “Should be” condition must contain:
  - The engineering/specification requirements include tolerance limits +/- that the part is being inspected to.

    EXAMPLE: “should be [object/part/feature] at [XX +/- XX] per [engineering drawing/spec number].”
  - If the engineering/specification does not allow any deviation or tolerance for the type of discrepancy, then state so.

    EXAMPLE: “should be no [name the type of discrepancy] per the engineering drawing/spec number.”
- Reference model, parts lists, specifications, opposite parts, metrology data, and file attachments as applicable.

- Identify multiple defects with the same “should be” conditions, in the body of the description, with Nonconformance (NC) number plus an alpha identifier beginning with “A” (i.e., NC 1A, NC 1B).
- Each description must address only one type of discrepancy.
- OPTIONAL: Identify segment at the bottom of the discrepancy text e.g. AVE, CLT, S&T, SEIT.
- Proposed disposition with appropriate justification, if supplier has design authority.
- Effectivity, if applicable
- Root cause and corrective action information.
- Vendor Name/Location
- If a first article inspection fails or if a discrepancy is found on a first article inspection part/assembly, identify as “Prior to First Article.”
- Do not use the word “APPROXIMATE or ESTIMATED” in sketches, photos, information, or dimensions in the description of the discrepancy at any time.
- Use DECIMAL for means of measuring, not fraction.
- Each drawing feature/dimension and/or specification requirement that is out of tolerance should be a new discrepancy.
- All additional information can be added after the description of the discrepancy as a “NOTE.” Previous NRs of similar conditions can be referenced after the description of the discrepancy as a “NOTE,” to aid in evaluation, but the nonconformance MUST NOT depend upon another document to explain the discrepancy.
- Rounding Methodology to be used for Nonconformances:
    - All linear dimensions and angular tolerances shall be per the tolerance specified in the Engineering Drawing title block, drawing notes/specifications, or contained within a controlled 3D model. When measuring equipment devices provide more decimal places than the engineering requirement, the measurement value will be rounded to meet the number of decimal places per engineering. Rounding Example: In this example the drawing requirement is 3 decimal places (.xxx). The measuring device used to measure a feature reports a 4^{th} decimal place (.xxxx). Therefore, if the value of the fourth decimal place is between 0 and 4 inclusive, round down. If the value of the 4th decimal place is between 5 and 9 inclusive, round up. To illustrate this method…If the measurement value is .0154 then round down and the documented value would be .015. If the measurement value is .0155 then round up and the documented value is .016.

<u>Requirements File Attachments and Sketches</u>

Include the following with file attachments and/or sketches:

- Photograph of discrepancy on the product.

  NOTE: If photographs are not allowed due to classified environments, contact the Northrop Grumman (NG) Supplier Quality representative.

    - Photo is to be in focus and clear with Global Views and Detail Views as applicable to include identification of related parts, subject discrepancies, and orientation.

- Show the dimensions from a “landmark” on the Part/Assembly and clearly identify the location of the discrepancy with arrows or markings on the attachment or picture. Identify the discrepancy.

  Example: “NC1” or NC1A, NC1B.
- Label axis/orientation.
- As applicable, include caliper/scale (ruler) in the photo or any other similar tool that would help in analyzing and dispositioning the nonconformance.

- Sketch/screenshot of discrepancy on engineering definition.
  - Sketch/screenshot are to be clear.
  - Label axis/orientation.
  - Include scale as necessary.
- Any other files that are referenced in the discrepancy text or are beneficial to aiding the discrepancy definition.

Appendix A - Requirements on Discrepancy Definition and Information Needed

Additionally, for the defect types highlighted below the specific information needed is also key in expediting the proper disposition:

Defect Type	Defect-Specific Information Needed			
HOLES				
Extra Hole	Actual Size	Minimum Edge distance and Pitch distance		
Short edge distance	Minimum Edge distance and Pitch distance	Actual part thickness		
OOT Holes	Elongated or True and Round?	Actual Size (Max/Min for elongated)	Minimum Edge distance and Pitch distance	
Double Drilled Holes	Pitch distance or Max width if intersected		Minimum Edge distance and Pitch distance	
Deep countersink	Depth	Fastener	Actual part thickness	
COMPOSITE SPECIFIC				
Delamination	Length X Width X Depth	Distance to edges	Distance to nearest fasteners	
Fiber Splitting	Length X Width	Ply Depth		
Unbonds	Length X Width X Depth	Distance to edges	Distance to nearest fasteners	
Fiber orientation error	Ply type	Ply # affected and/or OML vs. IML		
Missing plies	Ply type	Ply # affected and/or OML vs. IML		
Torn Copper Mesh	Length X Width	Distance to edges	Distance to nearest fasteners	Is NDI acceptable?
Porosity	Length X Width	Depth, if determinable	dB level to penetrate, if subsurface	
GENERAL				
Gouges	Length X Width X Depth	Distance to edges	Distance to nearest fasteners	Is NDI acceptable?
Indentations	Length X Width X Depth	Distance to edges	Distance to nearest fasteners	Is NDI acceptable?
Misplaced parts	Amount and direction of mis-location	Edge distances and pitch distances		
Electrical Conductivity OOT	Actual conductivity			
OOT Trim	Edge distances on affected fasteners			
Interference	Length X Width X amount of interference			