



New Mexico State University

**Financial Systems Administration
Preventive Maintenance User Guide – Fume Hoods**

July 2, 2015

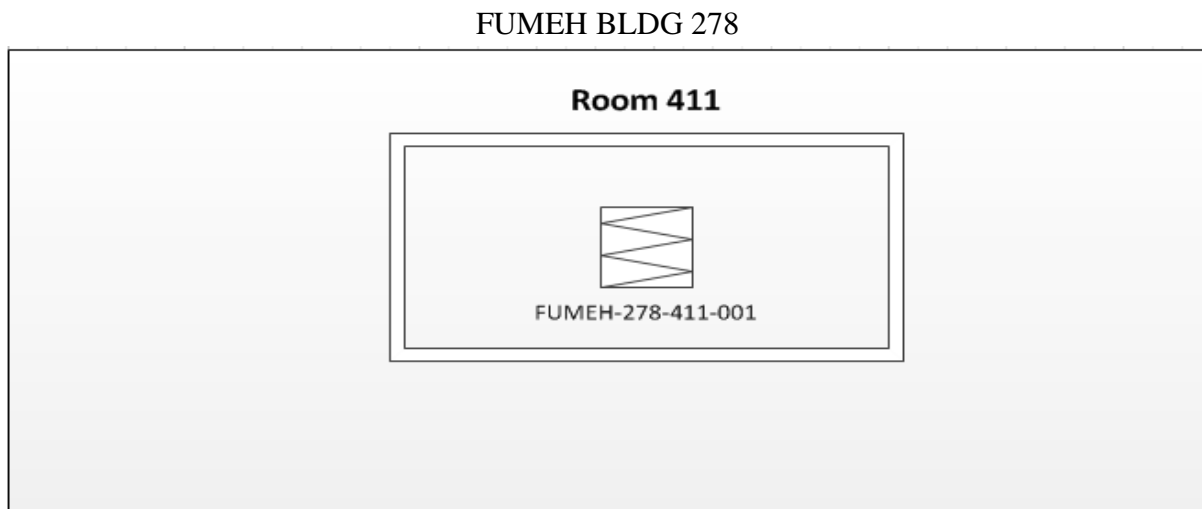
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Introduction

This manual serves as a guiding document for completing Preventive Maintenance Work Orders for Environmental Health & Safety (EH&S). Preventive Maintenance Work Orders are generated in AiM for Assets according to predefined schedules. These Work Orders will then be assigned to a Tech by the Supervisor.

The example diagram below details the type of Fume Hood assets which were identified as requiring preventive maintenance:



Fume Hoods are the only component and are grouped by Building, Location, and Hood-Id, as defined by EH&S. The buildings have been defined as Properties in AiM.

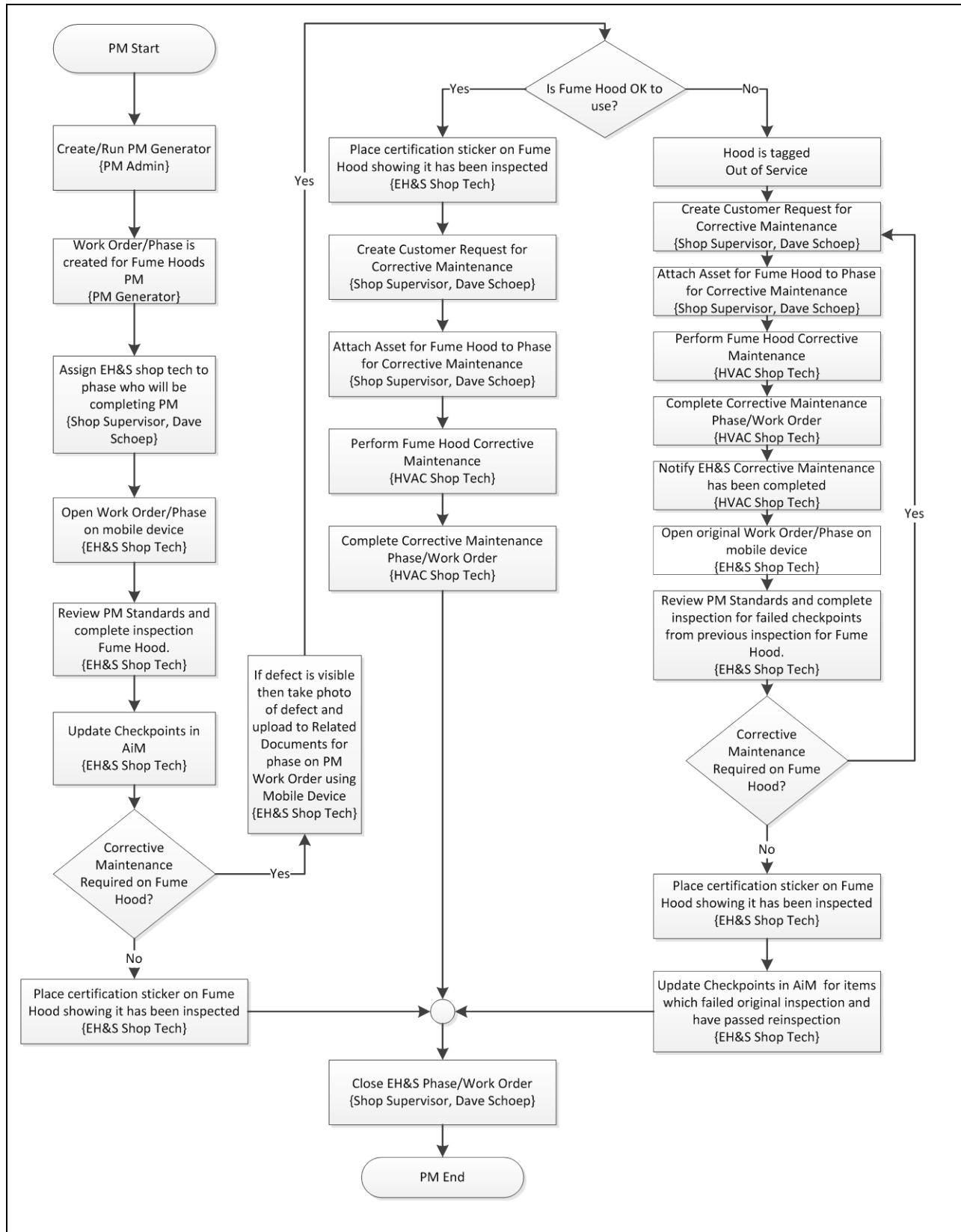
Business Rules

- ★ While performing preventive maintenance if a problem is found that requires corrective maintenance a new work order and phase will need to be created via a Customer Request.
- ★ When a corrective maintenance work order is created, the asset from the PM work order *must* be attached to the corrective maintenance work order.
- ★ Assets will be named utilizing existing FS standards.

Naming Conventions

AiM Component	Convention	Example	Description
Asset Group	Standard group name used for serialized Assets and System Assets.	FUMEH	Standard group name used for serialized Fume Hood Assets.
Individual Asset	Combination of Asset Group, Building number, Room Location, and Hood-ID sticker number to differentiate it from other Fume Hood assets.	FUMEH-278-411-001	The asset group name is FUMEH and the numbers dictate that this is Building 278, Room 411, Hood-ID 001.
PM Template	Combination of the department, shop and a sequential number to differentiate Template from other Templates.	FS-EHS-001	FS is the department Facilities and Services, EHS is the shop EH&S, and 001 is a sequential number
PM Template Phase	Combination of the building number, room number, and a pre-selected Hood-ID number to differentiate the Template Phase from other Template Phases.	278-411-001	The phase is named 278-411-001 because it is PM inspection for fume hoods located at Branson library, ROOM 411, HOOD-ID 001
PM Standards (individual asset)	Same name as Asset Group	FUMEH	The PM Standards applies to all Fume Hoods and as such is named the same as the asset group for Fume Hoods.

