CTS User Manual

IH – Ventilation and Local Exhaust Controls

Last Edited: 21 September 2022

Table of Contents

Introduction

The CTS Industrial Hygiene (IH) **Ventilation and Local Exhaust Controls Program** provides a user-friendly system to maintain your IH ventilation equipment inventory. Using this software correctly can help ensure fast, easy, and secure access to equipment inventory records.

With IH Ventilation and Local Exhaust Controls Program, your organization will be able to save time and money by reducing inventory control discrepancies. This program is designed to inventory and track the calibration or use status of equipment used as part of your exposure monitoring program.
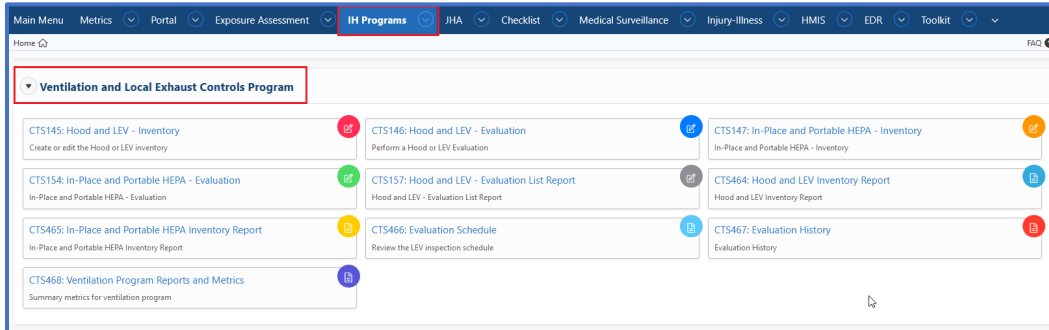
The *CTS Industrial Hygiene (IH) Ventilation and Local Exhaust Controls Program* consists of three main areas:
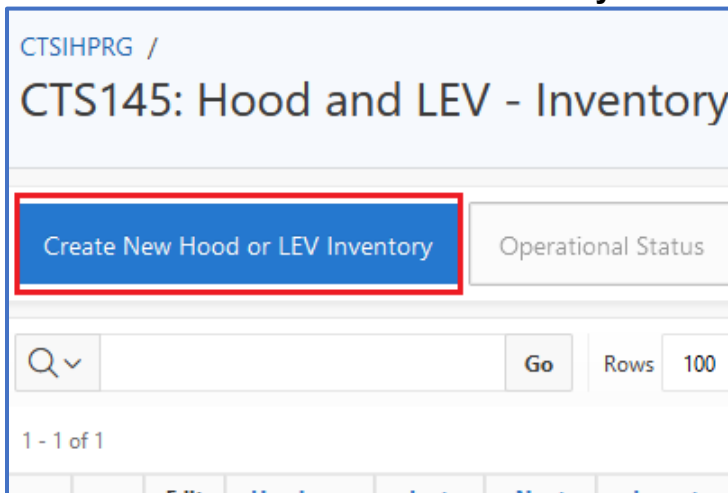
- Inventory
- Evaluation
- Reports

Chapter 1 - CTS145: Hood and LEV - Inventory
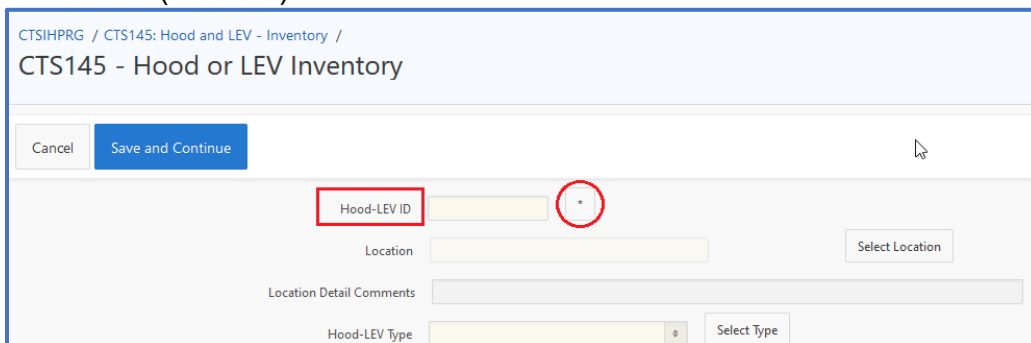## Create New Hood or LEV Inventory

From **IH Programs** menu, click **CTS145: Hood and LEV - Inventory** button.

Click **Create New Hood or LEV Inventory** button.

Click the * (asterisk) button next to the *Hood-LEV ID* field to autofill an ID.

Click **Select Location** button.

Click the blue **Select** text to select a location.

	Location ↑≡	Loc-2	Loc-3	Location Name	Location Category	Code	Site	Company
Select	AREA 1	-	-	-	OFFICE AREA	F000004	SITE	COMPANY
Select	AREA 1	BUILDING 1	-	-	OFFICE AREA	F000003	SITE	COMPANY
Select	AREA 1	BUILDING 1	ROOM 1	-	OFFICE AREA	F000002	SITE	COMPANY
Select	AREA 1	BUILDING 1	ROOM 2	-	OFFICE AREA	F000005	SITE	COMPANY

Click **Select Type** button.

Click the blue **Select** text to select a type.

	Hood-LEV Type
Select	AUXILIARY AIR (FUME HOOD)
Select	CALIFORNIA HOOD
Select	CANOPY HOOD
Select	CONSTANT AIR VOLUMNE FUME HOOD (CAV)

Use pull-down menu to select *Measurement Type*.
Use pull-down menu to select the *Inspection Checklist*.
Enter text into *Facility Designation ID*, *Fan ID*, *Sash Height*, *Sash Width*, and *Current Operational Notes* text fields.

Use pulldown menu to select *Manufacturer-Model*.

Click **Select Org** button.

Click blue **Select** text to select an organization.

	Org Description	Org IDL1	Org IDL2	Org IDL3	Org IDL4	Org IDL5	Org IDL6
Select	ADMIN	ADMIN	-	-	-	-	-
Select	IHSL1	IHSL1	-	-	-	-	-
Select	ITL1	ITL1	-	-	-	-	-
Select	MAINL1	MAINL1	-	-	-	-	-
Select	MEDICAL	MEDICAL	-	-	-	-	-
Select	OPL1	OPL1	-	-	-	-	-

1 - 6 of 6

Click **Save and Continue** button.

CTSIHPRG / CTS145: Hood and LEV - Inventory /

CTS145 - Hood or LEV Inventory

Cancel   Save and Continue

Hood-LEV ID

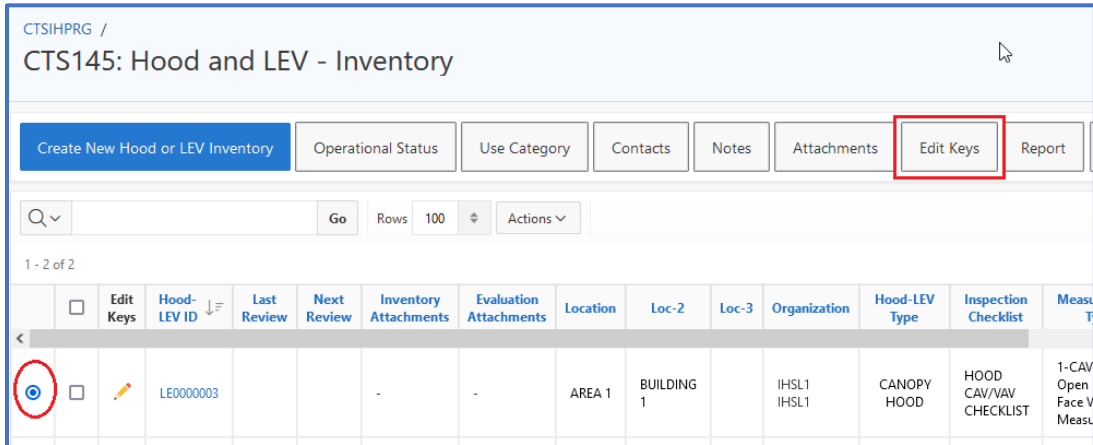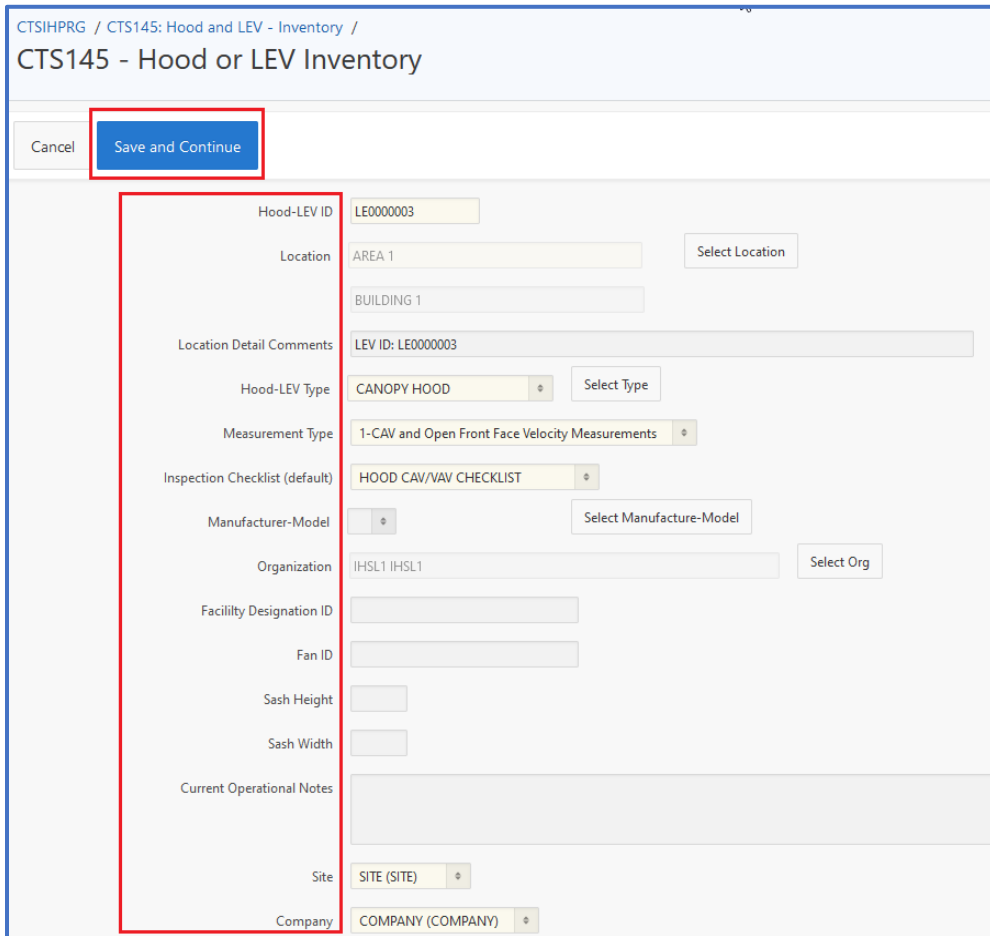| Field	Description
Hood-LEV ID	Auto generated ID number
Location	Location where inventory item is utilized
Location Detail Comments	Details about location
Hood-LEV Type	Type of hood/LEV
Measurement Type	Type of measurement
Inspection Checklist (default)	Inspection checklist type (Hood/LEV)
Manufacturer-Model	Inventory item manufacturer/model
Organization	Organization where inventory item is utilized
Facility Designation ID	Optional ID number
Fan ID	Optional ID number
Sash Height	Optional measurement
Sash Width	Optional measurement
Current Operational Notes	Optional, additional notes

Edit Existing Inventory

Use radio button to select an inventory item.

