CTS User Manual

Hazard Identification Worksheet (HIW)

Last Edited: 16 August 2022

Table of Contents

Introduction

The CTS Job Hazard Analysis (JHA) program provides a "smart" system for identifying job hazards and controls, using a graded approach of implementing standard controls where appropriate and custom controls where needed. The JHA system is used to create a 'work-safe' job plan that clearly presents the job scope, associated workplace hazards, and controls.

The *two levels of Job Hazard Analysis process are*: **Hazard Identification Worksheet** and **Full JHA Review**. The HIW (CTS539) can be considered a JHA Lite, designed to reduce the workload and time associated with creating a JHA by using pre-approved standard controls for common hazards related to the work.

If the HIW contains hazards that do not have standard controls the HIW information will transfer to the full JHA tool (CTS561) where a team is created to come to consensus for identifying hazards and implementing needed controls.

There are several phases related to creating and maintaining an HIW/JHA. This document and its counterpart, *CTS User Manual: Job Hazard Analysis (JHA)* will demonstrate how to successfully complete each phase.

| PHASE	RESPONSIBLE	DESCRIPTION
Creation	Owner	Initial creation based on work need. Owner completes as much as possible, then notifies team to review.
Initial Review	Team	Review team freely edits the JHA and informs the owner they have completed their initial review
Frozen	Owner	When team members have completed their review, the owner freezes the JHA which notifies the team to give their final approval.
Consensus	Team	changes after the JHA is frozen must be resolved through the Feedback and Approval Log.
Final Approval	Owner	When team approvals are complete, the owner submits the JHA as final.
Redline	Owner	Any changes made after final approval must go through the review and approval log.
Reapproval	Team	Reapproval requires a reset and reapproval of the team. Team members may be changed at this time.

Chapter 1 – Creation Phase

The *Creation Phase* begins with the owner starting the review using CTS539 and answering the HIW questions. It is possible to go directly to CTS561 and create the JHA, but you will be required to break the scope into detailed steps, hazards, and controls. If you have a simple job the HIW may suffice. This document describes the method of starting with the HIW.
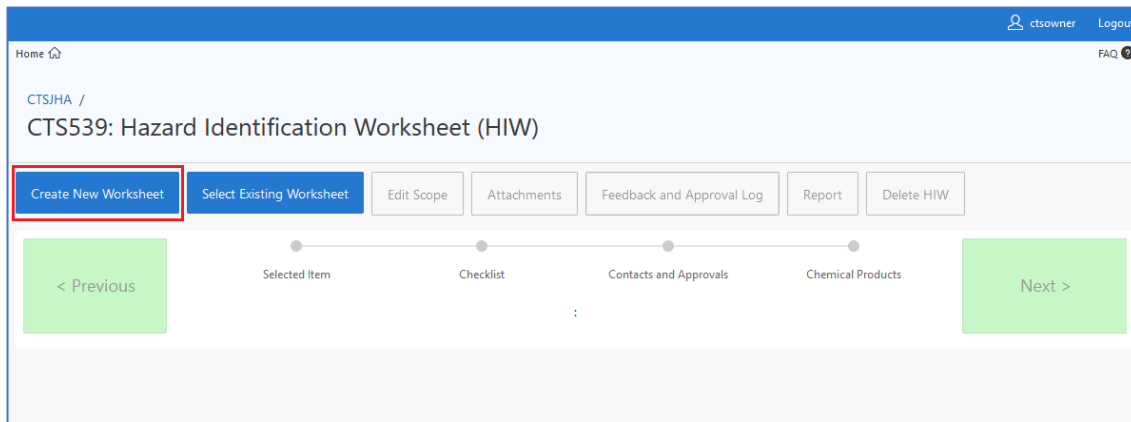
The process of using the full JHA review tool, CTS561 is covered in a separate manual.