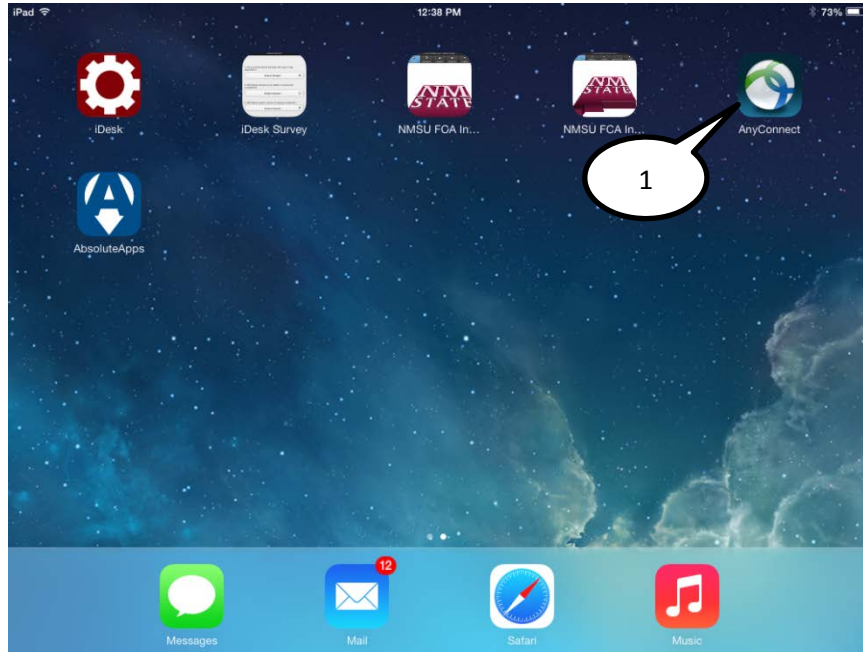
PM Work Order Process Flow



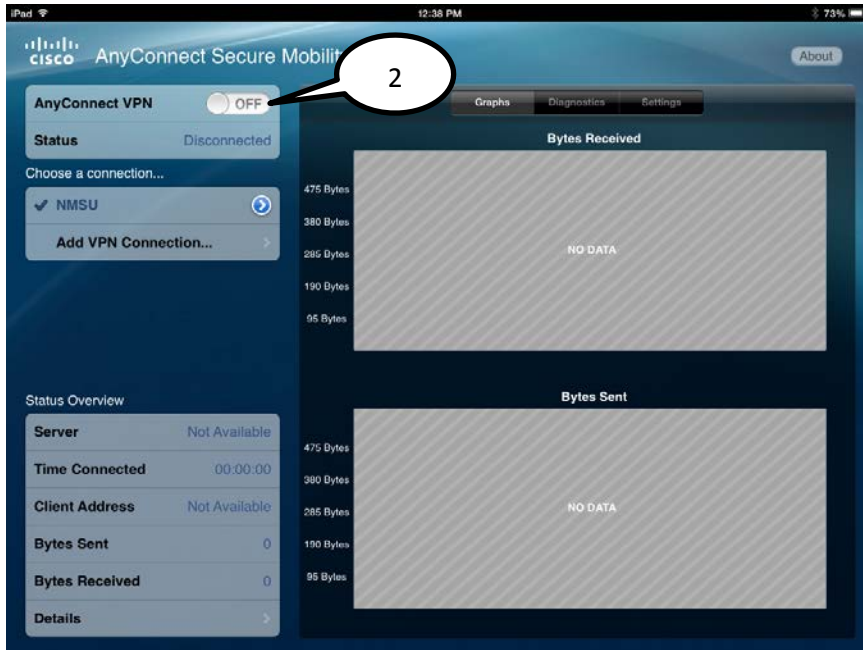
General PM Instructions

AnyConnect on iPad

AnyConnect needs to be turned on in order to access AiM with the iPad when connecting to the Internet using cellular service.



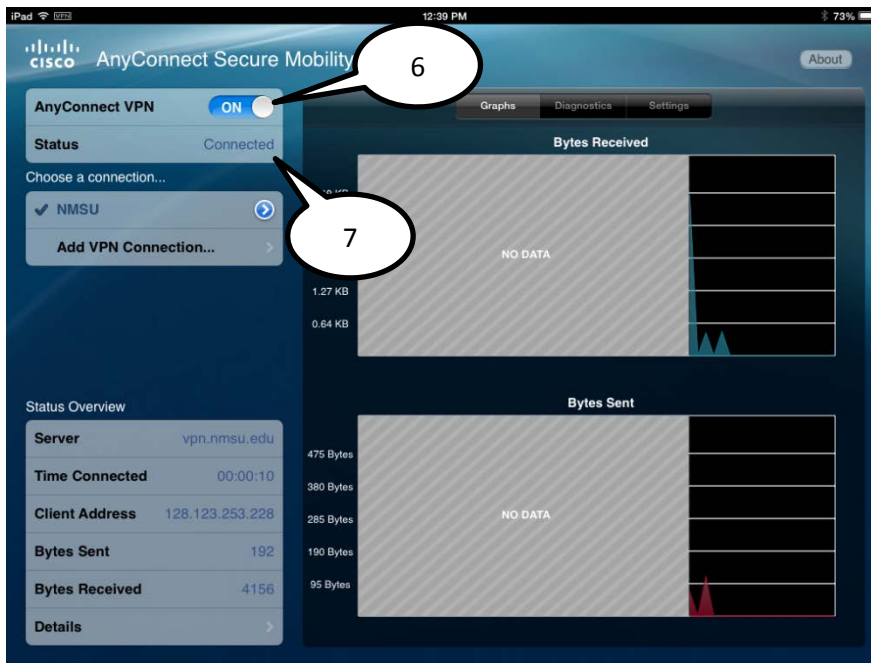
1. Select the **AnyConnect** icon from the home screen.



2. Slide the **AnyConnect VPN** from “OFF” to “ON”.



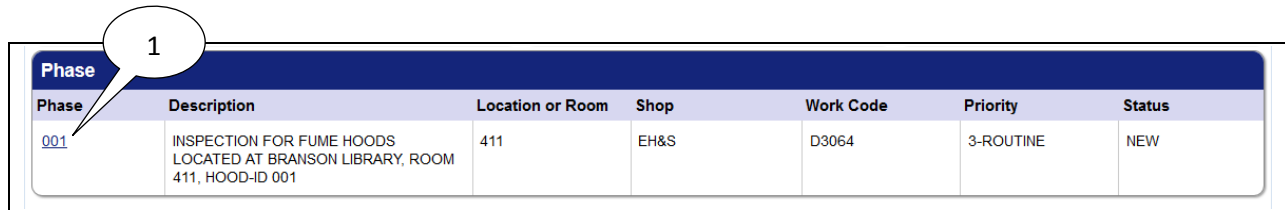
3. Enter Banner **Username**.
4. Enter Banner **Password**.
5. Select the **Connect** icon.



6. **AnyConect VPN** should now be set to “ON”.
7. **Status** should show “Connected”.

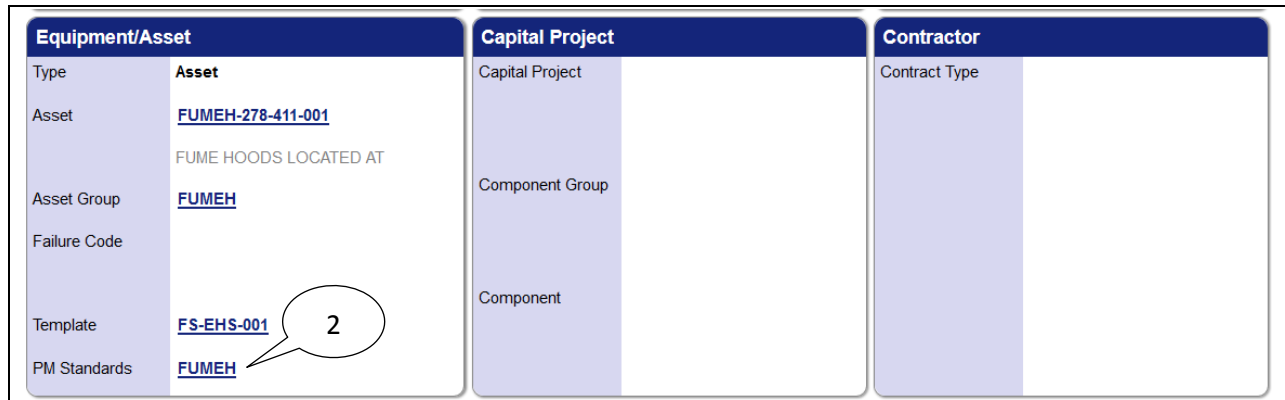
Viewing PM Standards

AiM PM Standards give the specific details for shop technicians to perform the Preventive Maintenance on the assets. Every PM work order will have PM Standards to follow.