Click **Edit Keys** button.

Edit inventory item details.

Click **Save and Continue** button.

Field	Description
Hood-LEV ID	Auto generated ID number
Location	Location where inventory item is utilized
Location Detail Comments	Details about location
Hood-LEV Type	Type of hood/LEV
Measurement Type	Type of measurement
Inspection Checklist (default)	Inspection checklist type (Hood/LEV)
Manufacturer-Model	Inventory item manufacturer/model
Organization	Organization where inventory item is utilized
Facility Designation ID	Optional ID number
Fan ID	Optional ID number
Sash Height	Optional measurement
Sash Width	Optional measurement
Current Operational Notes	Optional, additional notes

Print Inventory Report

Click any *Hood-LEV ID* hot link to view its report in a new browser tab.

Close browser tab when finished viewing report.

Inventory Details Edit

Click the radio button of an inventory item in the grid to select it.

Click **Operational Status**, **Use Category**, **Contacts**, **Notes**, or **Attachments** button. Clicking on the desired button which will display add/edit options.
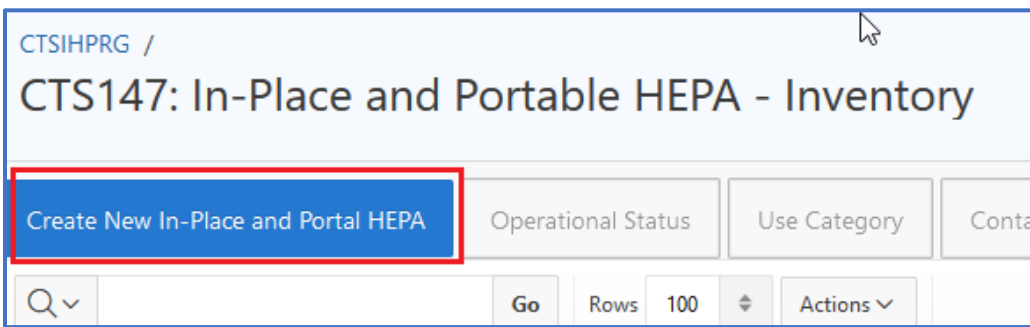

Click *CTSIHPRG /* breadcrumb to return to IH Programs menu.

Chapter 2 – CTS147: In-Place & Portable HEPA - Inventory
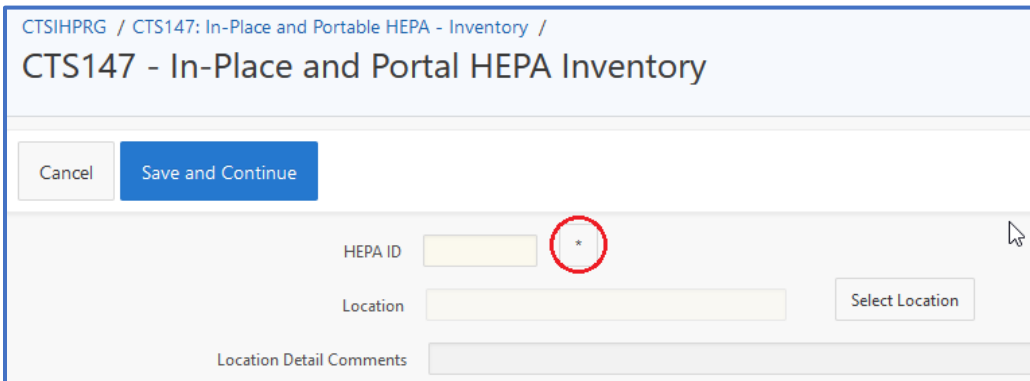
Create New In-Place and Portable HEPA Inventory

Click **CTS147: In-Place and Portable HEPA - Inventory** button.
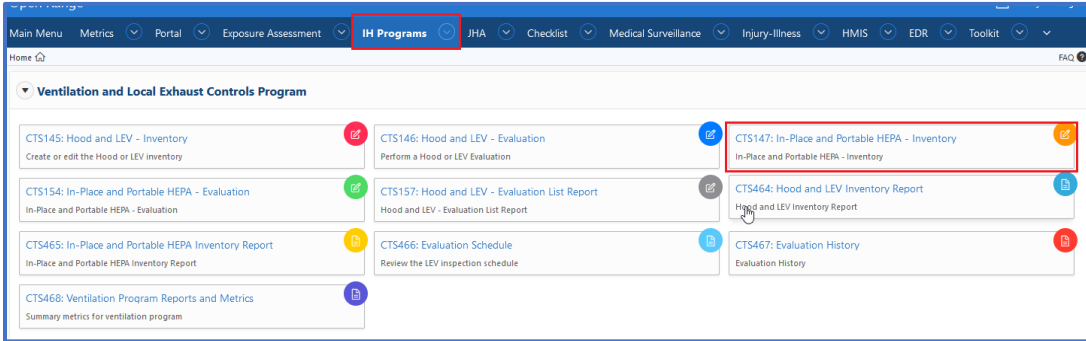
Click **Create New In-Place and Portable HEPA** button.

Click the * (asterisk) button next to the *Hood-LEV ID* field to autofill an ID.

Click **Select Location** button.

Click the blue **Select** text to select a location.

	Location ↑≛	Loc-2	Loc-3	Location Name	Location Category	Code	Site	Company
Select	AREA 1	-	-	-	OFFICE AREA	F000004	SITE	COMPANY
Select	AREA 1	BUILDING 1	-	-	OFFICE AREA	F000003	SITE	COMPANY
Select	AREA 1	BUILDING 1	ROOM 1	-	OFFICE AREA	F000002	SITE	COMPANY
Select	AREA 1	BUILDING 1	ROOM 2	-	OFFICE AREA	F000005	SITE	COMPANY

Click **Select Type** button.

Click blue **Select** text to select HEPA Type.

	HEPA Type
Select	FUME EXTRACTOR
Select	IN-PLACE ENGINEERED
Select	IN-PLACE FIELD FABRICATED
Select	IN-PLACE PORTABLE ON BLOCKS

Use pull-down menu to select *Measurement Type*.
Use pull-down menu to select the *Inspection Checklist*.
Enter text into *Facility Designation ID*, *Fan ID*, *Sash Height*, *Sash Width*, and *Current Operational Notes* text fields.

Hood-LEV Type		Select Type
Measurement Type	1-CAV and Open Front Face Velocity Measurements	
Inspection Checklist (default)	HOOD CAV/VAV CHECKLIST	
Manufacturer-Model		Select Manufacture-Model
Organization		Select Org
Facility Designation ID		
Fan ID		
Sash Height		
Sash Width		
Current Operational Notes		

Use pulldown menu to select *Manufacturer and Model*.

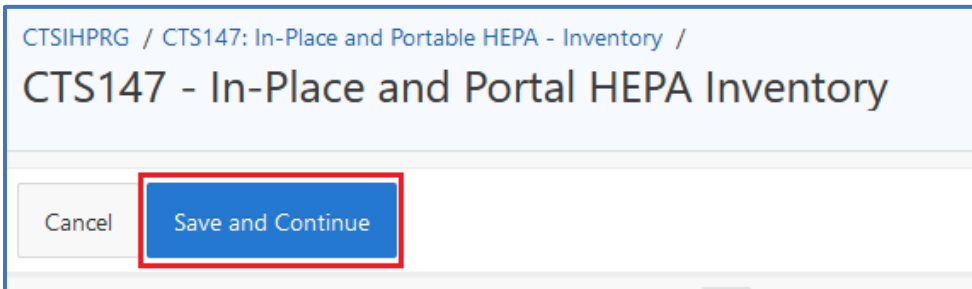|		
Location Detail Comments		
HEPA Type	IN-PLACE ENGINEERED	Select Type
Measurement Type	1-In-Place HEPA Inspection	
Inspection Checklist (default)	IN-PLACE HEPA SYSTEM CHECKLIST	
Manufacturer and Model		Select Manuf and Model
Organization		Select Org
Fan ID		

Click **Select Org** button.

Click blue **Select** text to select an organization.

	Org Description	Org IDL1	Org IDL2	Org IDL3	Org IDL4	Org IDL5	Org IDL6
Select	ADMIN	ADMIN	-	-	-	-	-
Select	IHSL1	IHSL1	-	-	-	-	-
Select	ITL1	ITL1	-	-	-	-	-
Select	MAINL1	MAINL1	-	-	-	-	-
Select	MEDICAL	MEDICAL	-	-	-	-	-
Select	OPL1	OPL1	-	-	-	-	-

1 - 6 of 6

Click **Save and Continue** button.

CTSIHPRG / CTS147: In-Place and Portable HEPA - Inventory /

CTS147 - In-Place and Portal HEPA Inventory

Cancel   Save and Continue

Field	Description
HEPA ID	Auto generated ID number
Location	Location where inventory item is utilized
Location Detail Comments	Details about location
HEPA Type	Type of HEPA
Measurement Type	In-place or portable

Inspection Checklist (default)	Inspection checklist type (In-place/portable)
Manufacturer and Model	Inventory item manufacturer/model
Organization	Organization where inventory item is utilized
Fan ID	Optional ID number
Current Operational Notes	Optional, additional notes

Edit Existing Inventory

Click radio button to select an inventory item.

Click **Edit Keys** button.

CTSIHPRG /
CTS531: Equipment Model

Create New Equipment Model | Select Existing Model to Edit | Attachments | Edit Keys | Report | Delete

< Previous | Selected Item | Calib and Other Events | Reminders | Other | Next >

Selected Item: No Item Selected - Please Create or Select a Record
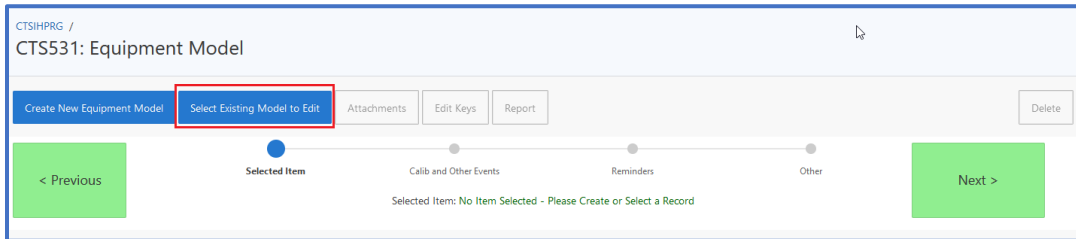
Click blue **Select** text to choose a model.