Create HIW

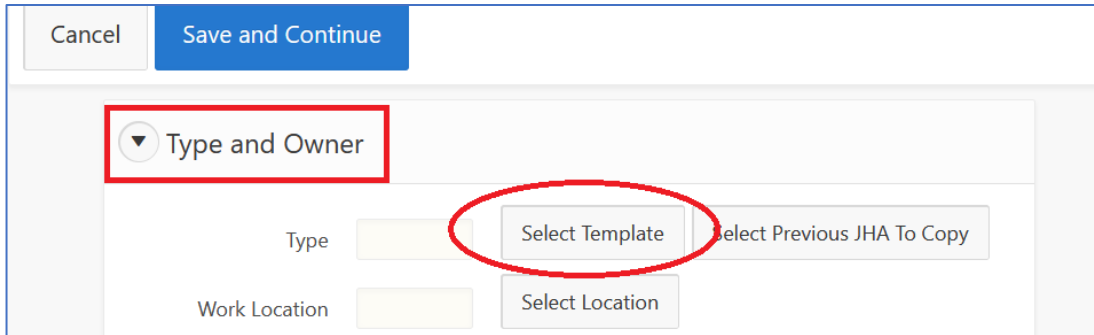To create a new HIW, click **CTS539: Hazard Identification Worksheet (HIW)**.
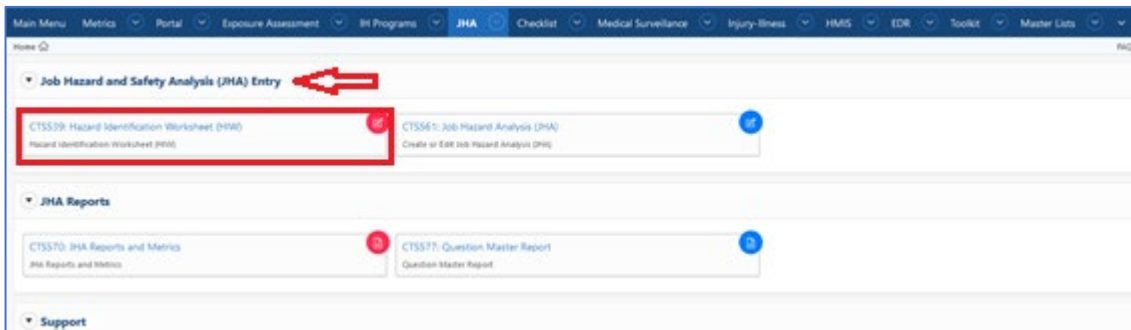
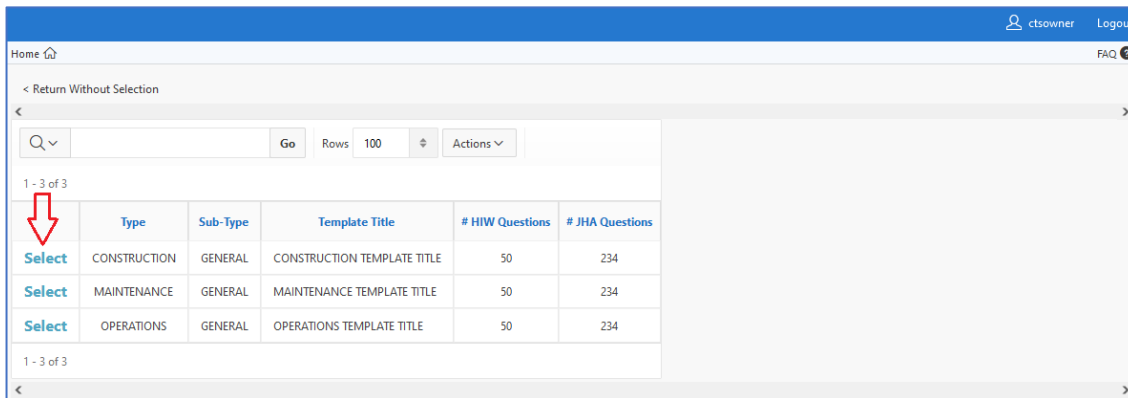Click **Create New Worksheet** button.