Phase						
Phase	Description	Location or Room	Shop	Work Code	Priority	Status
001	INSPECTION FOR FUME HOODS LOCATED AT BRANSON LIBRARY, ROOM 411, HOOD-ID 001	411	EH&S	D3064	3-ROUTINE	NEW

1. Bring up the work order and click on the **Phase**



Equipment/Asset	Capital Project	Contractor
Type: Asset Asset: FUMEH-278-411-001 FUME HOODS LOCATED AT Asset Group: FUMEH Failure Code: Template: FS-EHS-001 PM Standards: FUMEH	Capital Project: Component Group: Component:	Contract Type:

2. Click on the **PM Standard** in the Equipment/Asset section

PM Standards **FUMEH** Editor: JGONZO54 Active: Yes
 Edit Date: Jun 15, 2015 04:17 PM
 Description: NMSU FUME HOOD INSPECTION

Estimate	
Labor Hours	0.00
Labor	\$0.00
Material	\$0.00
Equipment	\$0.00
Contract	\$0.00
Total	\$0.00

Checkpoint	Description	Estimated Labor Hours	Measurement	Active
01	VISIBLE FLOW INDICATOR IS PRESENT	0.00	Yes	Yes
02	VISIBLE FLOW INDICATOR IS WORKING PROPERLY	0.00	Yes	Yes
03	HOOD LIGHTS FIXTURES ARE OPERATIONAL	0.00	Yes	Yes
04	SASH IS WORKING PROPERLY (MOVES FREELY, NO CRACKS, ETC.)	0.00	Yes	Yes
05	HOUSING IS FREE OF PHYSICAL DAMAGE	0.00	Yes	Yes
06	VISIBLE DUCTWORK APPEARS TO BE INTACT (NO CORROSION, SIGNS OF LEAKING , FRESH STAINS, ETC.)	0.00	Yes	Yes
07	FACE VELOCITY FLOW IS WITHIN ACCEPTABLE LIMITS (80-150 LFPM)	0.00	Yes	Yes
08	RECORD AVERAGE FACE VELOCITY FLOW	0.00	Yes	Yes

3. View the PM Standards **Checkpoints**

4. Click on the **Done** icon when you are finished viewing checkpoints

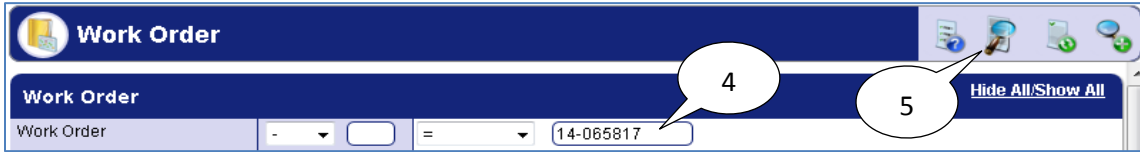
Phase **001** Created By: SHALEY Status: NEW
 Date Created: Jun 15, 2015 04:30 PM Work Order: [15-040629](#)
 Description: INSPECTION FOR FUME HOODS LOCATED AT BRANSON LIBRARY, ROOM 411, HOOD-ID 001 Budget: \$0.00
 Location or Room: [411](#) CONSERVATION LAB

5. Click on the **Done** icon to close the Phase screen

Print PM Work Order

It is possible to print out a Preventive Maintenance Work Order with the *PM Standards Checkpoints* listed. This can be used as a quick reference to view the steps for performing preventive maintenance as detailed in the *PM Standards Checkpoints*.

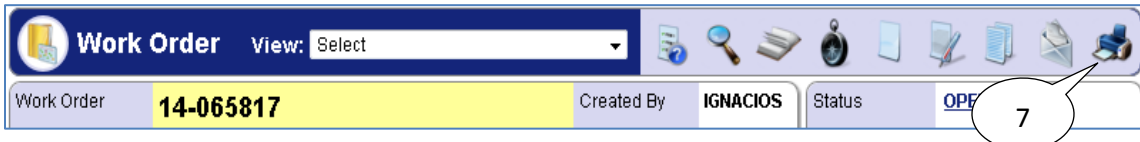
1. Logon to AiM
2. Click on **Work Management**
3. Click on the **Search** icon next to Work Order



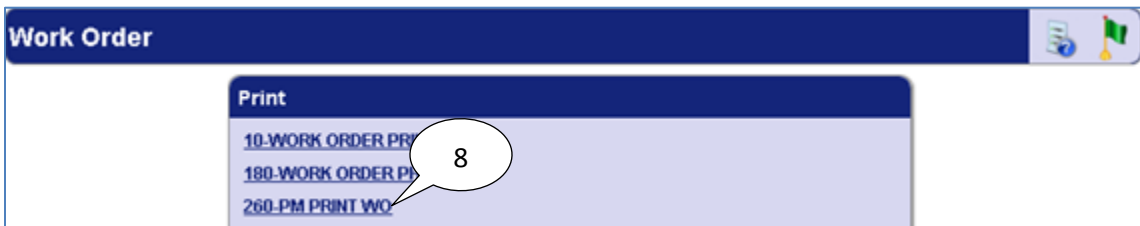
- 4. Enter the Work Order number
- 5. Click on the **Search** icon