< Return Without Selection

| Q ⌄ | | Go | Rows 100 ⇕ | Actions ⌄ |

1 - 2 of 2

	Manufacturer	Model of Equipment	Category	Type	Model Status	Hide	Consumable Flag	# Recall Events	# Equipment
Select	SSSSSSSSS	AAAA	AIR	CALIB	APPROVED	-	-	1	1
Select	SSSSSSSSS	DDDDDDD	AIR	SAMPLE	APPROVED	-	-	1	1

1 - 2 of 2
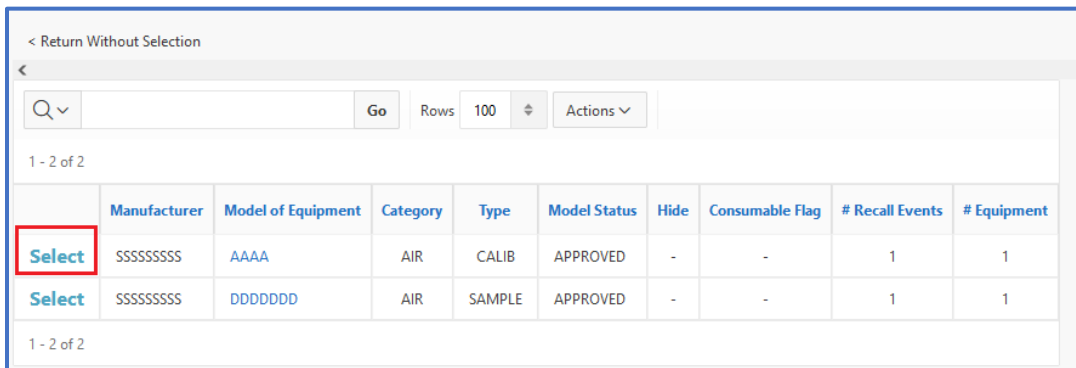
Click **Edit Keys** button.
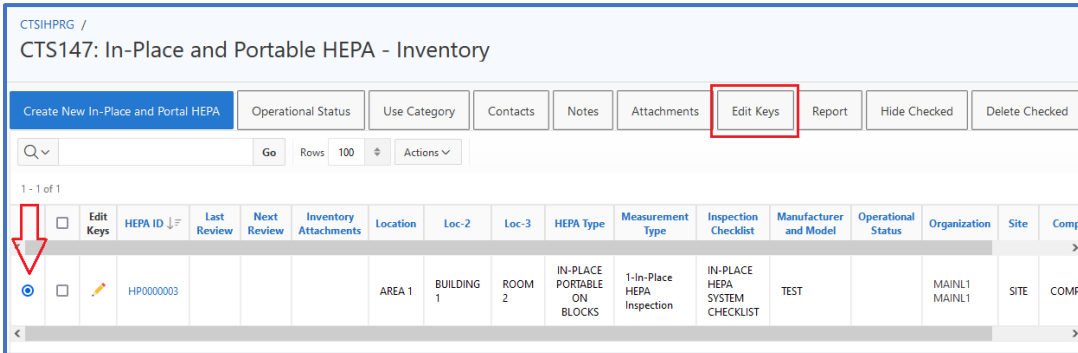
Add/edit inventory details.

Click **Save and Continue** button.

Field	Description
HEPA ID	Auto generated ID number
Location	Location where inventory item is utilized
Location Detail Comments	Details about location
HEPA Type	Type of HEPA
Measurement Type	In-place or portable
Inspection Checklist (default)	Inspection checklist type (In-place/portable)
Manufacturer and Model	Inventory item manufacturer/model
Organization	Organization where inventory item is utilized
Fan ID	Optional ID number
Current Operational Notes	Optional, additional notes

Print Inventory Report

Click any *HEPA ID* hot link to view its report in a new browser tab.

Close browser tab when finished view report.

Inventory Details Edit

Click the radio button of an inventory item in the grid to select it.

Click **Operational Status**, **Use Category**, **Contacts**, **Notes**, or **Attachments** button. Clicking on the desired button which will display add/edit options.

Click *CTSIHPRG /* breadcrumb to return to IH Programs menu.

Chapter 3 – CTS146: Hood and LEV - Evaluation

Create New Equipment Entry

Click **CTS146: Hood and LEV - Evaluation** button.
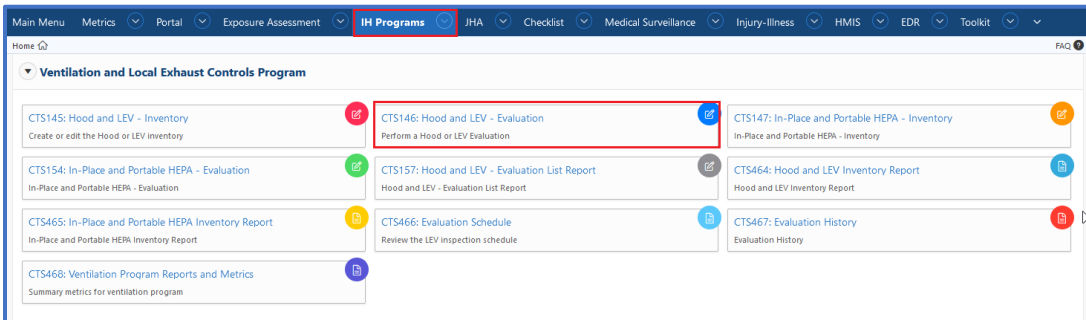
Click **Create New Evaluation** button.
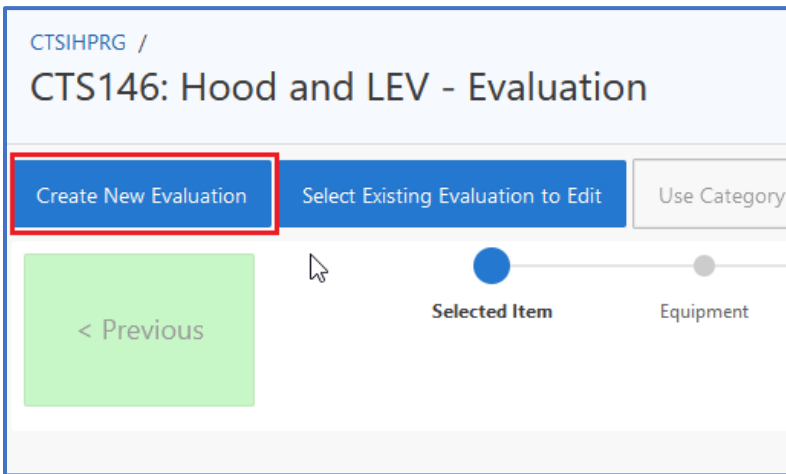
Click **Select Hood-LEV Item** button.

Click blue **Select** text to select an item.

Use calendar button to select *Date of Evaluation*.

Use pulldown menus to select *Evaluation Performed By* and *Evaluation Type*.

Click **Save and Continue** button.

Field	Description
Hood-LEV ID	Auto generated ID number
Date of Evaluation	Evaluation date
Evaluation Performed By	Person who performed evaluation
Evaluation Type	Type of evaluation

Selected Item

Click **Edit Keys** button to edit evaluation details shown on *Selected Item* screen.

Otherwise, click **Next** button.
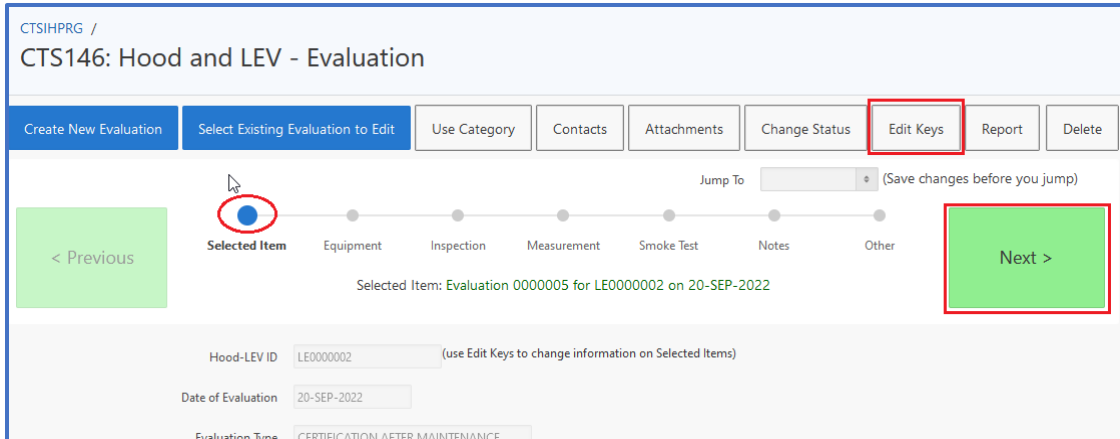
Equipment

On Equipment screen, click **Add-Edit Test Equipment** button.
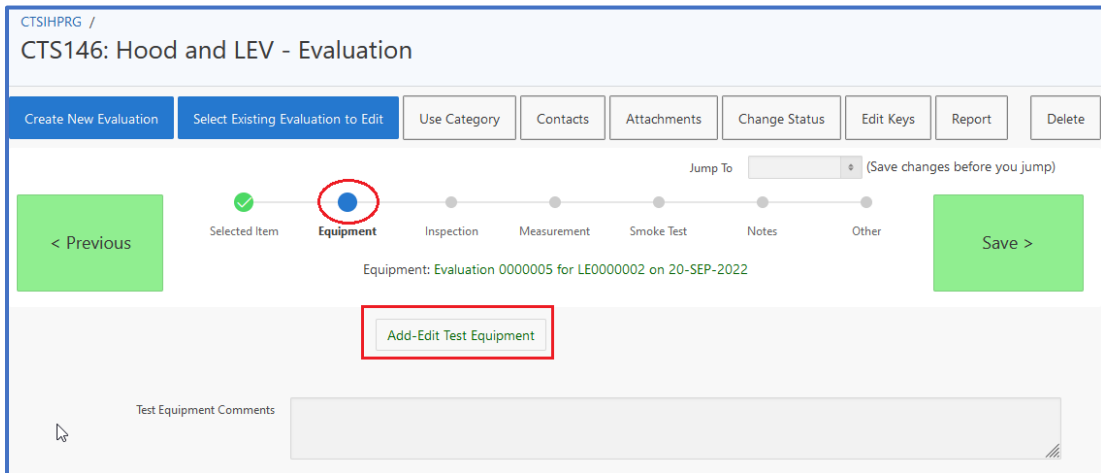
Click checkbox(es) to select equipment to add.

Click **Save and Continue** button.
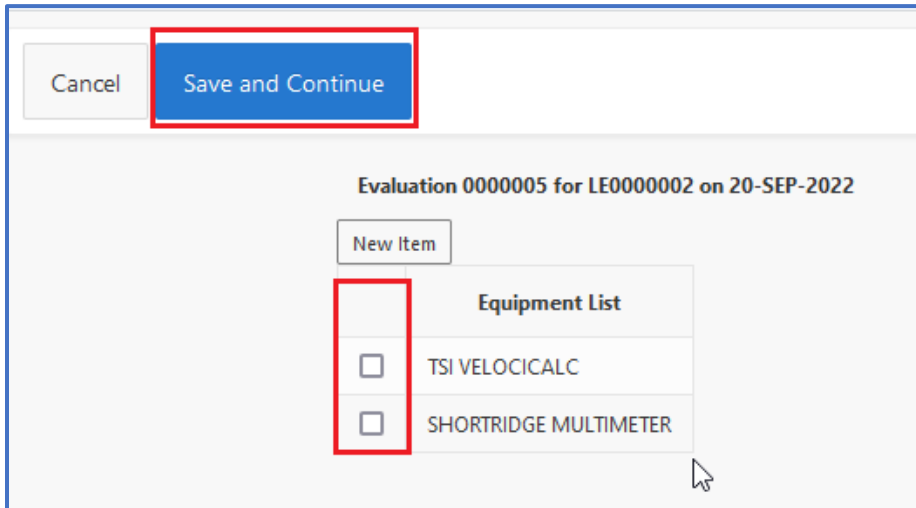
Enter text into *Test Equipment Comments* text area.
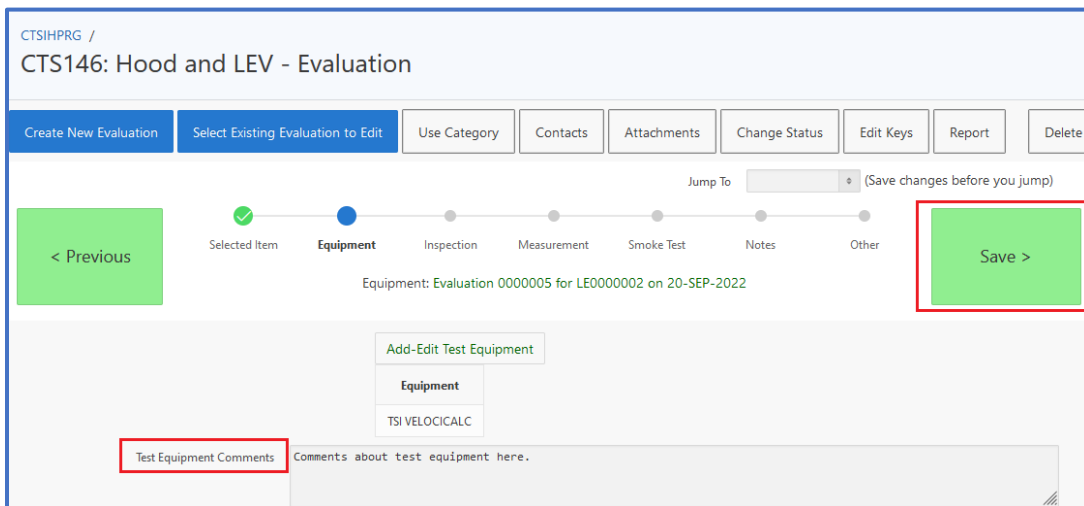
Click **Save** button.