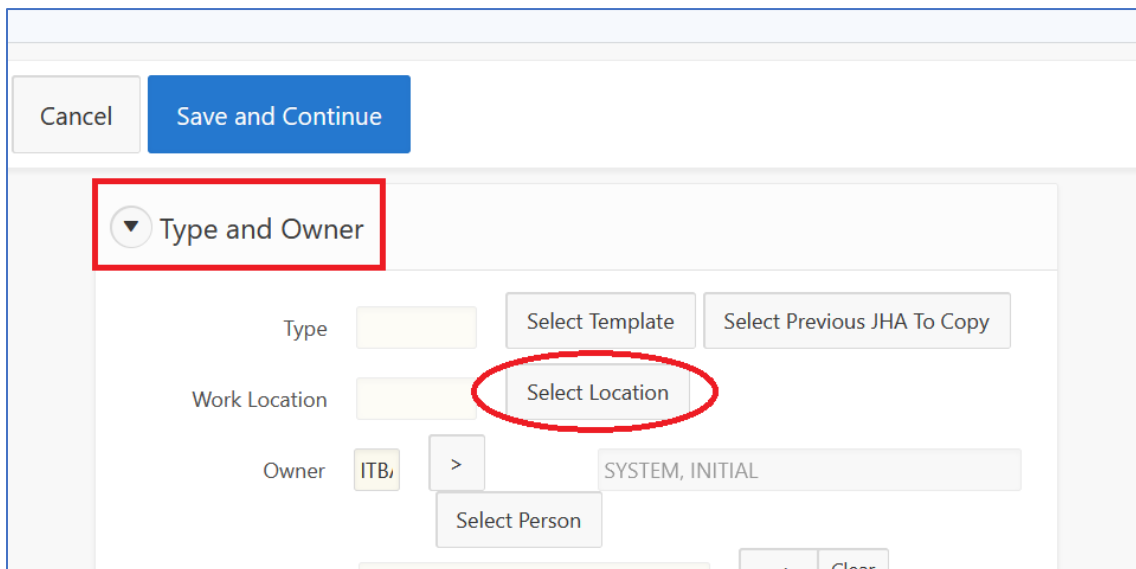Under *Type and Owner* submenu, click **Select Template** button.

This establishes a checklist refined to an organization or specific type of work.

Click blue **Select** text to select a template.

Once system returns with selected template, click **Select Location** button.

Click blue **Select** text to select 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

1 – 17 of 17

Once system returns with selected location, verify the owner and default organization

The **owner** is the key role for the final approval and on-going feedback of an HIW.

If an owner leaves the company or is otherwise no longer responsible for the HIW, the HIW should be transferred to another owner unless it is no longer needed. Once the end date is passed, the HIW status will be set to expired.

Owner	ITBADGE	>	Select Owner	SYSTEM, INITIAL		
Organization	IHSL1 IHSL1				Select Org	Clear

After you verify the owner and the Organization assigned to the HIW, review and answer the *Scope and Work Description* submenu.

Scope

Properly defining your scope of work is required to ensure you identify all hazards and can effectively implement controls.

Scopes will vary based on every job, but care should be taken to write it well answering all the scope boxes you can in detail. Having an effective scope will ensure your team has the information they need to help you identify relevant hazards and to implement controls. Scope questions are:

- What are you going to do? What task(s) are being accomplished?
- What work control documents are being used? (i.e., procedure and title, work package, checklists, etc.)
- How are you going to do it? What tools/equipment are being used? What is the sequence of job steps?
- Who is going to do it? What craft types, specific support personnel, and other people will be involved in this task?
- What are the boundaries of the job? (Location, time/date constraints, LOTO, cleanup/disposition, permits, etc.)