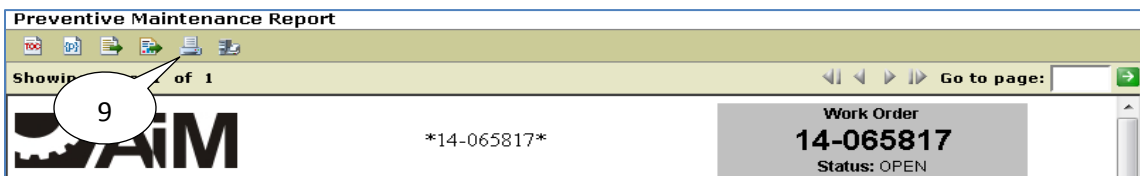
- 6. Click on the **Work Order**



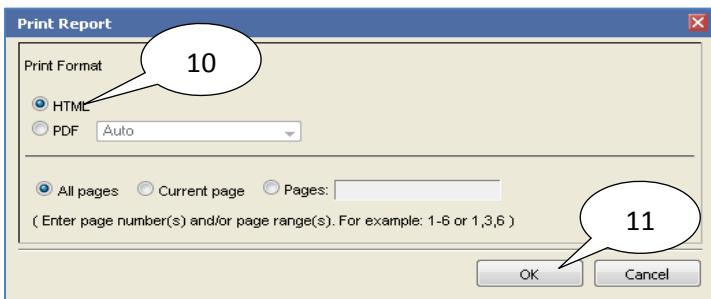
- 7. Click on the **Print** icon



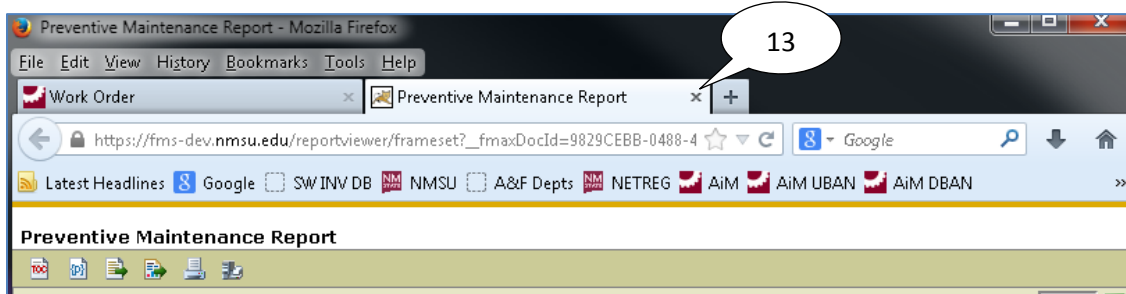
- 8. Click on **260-PM PRINT WO**



- 9. Click on the **Print** icon



10. Select the **HTML** radio button
11. Click **OK**
12. The Print window will appear → Click **OK**



13. Close the **Preventive Maintenance Report** tab by clicking on the **X**



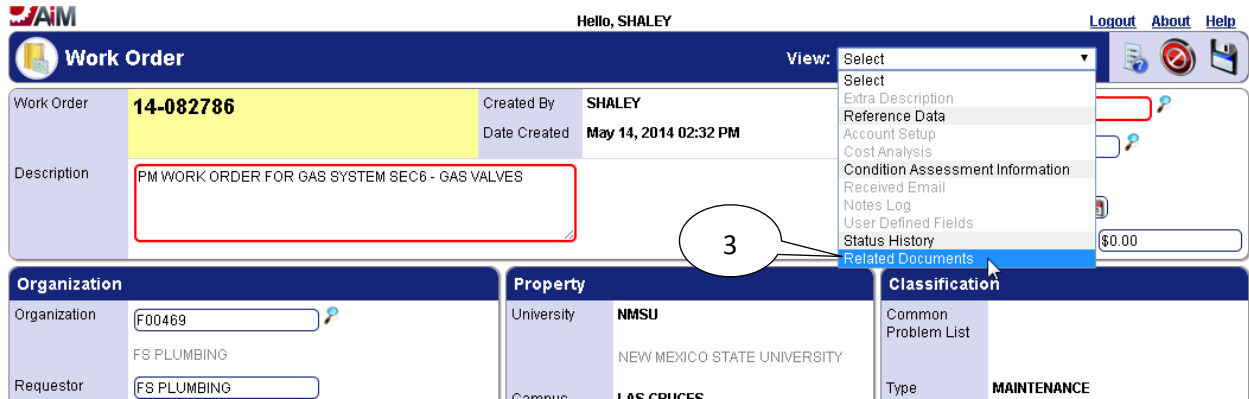
14. Click on the **Done**  icon

Attaching Related Documents

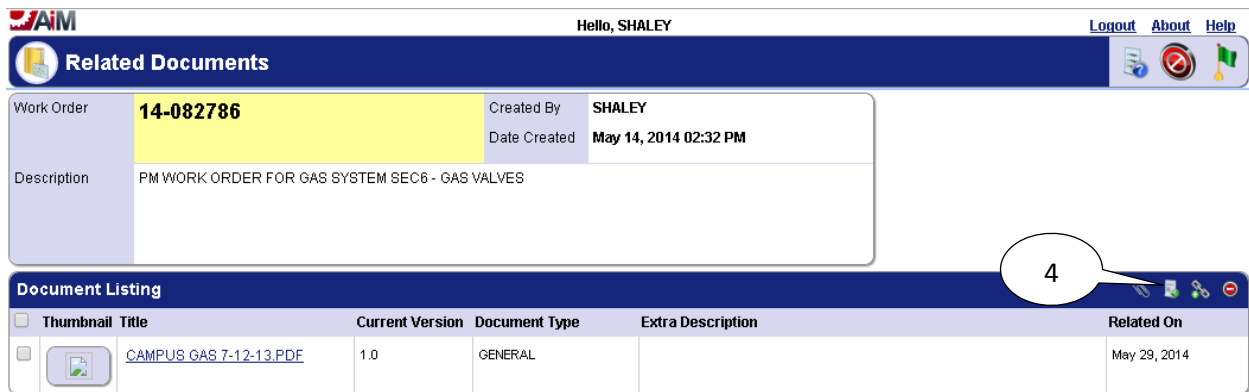
1. Navigate to the work order or phase for which the related document needs to be attached.



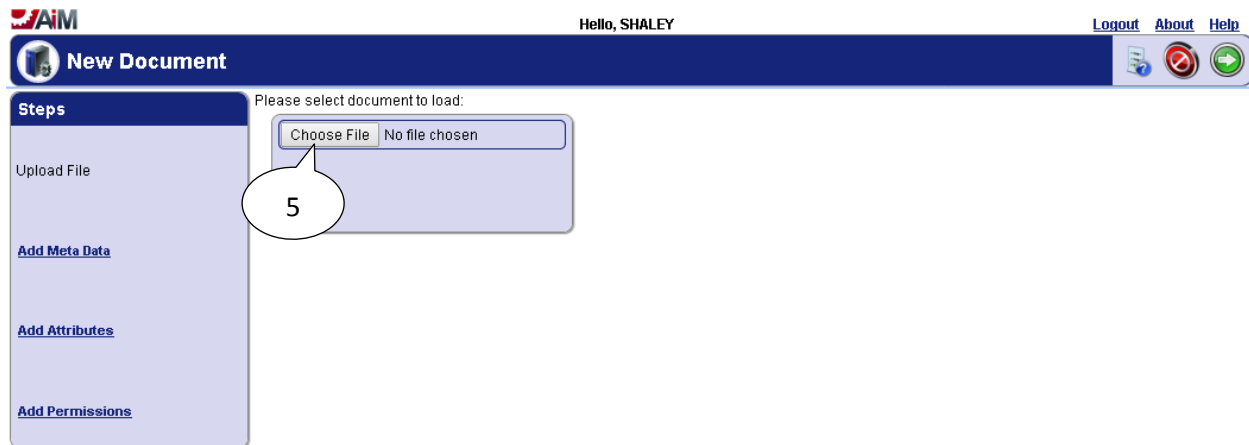
2. Select the **Edit**  icon.



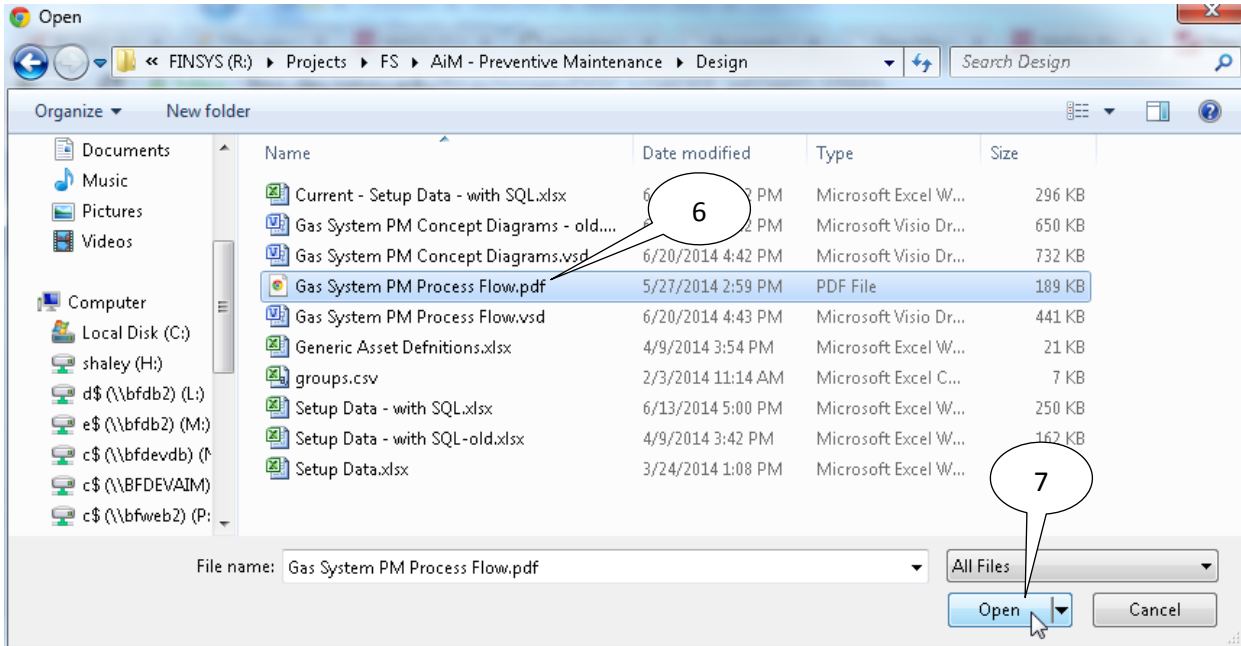
3. Select **Related Documents** form the **View** menu.