Inspection

Click arrow to expand section 01.

Answer inspection questions.

Click **Save** button.

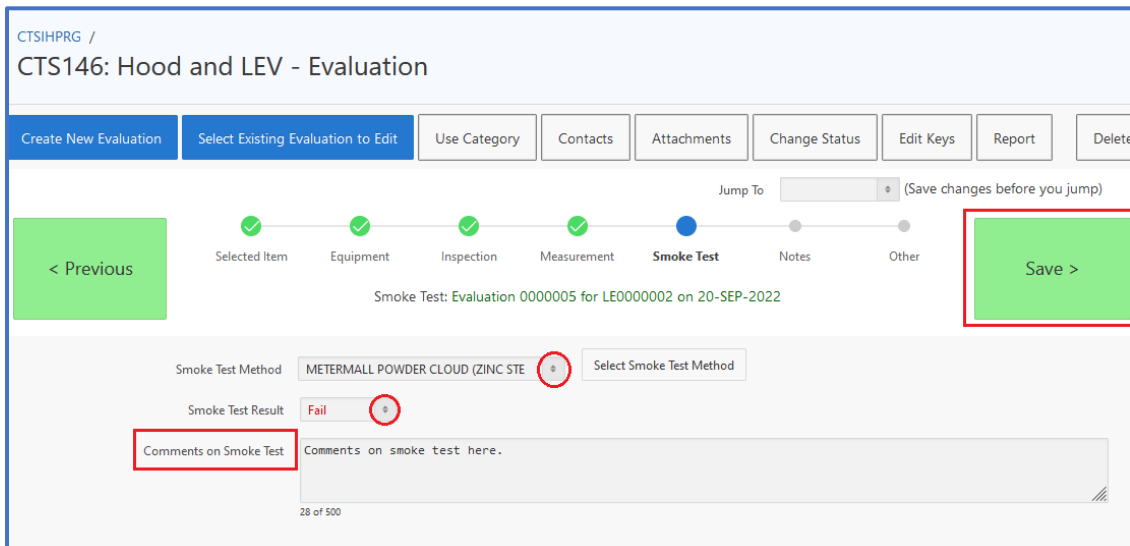## Measurement

Click arrow to expand CAV and Open Front Face Velocity Measurements section.

Enter measurement details into text boxes.
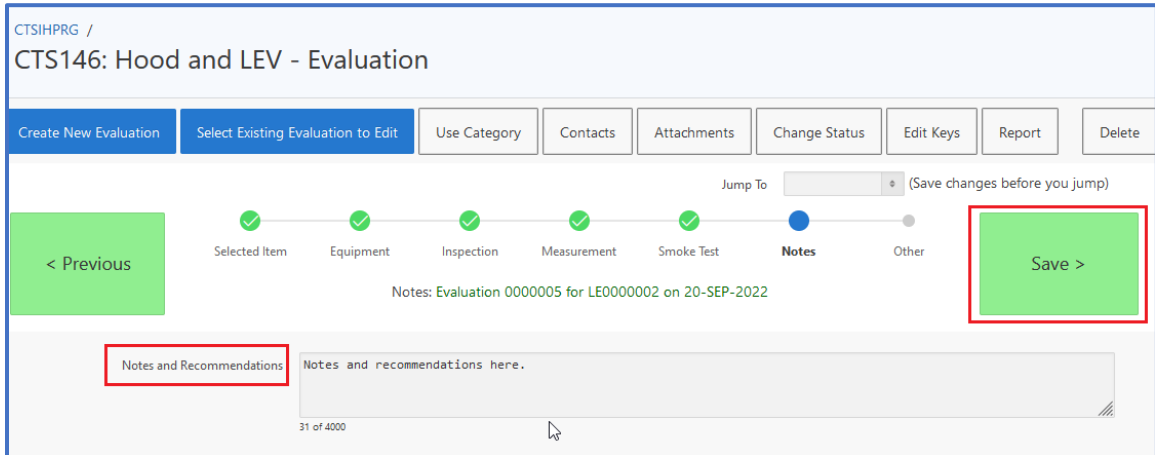
Click **Save** button.
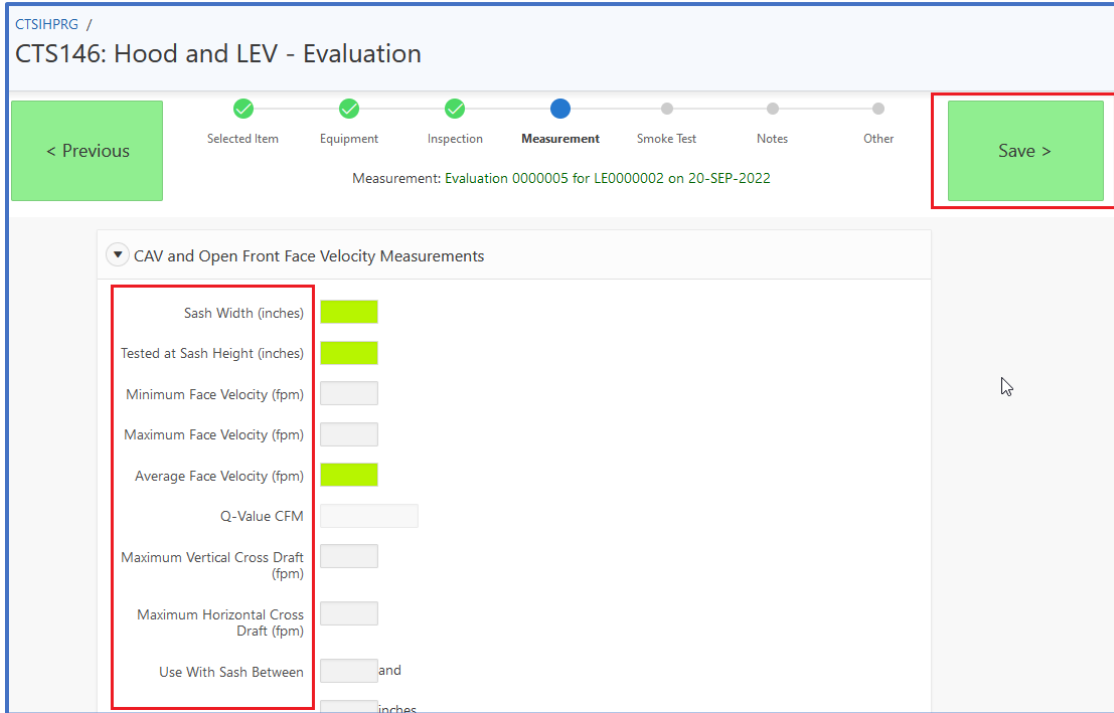
Smoke Test

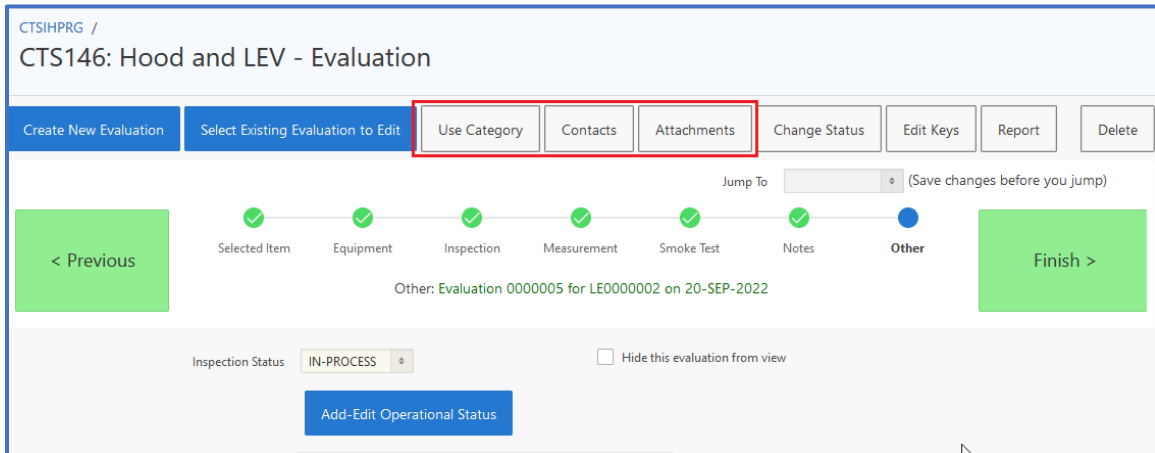Use pulldown menus to select *Smoke Test Method* and *Smoke Test Result*. Enter *Comments on Smoke Test*.

Notes

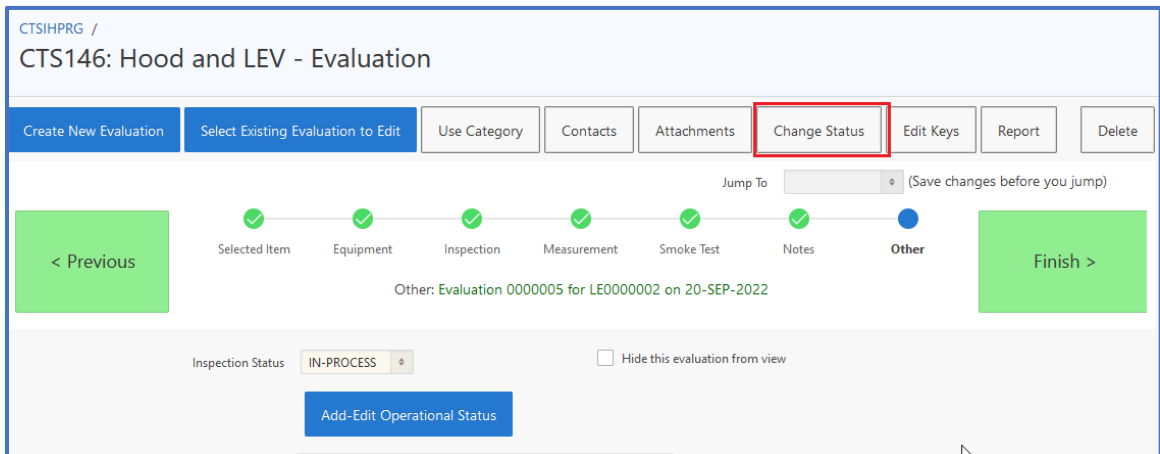Enter any notes or recommendations in text area.