Below are a few examples of scope for the default templates of Maintenance, Construction and Operations

Maintenance Example	
TITLE - REPAIR SURFACE CLEANING WIDGET AT WIDGET SHOP	
What are you going to do? What task(s) are being accomplished?	Troubleshoot and repair the cleaning widget instrument at the widget shop. Review will include, but not be limited to the O-rings, power supply, values, and associated components. The equipment is 120-volt cord and plug.
What work control documents are being used? (i.e., procedure and title, work package, checklists, etc.)	An HIW was performed for this work, with all hazards having standard controls other than lock-out tag-out. Therefore, a JHA is being performed. See work package for hard-copy
How are you going to do it? What tools/equipment are being used? What is the sequence of job steps?	Work will be performed using standard hand tools and a battery-operated drill and screwdriver.
Who is going to do it? What craft types, specific support personnel, and other people will be involved in this task?	Electrician, Pipefitter and Outside Machinist
What are the boundaries of the job? (Location, time/date constraints, LOTO, cleanup/disposition, permits, etc.)	This JHA applies to only work performed on the cleaning widget instrument in the widget shop.

| Construction Example	
TITLE – STAGING AREA FUEL TANK DEMOLITION	
What are you going to do? What task(s) are being accomplished?	Provide labor and materials and equipment to perform demolition on the staging area fuel tank. Work will include multiple activities: such as electrical isolation, sandblasting, use of chemical products and normal construction hazards.
What work control documents are being used? (i.e., procedure and title, work package, checklists, etc.)	Contractor handbook and daily pre-job briefings will be performed to cover the tasks for the day and to review the JHA. Feedback will be gathered from workers to determine if anything new is being encountered.
How are you going to do it? What tools/equipment are being used? What is the sequence of job steps?	Small hand tools (powered and manual). Some sandblasting equipment will be in use during initial preparation phase.
Who is going to do it? What craft types, specific support personnel, and other people will be involved in this task?	Construction workers and staff assigned to the project.
What are the boundaries of the job? (Location, time/date constraints, LOTO, cleanup/disposition, permits, etc.)	This work is limited to the boundaries of purchase order 1055A which is limited to the west end fuel tank at the west end.

Operations Example	
TITLE - CLEANING OF LIQUID(S), SLUDGE, AND/OR SOLID(S) FROM WIDGE MACHINE	
What are you going to do? What task(s) are being accomplished?	Clean-up of liquid(s), sludge, and/or solid(s) by chemical operators using various tools and equipment in the widget shop. This task is normally done about once a week but can occur more frequently if work schedule requires overtime.
What work control documents are being used? (i.e., procedure and title, work package, checklists, etc.)	The widget operation procedure lists each step. This JHA extends the information in the procedure which focuses on steps to a successful product, and not always on the hazards that may be created. The JHA is reviewed with workers routinely to ensure they keep aware hazards for all steps.
How are you going to do it? What tools/equipment are being used? What is the sequence of job steps?	Using standard hand tools, vacuums, pumps, and brushes. Gather materials and clean areas.
Who is going to do it? What craft types, specific support personnel, and other people will be involved in this task?	Chemical Operators
What are the boundaries of the job? (Location, time/date constraints, LOTO, cleanup/disposition, permits, etc.)	The procedure lists the steps, but each week there is a review to determine if any boundary conditions have changed related to new product developments.

Once all scope questions have been answered, click **Save and Continue** button.
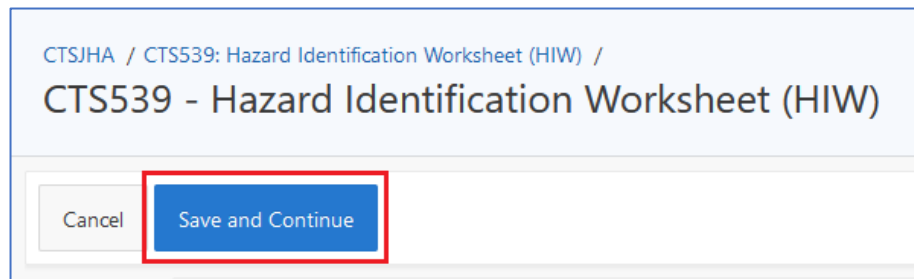
Checklist Questions