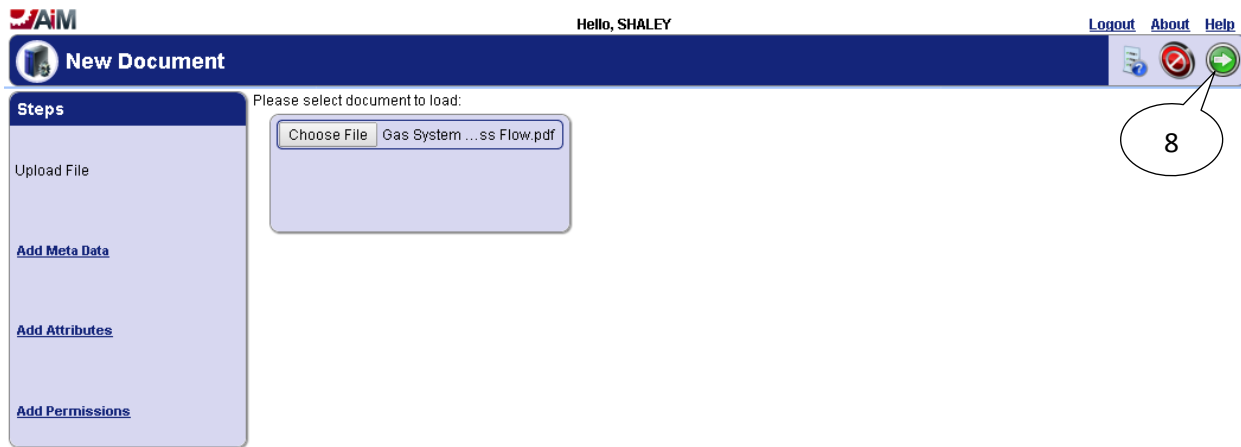
4. Select the **Add New Document** icon.



5. Select **Choose File**.



6. Navigate to the file which is to be uploaded and select it.
7. Select **Open**.



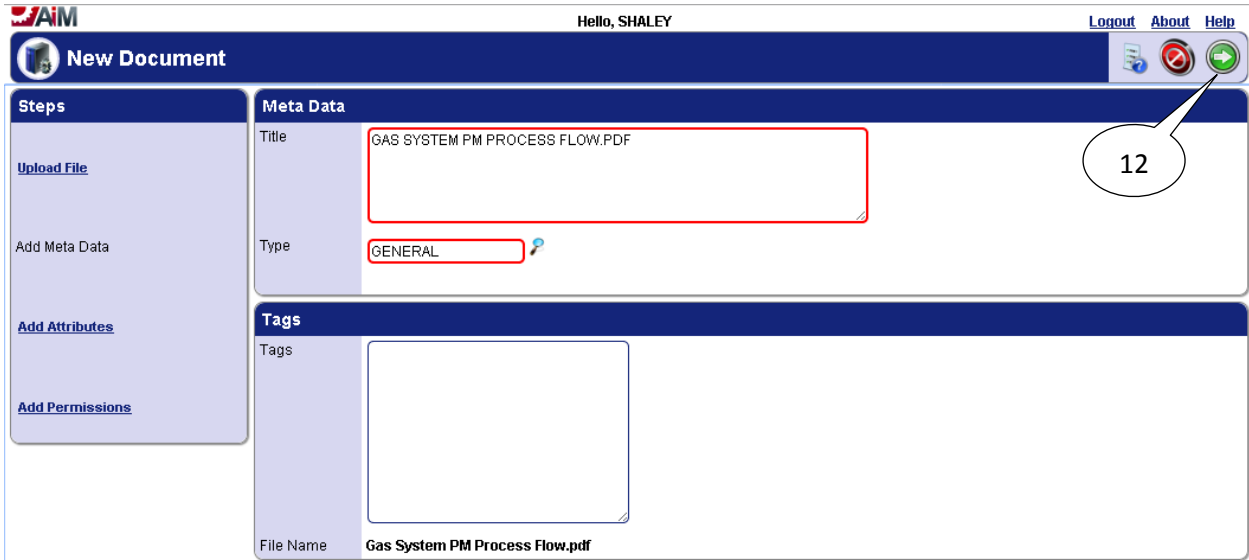
8. Select the **Next**  icon.

9. Enter **Title** if it needs to be different than the file name.

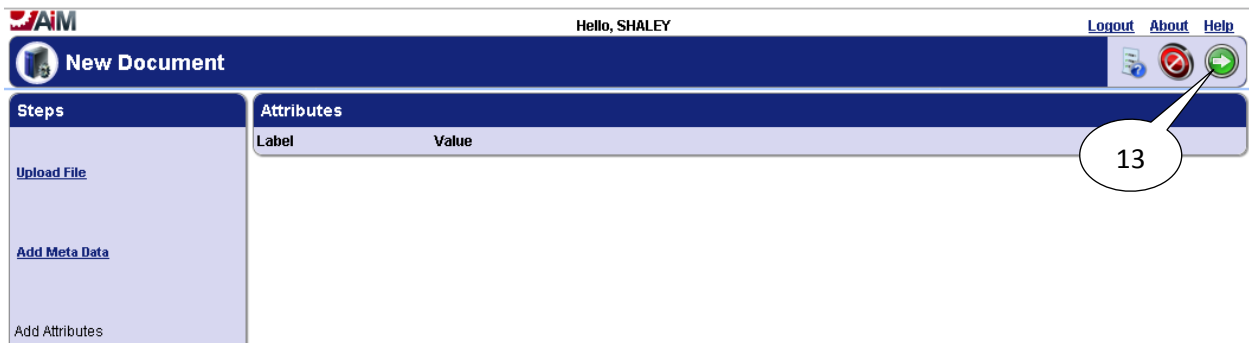
10. Select the **Search**  icon.

Type Name	Description
BIRT_REPORT	BIRT REPORTS
CAD_DRAWING	AUTOCAD DWG FILES
CONVERTED CAD DRAWING	CONVERTED CAD DRAWING
CUSTOMER INVOICE	CUSTOMER INVOICE
EMAIL	EMAIL
EMAIL_TEMPLATE	EMAIL TEMPLATES
GENERAL	UNCATEGORIZED
IMAGE	IMAGES
OUTBOUND EMAIL	OUTBOUND EMAIL
SCRIPT	SCRIPTS

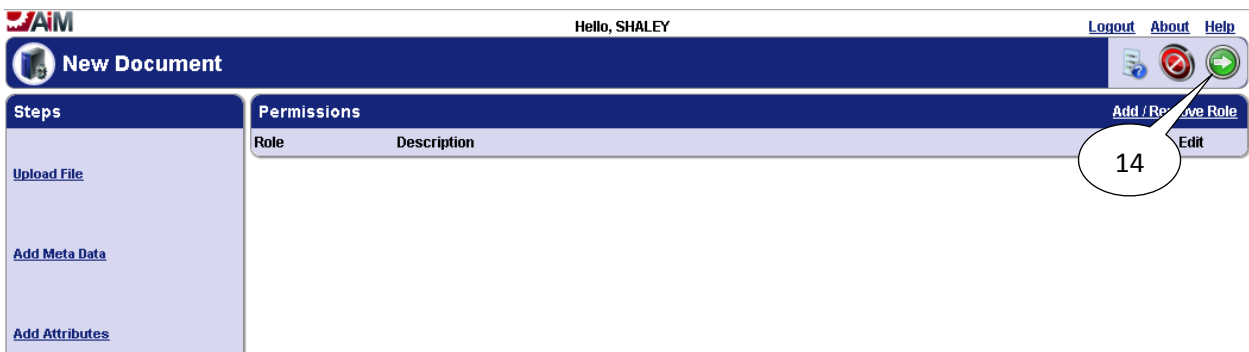
11. Select the **GENERAL** link.



12. Select the **Next**  icon.



13. Select the **Next**  icon.



14. Select the **Next**  icon.



15. The file will now appear in the **Document Listing** pane.

16. Select the **Done** icon.



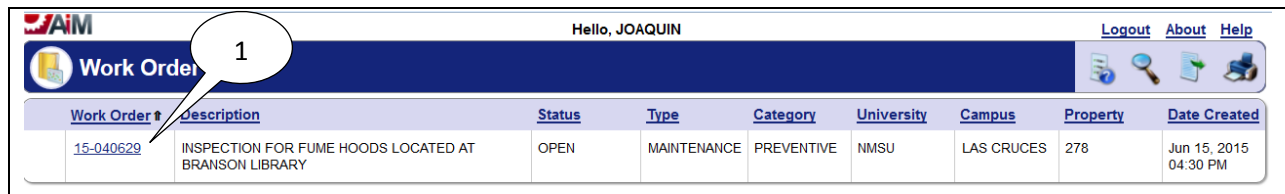
17. Select the **Save** icon.