Click **Save** button.

Review Fields

NOTE: Before you close your evaluation, review the **Use Category**, **Contacts**, and **Attachments** for the inventory item you have selected.
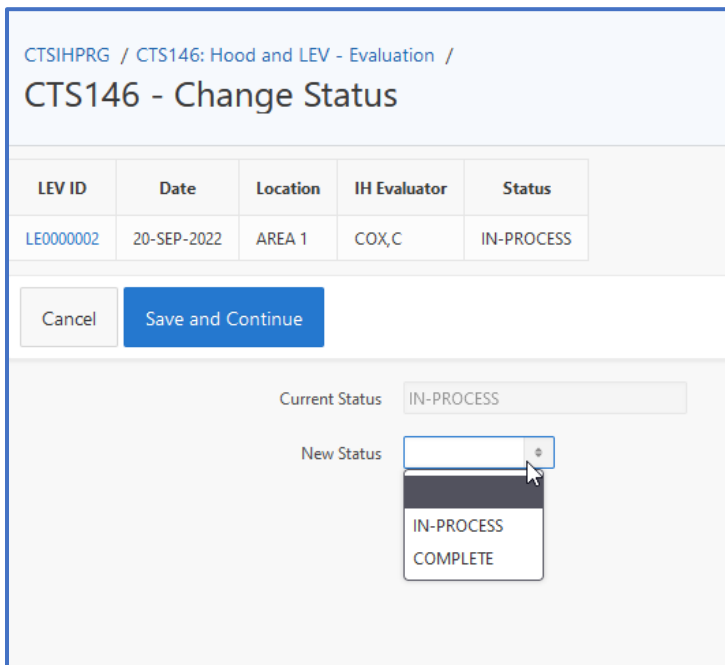
Change Status

<mark>BEFORE YOU CLICK THE FINISH BUTTON</mark>, you need to change the status of your evaluation. Click the **Change Status** button.
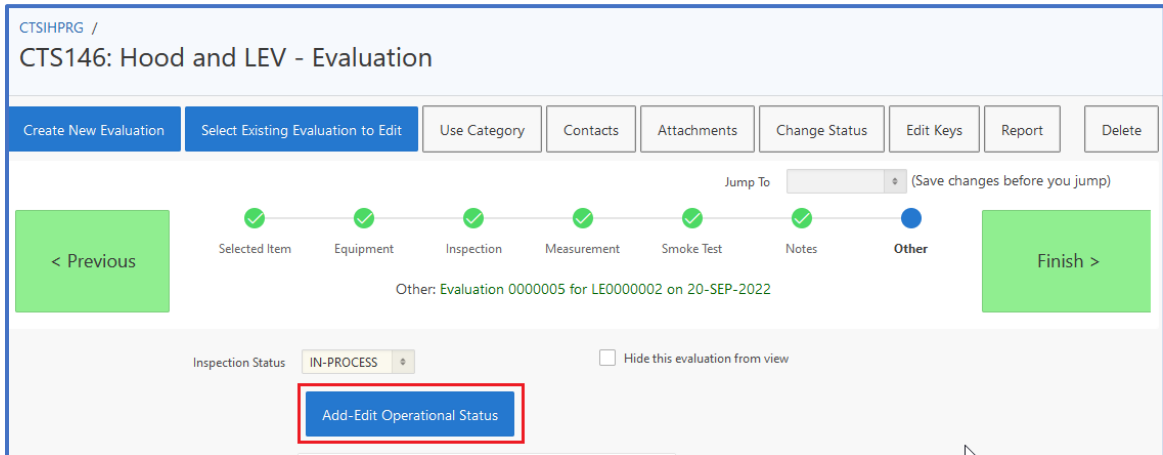

Use pulldown menu to change *New Status* from IN-PROCESS to COMPLETE.
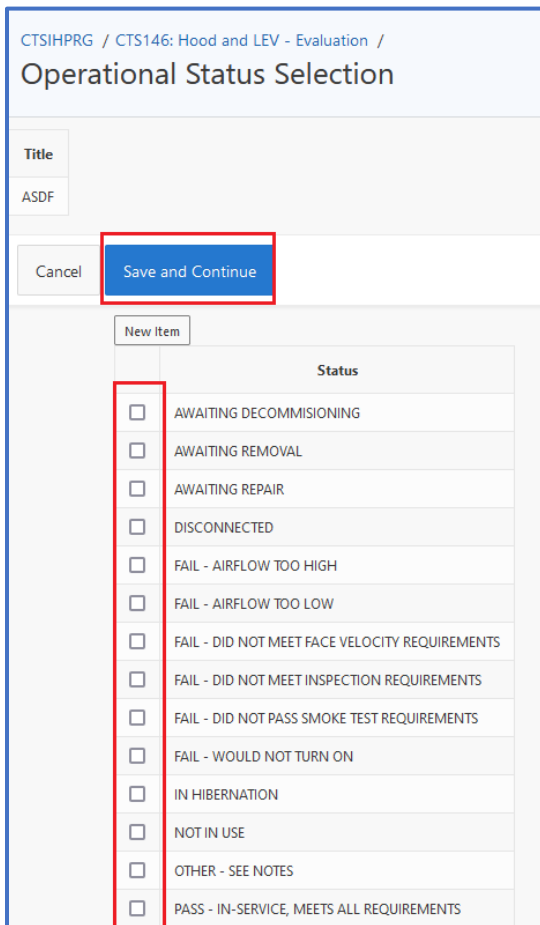
Click **Save and Continue** button.

Other

Click the **Add-Edit Operational Status** button.
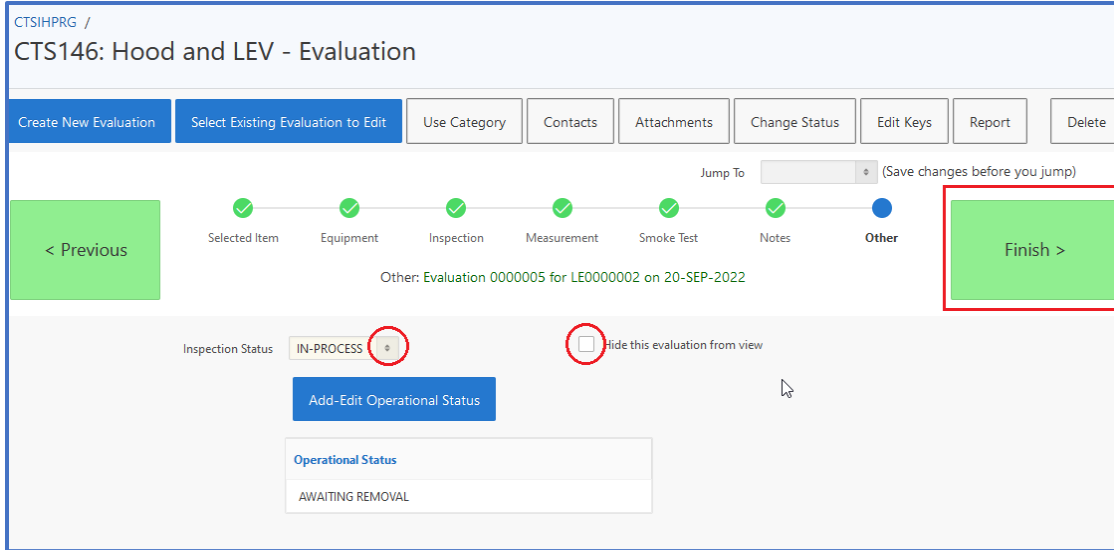

Click checkbox(es) to select *Status*.

Click **Save and Continue** button.

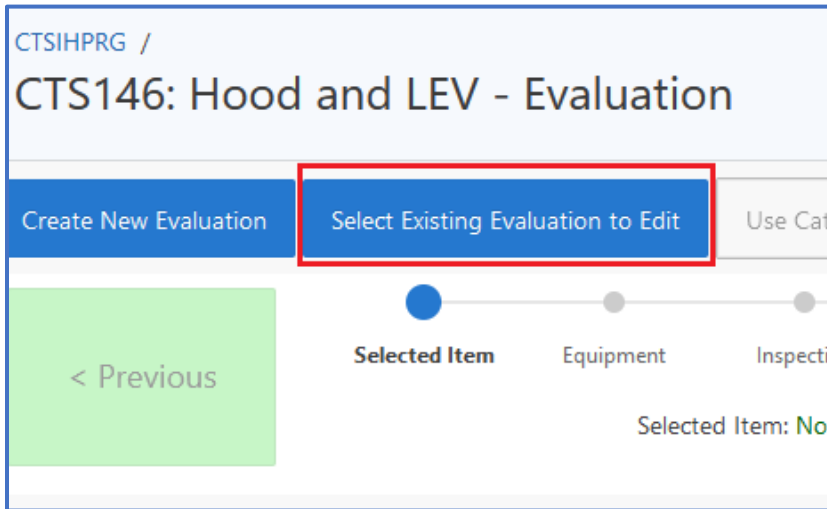Use pulldown menu to toggle *Inspection Status* from **In-Process** to **Complete**.

Optional: *Click checkbox to Hide this evaluation from view*.

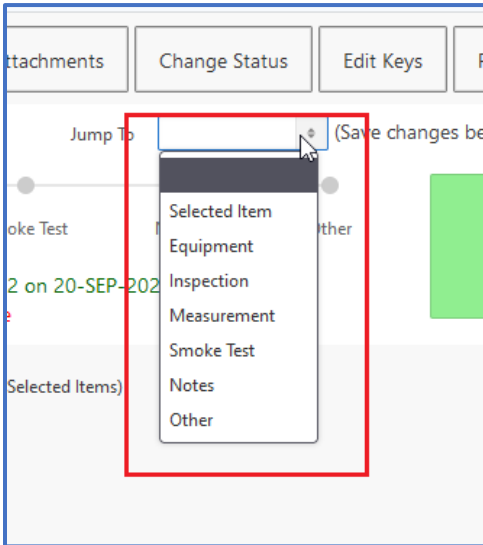Otherwise, click **Finish** button.

Edit Existing Evaluation
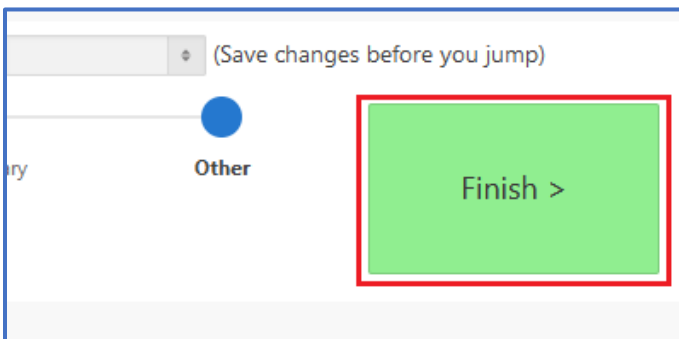
Click **Select Existing Evaluation to Edit** button.