Once **Checklist** section appears, answer "Yes" to the questions that are applicable. Click **Set All Unanswered to No** button. Click **Save** button to continue to *Contacts and Approvals* screen.
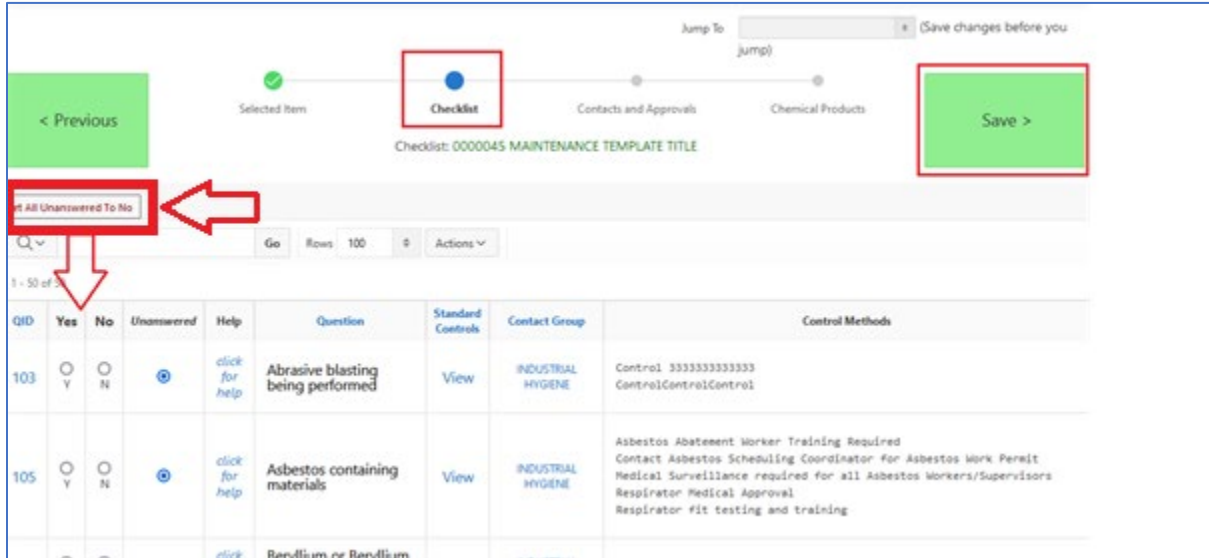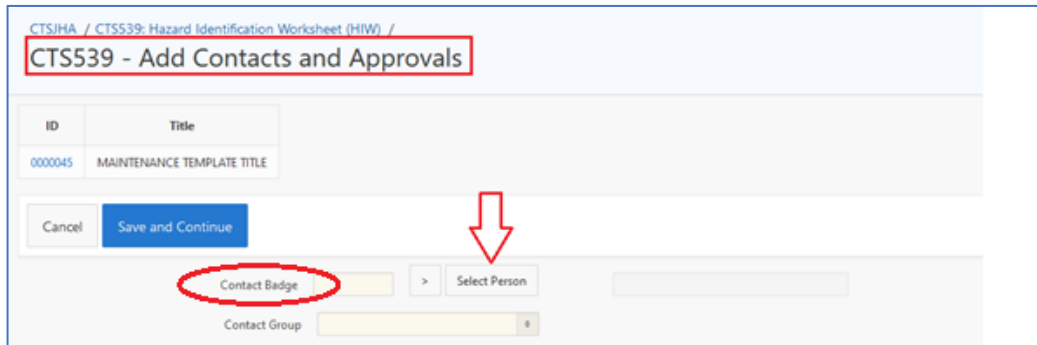

Review Contacts list. To add multiple contacts, proceed. Otherwise, skip ahead to *Chemical Products*.
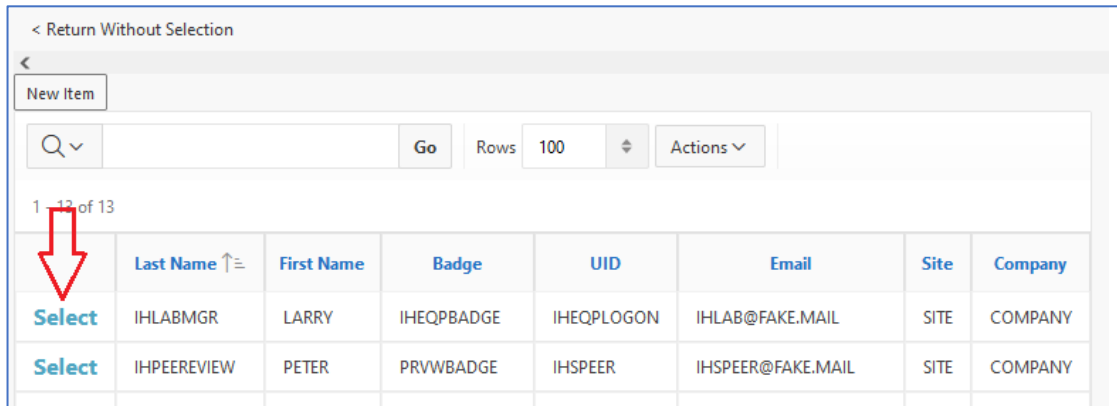
Contacts and Approvals