Fume Hood Preventive Maintenance

Preventive Maintenance for Fume Hoods is performed annually. The Preventive Maintenance work orders for Fume Hoods will be generated commencing July 1st of every year. Twenty-six Fume Hood assets per PM work order will be generated each month for a period of one year.

Viewing /Completing Checkpoint Measurements

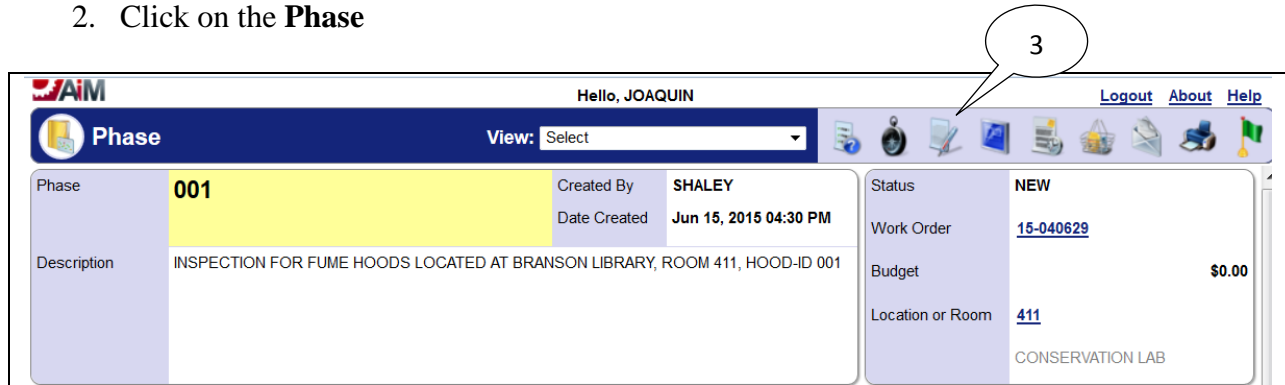
All preventive maintenance work orders will require the technician to record values and/or record the steps for performing the preventive maintenance that have been completed. AiM *Checkpoint Measurements* will be used to record these values and/or steps which have been completed. The phase has to be put into edit mode in order to edit the *PM Checkpoint Measurements*:




1. Open the work order



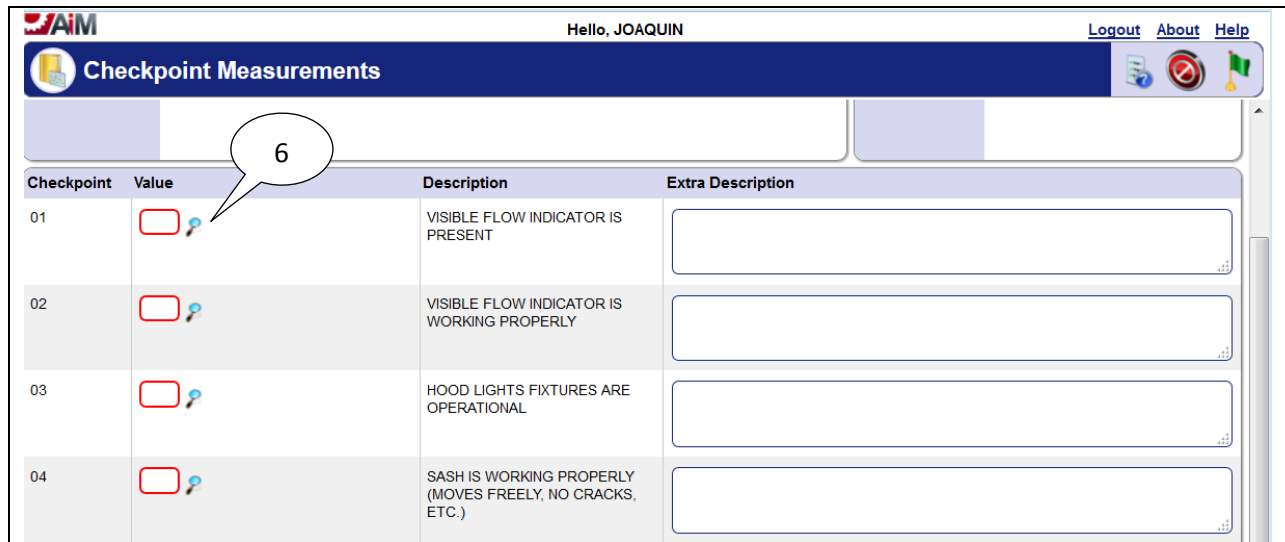
2. Click on the **Phase**



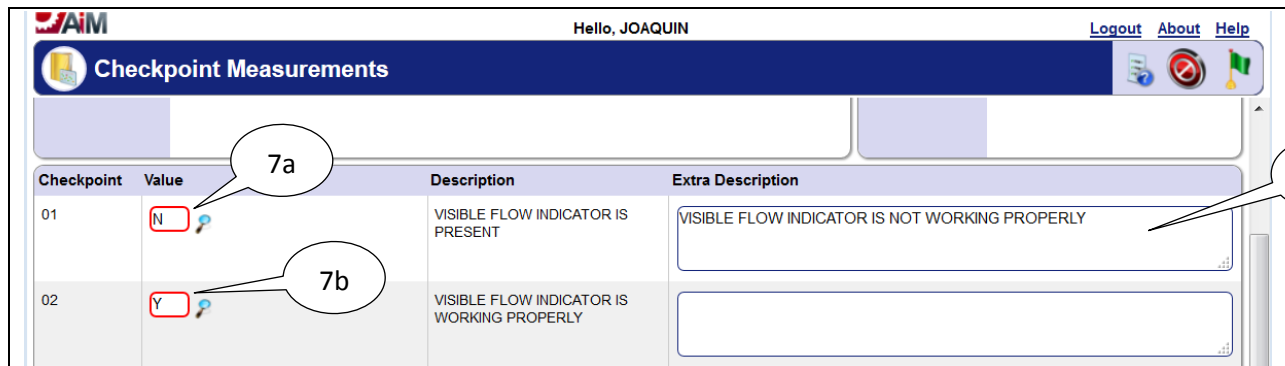
3. Click on the **Edit**  icon



4. Click on the **View: Select** drop-down arrow
 5. Click on **Checkpoint Measurements**



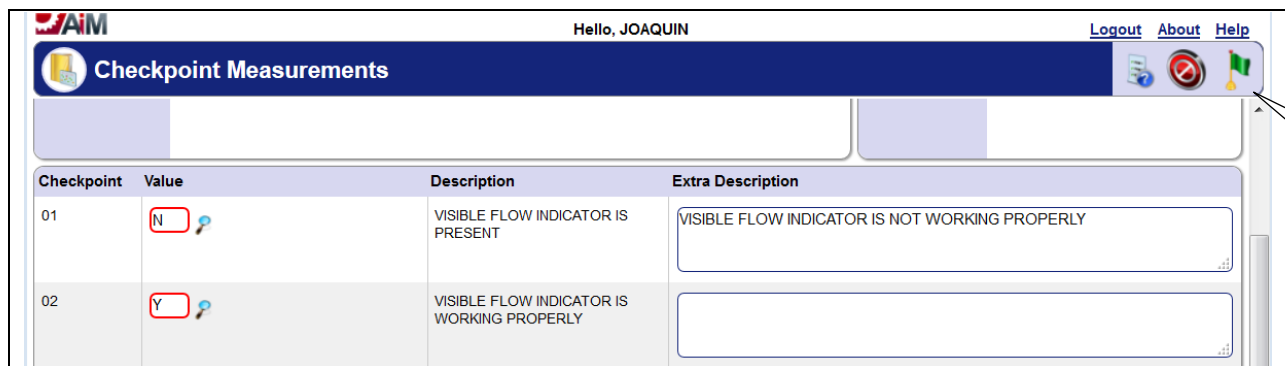
6. If **search** 🔍 icon is present, the icon may be selected to view available values, or the value can be entered directly into text box if options are already known.