Click blue **Select** text to select an evaluation.

|	Eval ID	Date	IH Evaluator	Badge	Evaluation Status	Hood-LEV ID	Hood-LEV Type	Location	Manufacturer and Model	Measurement Type	Operational Status	Evaluation Type
Select	0000005	20-SEP-2022	COX,C	CHARITY	COMPLETE	LE0000002	AUXILIARY AIR (FUME HOOD)	AREA 1	-	1-CAV and Open Front Face Velocity Measurements	AWAITING REMOVAL	CERTIFICATION AFTER MAINTENANCE

Use pulldown to navigate tabs via *Jump To* menu.

Edit evaluation. Jump to *Other* screen. Click **Finish** button.

Print Evaluation Report
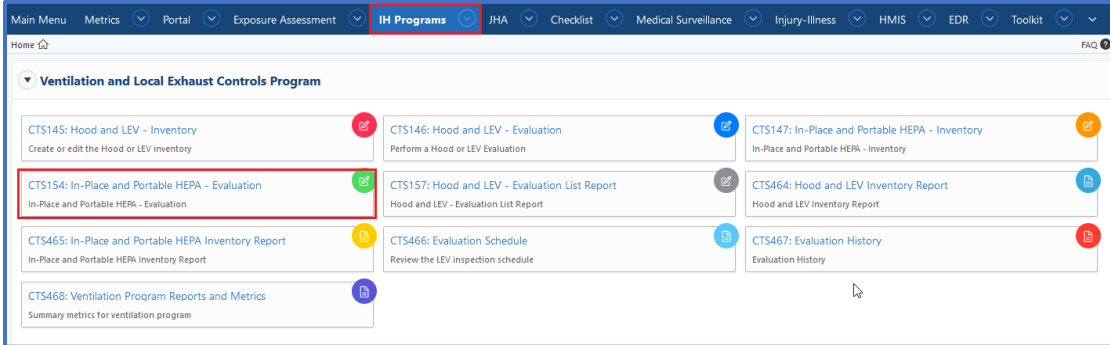
Select an existing evaluation.

Click **Report** button to view an evaluation report in a new browser tab.
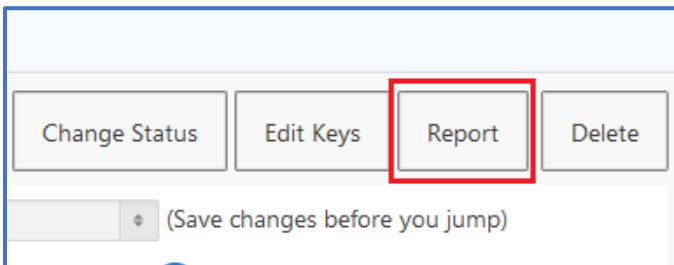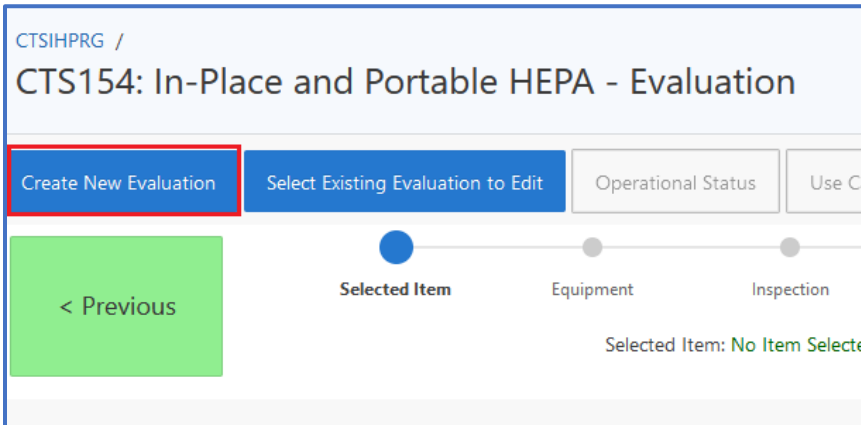
Chapter 4 – CTS154: In-Place and Portable HEPA - Evaluation
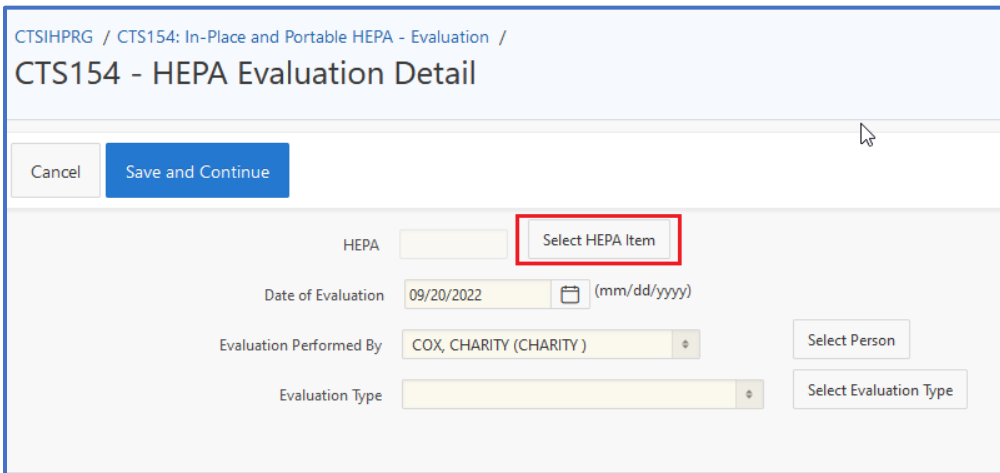
Create New Equipment Entry

Click **CTS154: In-Place and Portable HEPA - Evaluation** button.

Click **Create New Evaluation** button.

Click **Select HEPA Item** button.

Click blue **Select** text to select an item.

Use calendar button to select *Date of Evaluation*.

Use pulldown menus to select *Evaluation Performed By* and *Evaluation Type*.

| Field	Description
HEPA	Select HEPA Item
Date of Evaluation	Evaluation date
Evaluation Performed By	Person performing evaluation
Evaluation Type	Type of evaluation

Selected Item

Click **Edit Keys** button to edit evaluation details shown on *Selected Item* screen.
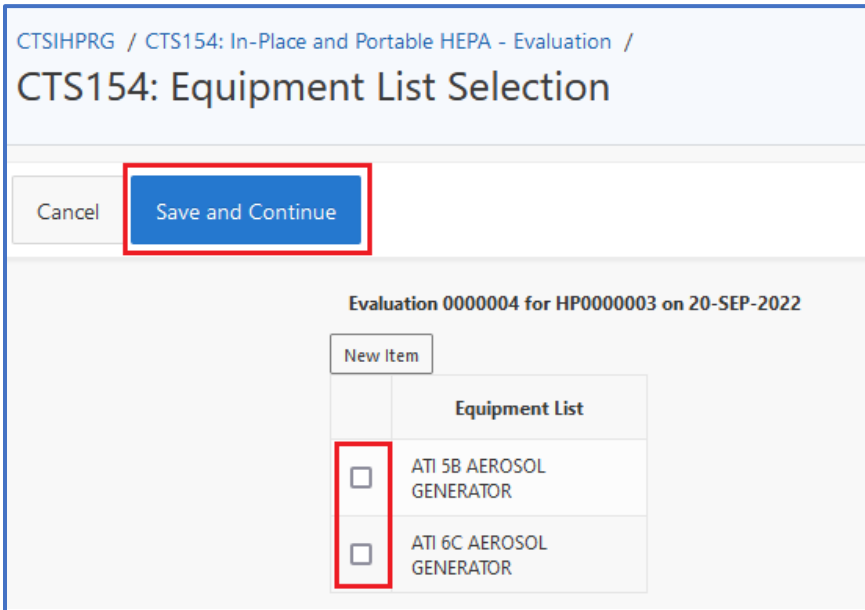
Otherwise, click **Next** button.
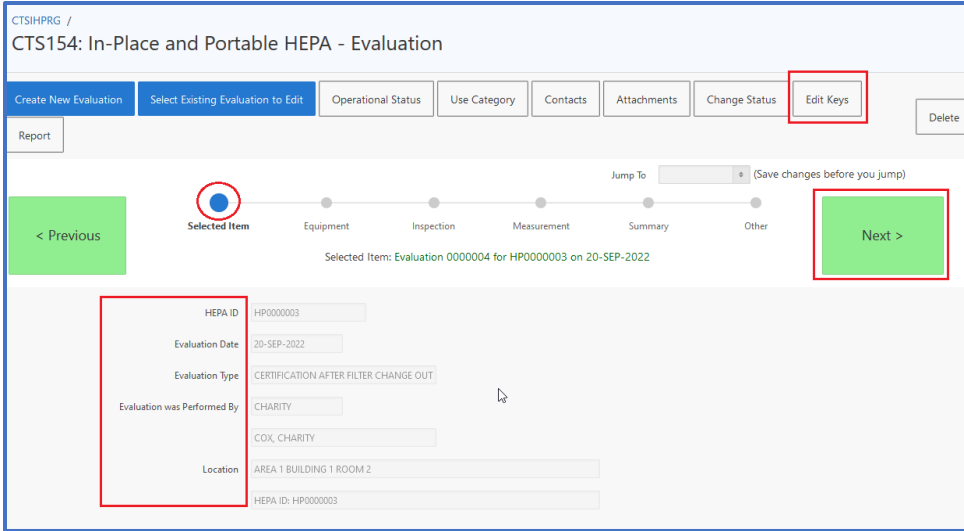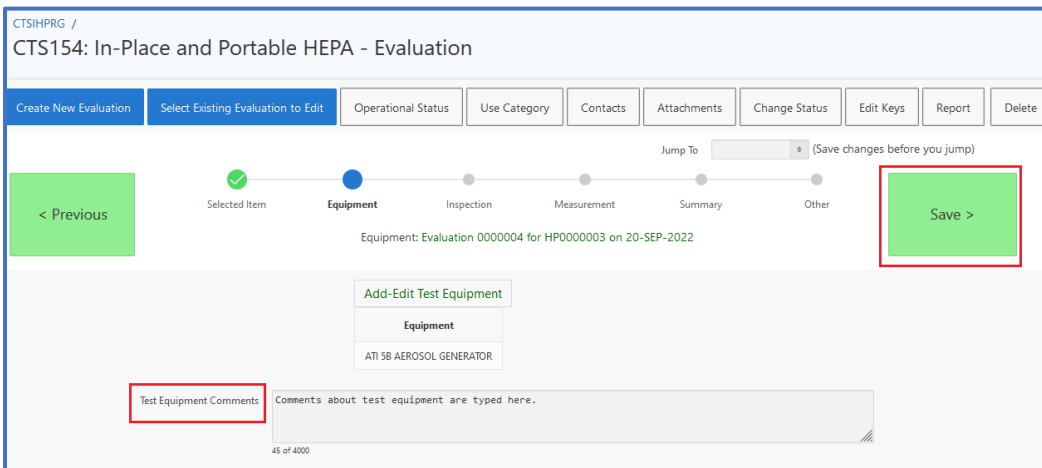

Equipment

On Equipment screen, click **Add-Edit Test Equipment** button.
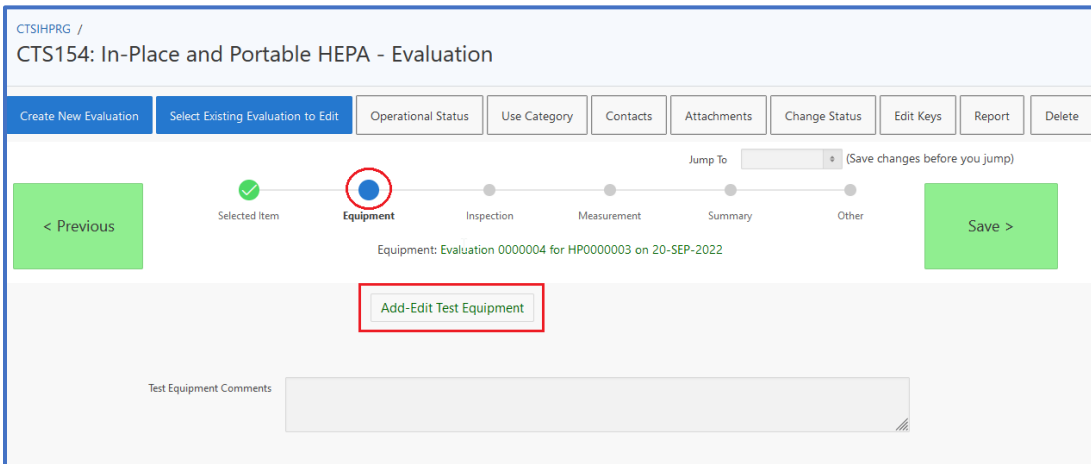
Click checkbox(es) to select equipment to add.