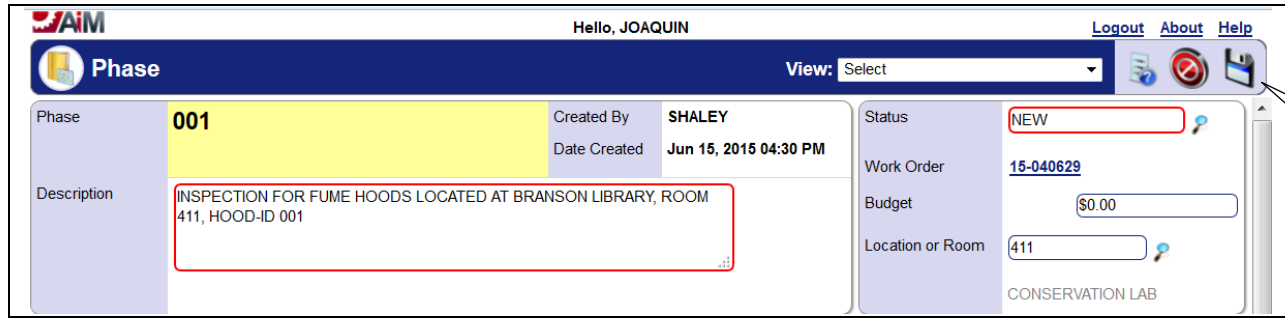
7. Click on the appropriate code (in this case the user has two options):

- a. N
- b. Y


8. Extra Description is required when checkpoint value is 'N'.

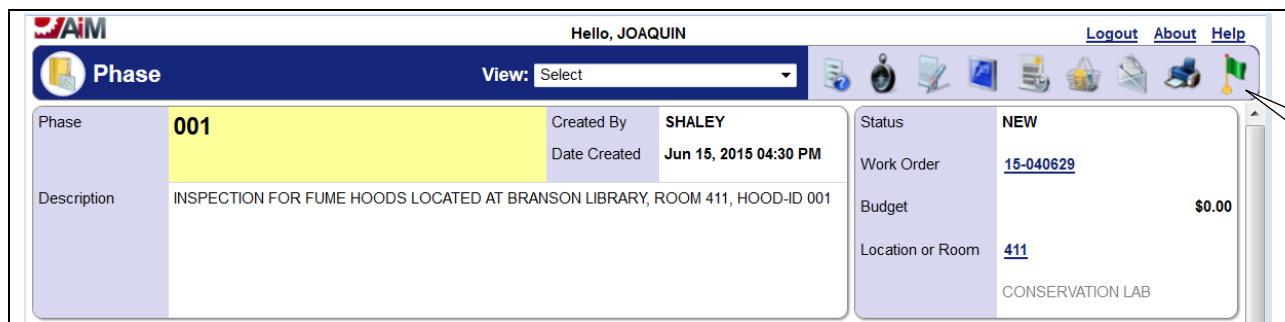


9. Click on the **Done** 🇳🇪 icon




10

10. Click on the **Save**  icon



11

11. Click on the **Done**  icon

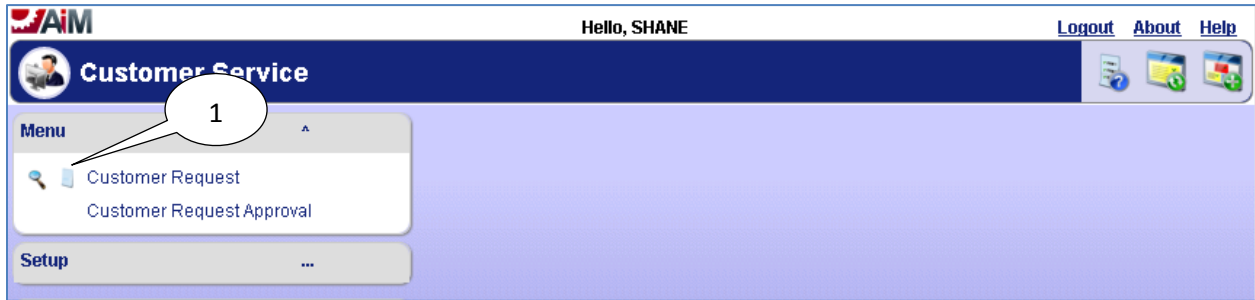
List of Checkpoints from PM Standards

The full list of eight *Checkpoints* for Fume Hoods is illustrated below (anything with a **Measurement** set to “Yes” require a value to be recorded for that *Checkpoint*):

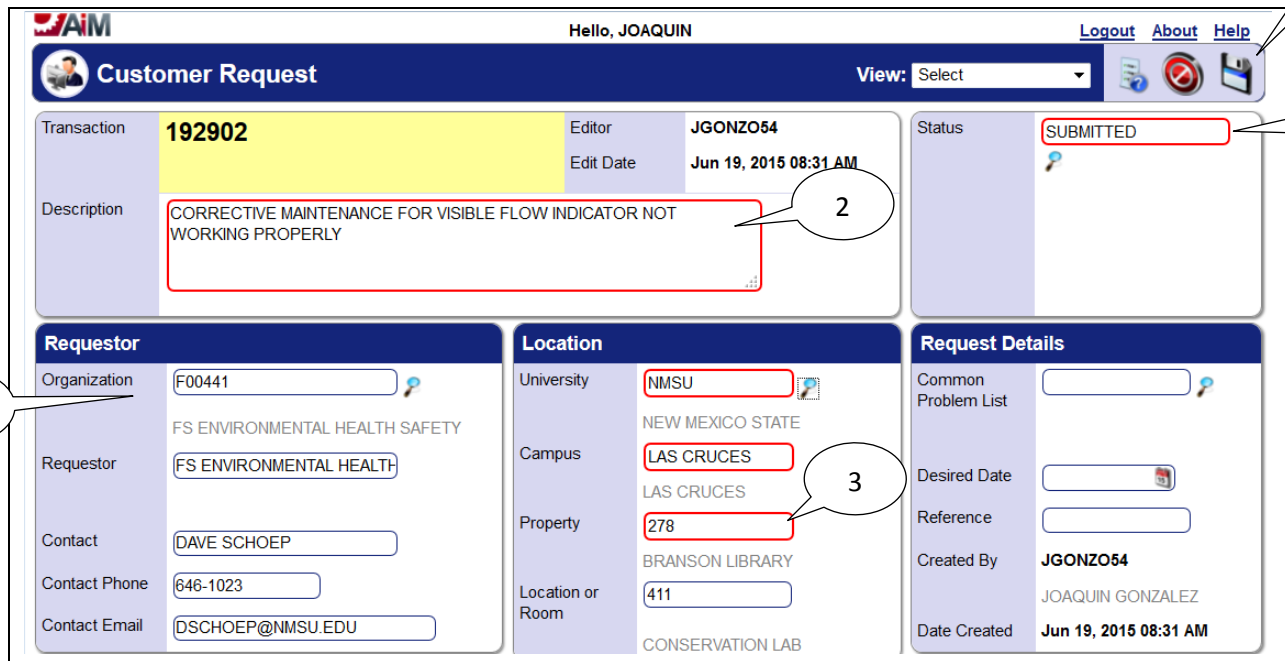
Checkpoint	Description	Measurement
<u>01</u>	VISIBLE FLOW INDICATOR IS PRESENT	Yes
<u>02</u>	VISIBLE FLOW INDICATOR IS WORKING PROPERLY	Yes
<u>03</u>	HOOD LIGHTS FIXTURES ARE OPERATIONAL	Yes
<u>04</u>	SASH IS WORKING PROPERLY (MOVES FREELY, NO CRACKS, ETC.)	Yes
<u>05</u>	HOUSING IS FREE OF PHYSICAL DAMAGE	Yes
<u>06</u>	VISIBLE DUCTWORK APPEARS TO BE INTACT (NO CORROSION, SIGNS OF LEAKING, FRESH STAINS, ETC.)	Yes
<u>07</u>	FACE VELOCITY FLOW IS WITHIN ACCEPTABLE LIMITS (80-150 LFPM)	Yes
<u>08</u>	RECORD AVERAGE FACE VELOCITY FLOW	Yes