Click **Save and Continue** button.

Enter text into *Test Equipment Comments* text area.
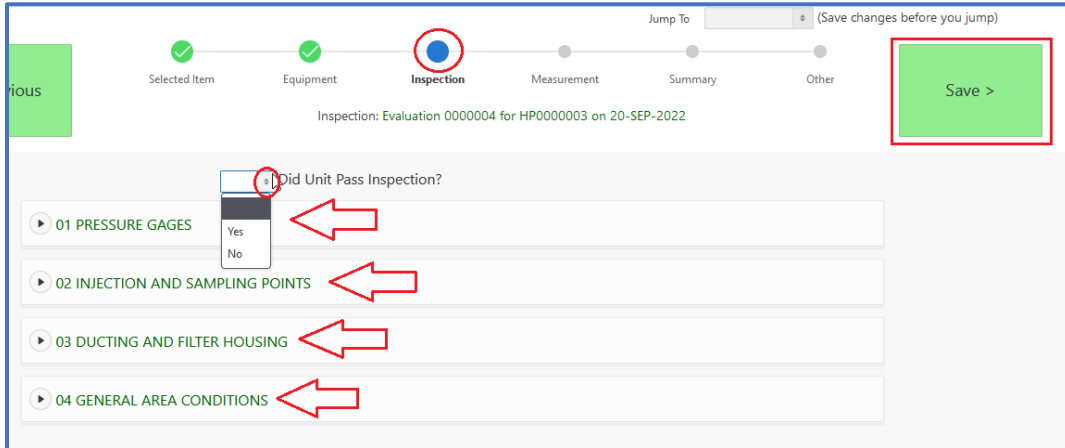
Click **Save** button.

Inspection

Use pull-down menu to answer *Yes/No* to "Did Unit Pass Inspection?".
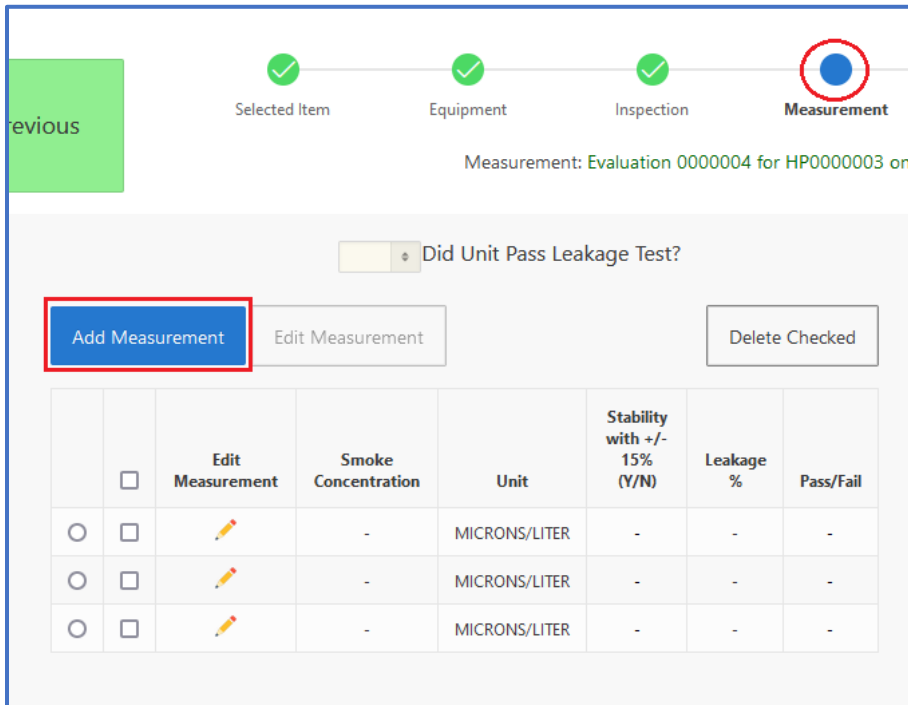
Click arrows to expand sections 01 – 04.

Use pull-down menus to answer questions.

Click **Save** button.

Measurement

Click **Add Measurement** button.

Enter text into *Smoke Concentration Level* and *Leakage %* text fields.
Use pull-down menu to select *Concentration Stability* and *Test Pass or Fail*.
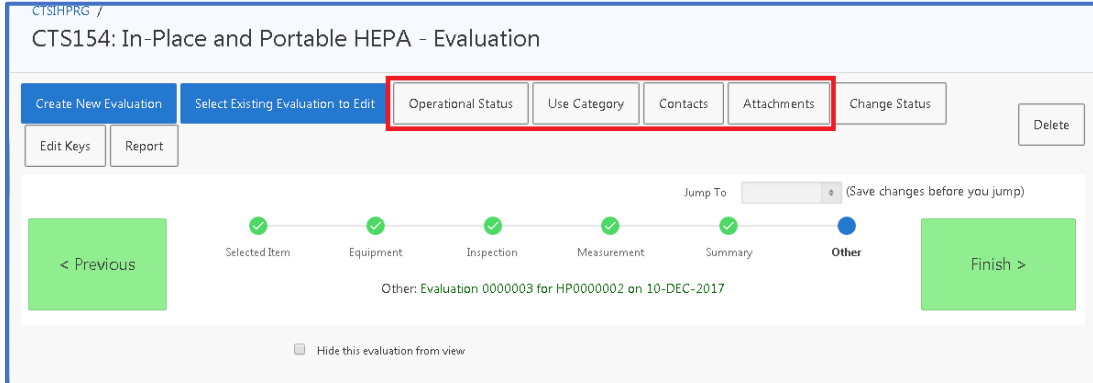Click **Save and Continue** button.

Use pull-down menu to answer *Yes/No* to "Did Unit Pass Leakage Test?".
Click **Save** button.

Summary

Enter text into *Comments on the Overall Certification Results* text field.
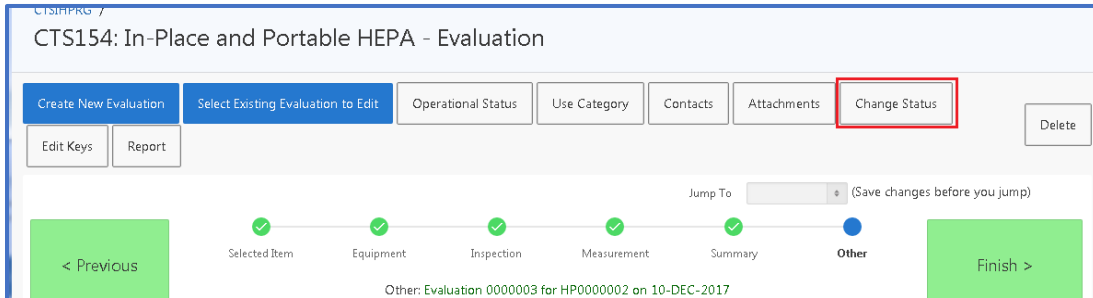Click **Save** button.

Review Fields

NOTE: Before you close your evaluation, review the **Operational Status**, **Use Category**, **Contacts** and **Attachments** for the inventory item you have selected.
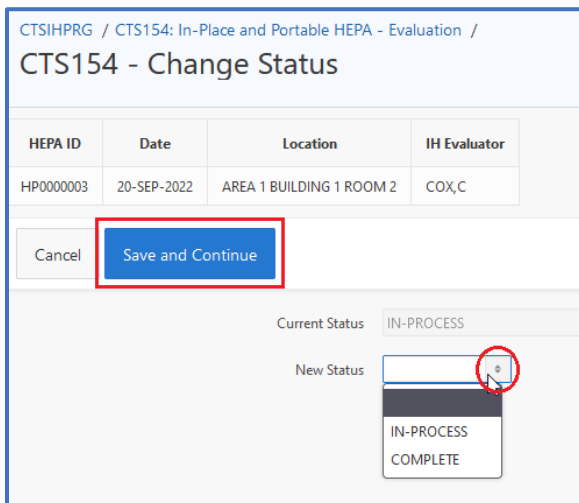

Change Status

BEFORE YOU CLICK THE FINISH BUTTON, you need to change the status of your evaluation. Click the **Change Status** button.

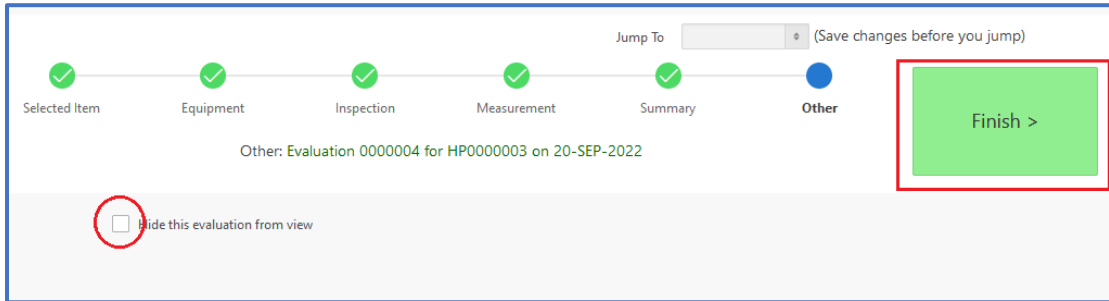Use pulldown menu to change *New Status* from IN-PROCESS to COMPLETE.
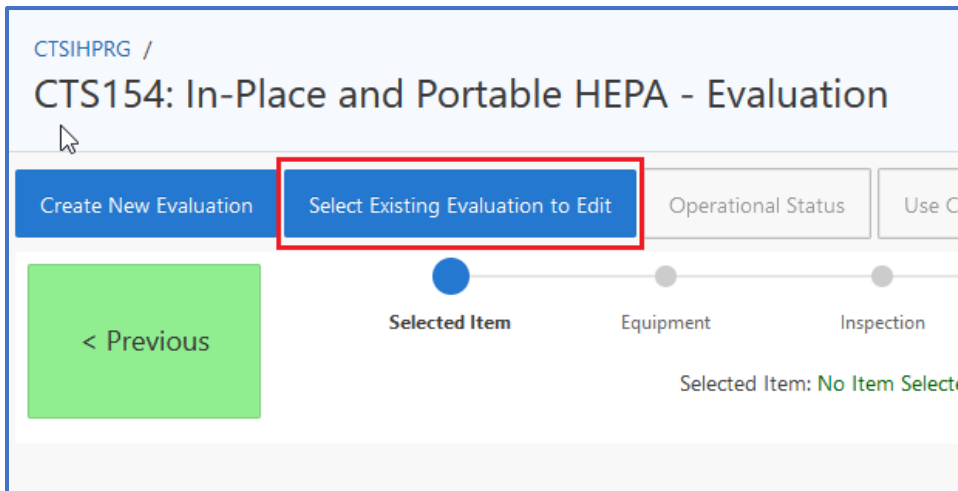
Click **Save and Continue** button.

Other

Optional: *Click checkbox to Hide this evaluation from view.*

Otherwise, click **Finish** button.

Edit Existing Evaluation
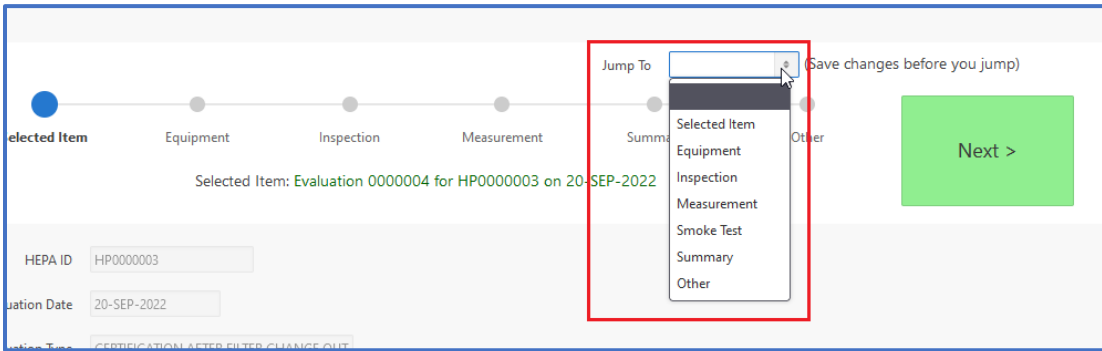
Click **Select Existing Evaluation to Edit** button.


Click blue **Select** text to select an evaluation.

	Eval ID	Location	HEPA ID	IH Evaluator	Status	Date	Location Detail	Manufacturer	Type
Select	0000004	AREA 1 BUILDING 1 ROOM 2	HP0000003	COX,C	IN-PROCESS	20-SEP-2022	HEPA ID: HP0000003	TEST	IN-PLACE PORTABLE ON BLOCKS

Use pulldown to navigate tabs via *Jump To* menu.

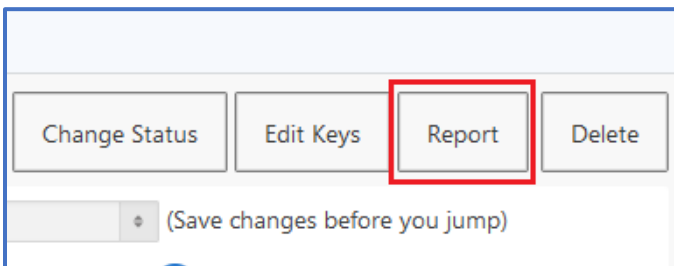**Note**: Always save changes before jumping to another screen.

Edit evaluation. Jump to *Other* screen. Click **Finish** button.
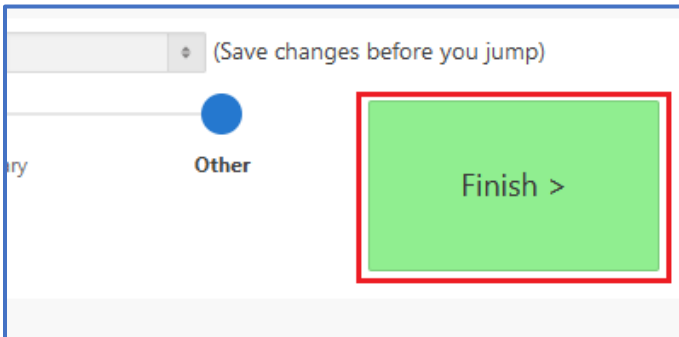
Print Evaluation Report

Select an existing evaluation.

Click **Report** button to view an evaluation report in a new browser tab.

HEPA Evaluation Detail

Evaluation ID	0000004
Evaluation Status	IN-PROCESS
HEPA ID	HP0000003
Evaluation Date	20-SEP-2022
Evaluation Type	CERTIFICATION AFTER FILTER CHANGE OUT
Evaluation was Performed by	COX, C (CHARITY)
HEPA Type	IN-PLACE PORTABLE ON BLOCKS
Manufacturer and Model	TEST
Location	AREA 1 BUILDING 1 ROOM 2
	HEPA ID: HP0000003

The unit passes both the inspection and the filter leakages tests

Description of Evaluation and Equipment Used

Equipment List

Equipment
ATI 5B AEROSOL GENERATOR

Comments about test equipment are typed here.

Inspection

Did Unit Pass Inspection?   **Yes**

01 PRESSURE GAGES

ID	Question or Requirement	Answer	Unsat Reason	Severity	Status
01.01	Are pressure gage the readings stable? (i.e., do not jump more than ±0.1 inch w.g.)?	Unanswered			
01.02	Do the gages appear to be properly installed and working properly?	Unanswered			

04 GENERAL AREA CONDITIONS

ID	Question or Requirement	Answer	Unsat Reason	Severity	Status
04.01	Area around the filter plenum is free of clutter and easily accessible?	Unanswered			
04.02	Area around the sample ports is free of clutter and easily accessible?	Unanswered			
04.03	Area around the injection port is free of clutter and easily accessible?	Unanswered			
04.04	The facility lighting around the plenum, injection and sampling ports is good?	Unanswered			
04.05	There are no hazards in the area that prevents the test from being performed?	Unanswered			

Measurements

Did Unit Pass Leakage Test?   **Yes**

HEPA Measurements

HEPA Measurements

Smoke Concentration	Unit	Stability with +/- 15% (Y/N)	Leakage %	Pass/Fail
5	MICRONS/LITER	Yes	.03	Pass
-	MICRONS/LITER			
-	MICRONS/LITER			
-	MICRONS/LITER			

Summary

Comments on results are typed here.
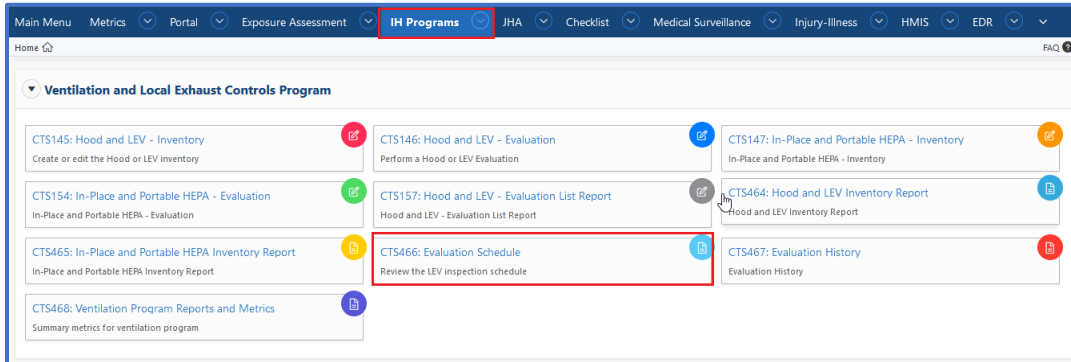
Close browser tab when finishing viewing report.

Chapter 4 – Tools and Reports

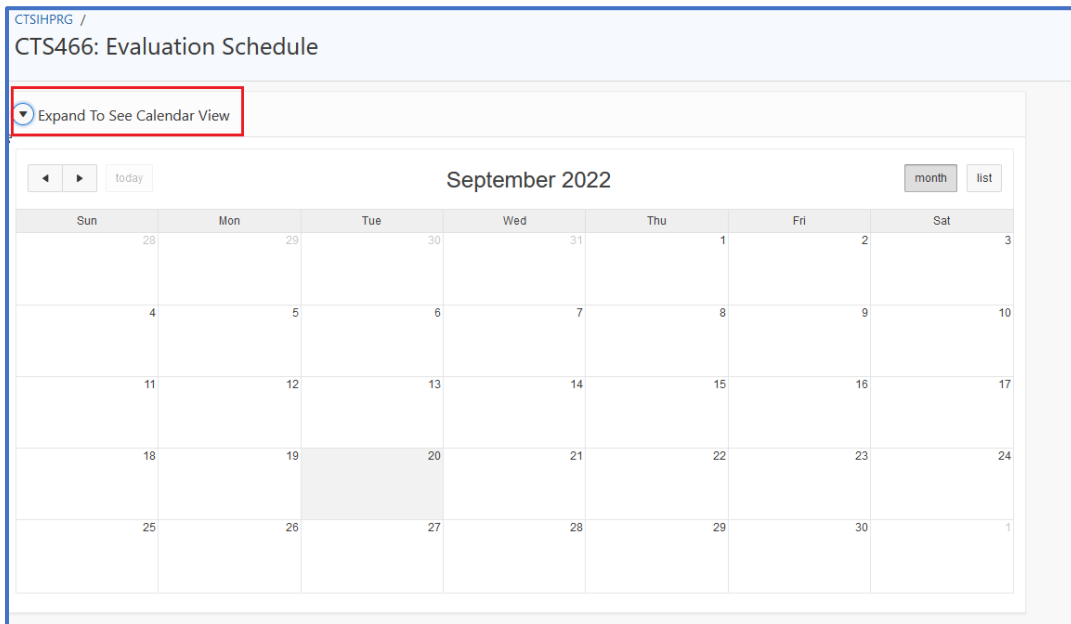## CTS466: Evaluation Schedule

As evaluations are created, they are added to the evaluation schedule.

Click **CTS466: Evaluation Schedule** button.

Expand To See Calendar View

Evaluation Schedule (list view)

Contacts For Email Notification

CTS467: Evaluation History

Summary metrics for inventory and evaluations are available for viewing.

Click **CTS467: Evaluation History** button.

Evaluation History displays evaluation details such as *Date of Evaluation*, *Eval ID*, *Inventory ID* and location specifics.

CTS464: Hood and LEV Inventory Report

Click **CTS464: Hood and LEV Inventory Report** button.

A grid of Hood and LEV details are displayed.

Click any **Hood-LEV ID** hotlink to view the report in a new browser tab.

Close browser tab when finished viewing report.

CTS465: In-Place and Portable HEPA Inventory Report

Click **CTS465: In-Place and Portable HEPA Inventory Report** button.

A grid of In-Place and Portable HEPA Inventory is displayed.

Click any **HEPA ID** hotlink to view its report in a new browser tab.

HEPA Inventory Detail	
HEPA ID	HP0000003
Location	AREA 1 BUILDING 1 ROOM 2
Location Detail Comments	HEPA ID: HP0000003
HEPA Type	IN-PLACE PORTABLE ON BLOCKS
Measurement Type	1-In-Place HEPA Inspection
Inspection Checklist (default)	IN-PLACE HEPA SYSTEM CHECKLIST
Manufacturer and Model	TEST
Organization	MAINL1 MAINL1
Inventory Status	ACTIVE

In-Place and Portable HEPA Evaluation

Date of Evaluation	Eval ID	IH Evaluator	Evaluation Status	Inventory ID	Type	Location	Manufacturer and Model
20-SEP-2022	0000004	COX,C	IN-PROCESS	HP0000003	IN-PLACE PORTABLE ON BLOCKS	AREA 1 BUILDING 1 ROOM 2	TEST

Close browser tab when finished viewing report.