Completing Corrective Maintenance

A *corrective maintenance work order* will be created by the shop supervisor for the shop technician that discovered the need while performing preventive maintenance on the asset. All time and materials for the corrective maintenance must be charged against the *corrective maintenance work order* and **NOT** the *preventive maintenance work order*. Please see steps below for creating a *corrective maintenance work order*:



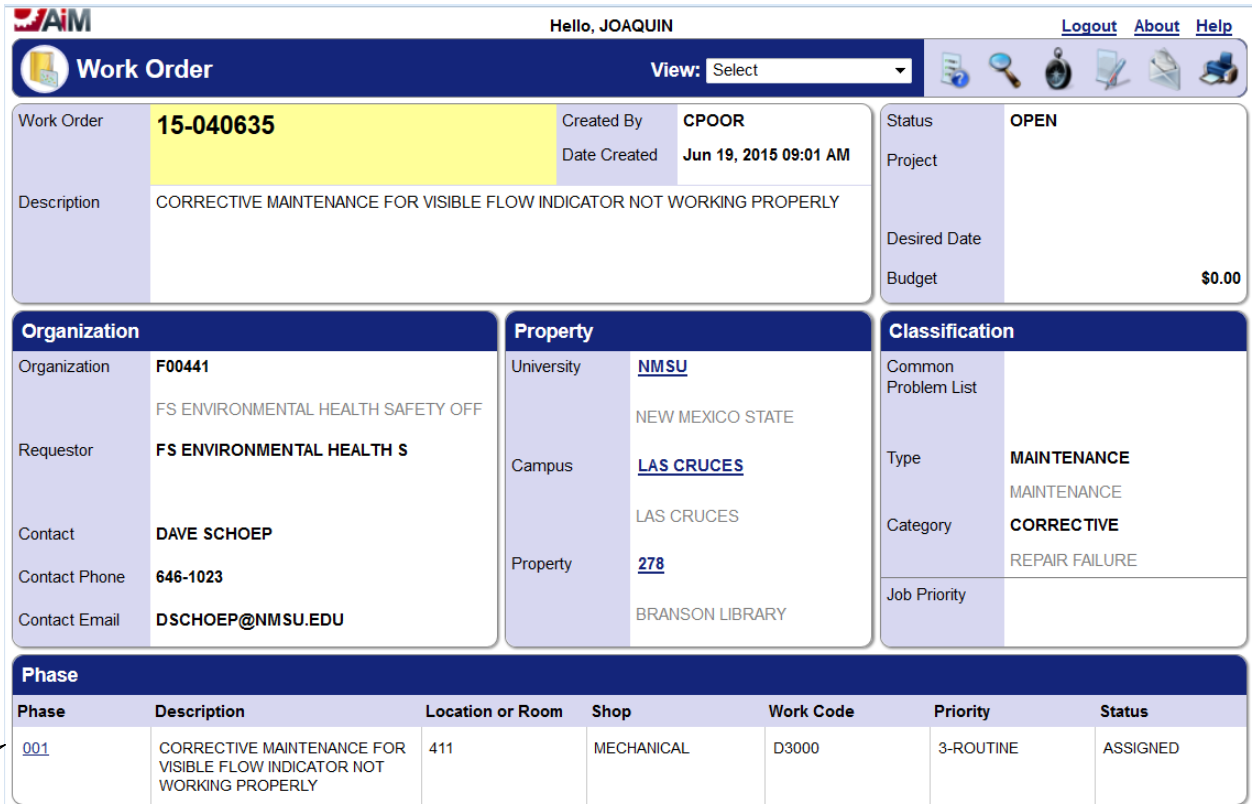
1. Create a new customer request by selecting the **new** icon.



2. Enter **Description**.
3. Enter the section in the **Property** field of the Building Number where the Fume Hood is located.
4. Enter **Status** (should be auto-populated as “SUBMITTED”).
5. Enter **Requestor** information.
6. Click the **save** icon.




7. Once the **Work Order** has been created from the **Customer Request**, the shop supervisor will need to navigate to the **Work Order**.



8. Select the **Phase** from the **Work Order**.

9

Phase		View: Select	
Phase	001	Created By	CPOOR
		Date Created	Jun 19, 2015 09:01 AM
Description	CORRECTIVE MAINTENANCE FOR VISIBLE FLOW INDICATOR NOT WORKING PROPERLY		
Status	ASSIGNED		
Work Order	15-040635		
Budget			
Location or Room	411		
	CONSERVATION LAB		
Shop		Estimated Dates	
Shop	MECHANICAL	Estimated Start	
	F00471: MECHANICAL SHOP (FORMERLY	Estimated End	
Primary Person		Actual Start	
		Actual End	
Priority	3-ROUTINE	Percent Complete	
Equipment/Asset		Capital Project	
Type		Capital Project	
Asset			
Asset Group		Component Group	
Failure Code			
Template		Component	
PM Standards			
Contractor			
		Contract Type	
Shop Person			
Shop Person	Name	Primary	Certified
		Assigned By	Assigned Date

9. Select the **edit**  icon.

The screenshot shows the AIM software interface for a Phase record. The top navigation bar includes the AIM logo, the user name "Hello, JOAQUIN", and links for "Logout", "About", and "Help". The main header displays "Phase" and a "View: Select" dropdown. The record details are as follows:

- Phase:** 001 (highlighted in yellow)
- Created By:** CPOOR
- Date Created:** Jun 19, 2015 09:01 AM
- Description:** CORRECTIVE MAINTENANCE FOR VISIBLE FLOW INDICATOR NOT WORKING PROPERLY
- Status:** ASSIGNED
- Work Order:** 15-040635
- Budget:** [Empty field]
- Location or Room:** 411 (CONSERVATION LAB)

The main content area is divided into several sections:

- Shop:** MECHANICAL (highlighted in red), F00471: MECHANICAL SHOP (FORMERLY), Primary Person, Priority: 3-ROUTINE (highlighted in red).
- Estimated Dates:** Estimated Start, Estimated End, Actual Start, Actual End, Percent Complete.
- Classification:** Funding Method: Shop, Work Code Group: UTILITIES, Work Code: D3000 (highlighted in red), Request Method.
- Equipment/Asset:** Type: Asset, Asset: FUMEH-278-411-001 (highlighted in red), Asset Group: FUMEH, Failure Code, Template, PM Standards. A callout bubble with the number "10" points to this field.
- Capital Project:** Capital Project, Component Group, Component.
- Contractor:** Contract Type.


At the bottom, there is a "Shop Person" section with a "Load Shop Person" button and a table with columns: Shop Person, Name, Primary, Certified, Assigned By, and Assigned Date.

10. Enter the asset for which the preventive maintenance was being performed when it was identified that corrective maintenance was needed.

The screenshot displays the AIM software interface for a Phase record. The top navigation bar includes the AIM logo, the user name 'Hello, JOAQUIN', and links for 'Logout', 'About', and 'Help'. The main content area is divided into several sections:

- Phase Header:** Phase ID '001', Created By 'CPOOR', Date Created 'Jun 19, 2015 09:01 AM', Status 'ASSIGNED', Work Order '15-040635', Budget, Location or Room '411' (CONSERVATION LAB).
- Description:** 'CORRECTIVE MAINTENANCE FOR VISIBLE FLOW INDICATOR NOT WORKING PROPERLY'.
- Shop:** Shop 'MECHANICAL', Primary Person, Priority '3-ROUTINE'.
- Estimated Dates:** Estimated Start, Estimated End, Actual Start, Actual End, Percent Complete.
- Classification:** Funding Method 'Shop', Work Code Group 'UTILITIES', Work Code 'D3000', Request Method.
- Equipment/Asset:** Type 'Asset', Asset 'FUMEH-278-411-001', Asset Group 'FUMEH', Failure Code, Template, PM Standards.
- Capital Project:** Capital Project, Component Group, Component.
- Contractor:** Contract Type.

At the bottom, there is a 'Shop Person' table with columns for Name, Primary, Certified, Assigned By, and Assigned Date. A 'Load Shop Person' button is located in the top right of this section. A callout bubble with the number '11' points to a save icon in the top right corner of the main interface.

11. Select the save  icon.