Under *Contacts and Approvals* submenu, click **Add Contact** button to add owner and/or safety representative(s).
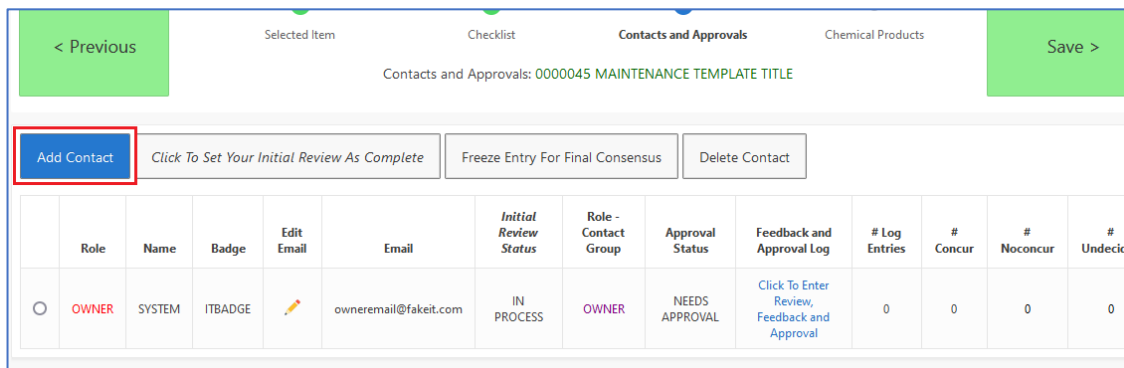
On *CTS539 – Add Contacts and Approvals* screen, click enter Contact Badge into text field. Alternatively, click **Select Person** button.

Click blue **Select** text to select a worker from the list.

Use pull-down menu to select **Contact Group**. Click **Save and Continue** button.
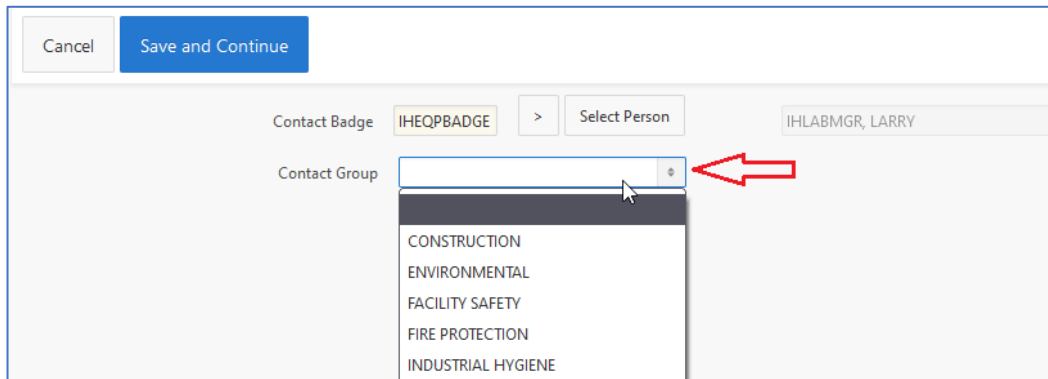
Team members inform the owner that their review is complete by clicking on **Click To Set Your Initial Review As Complete** button.
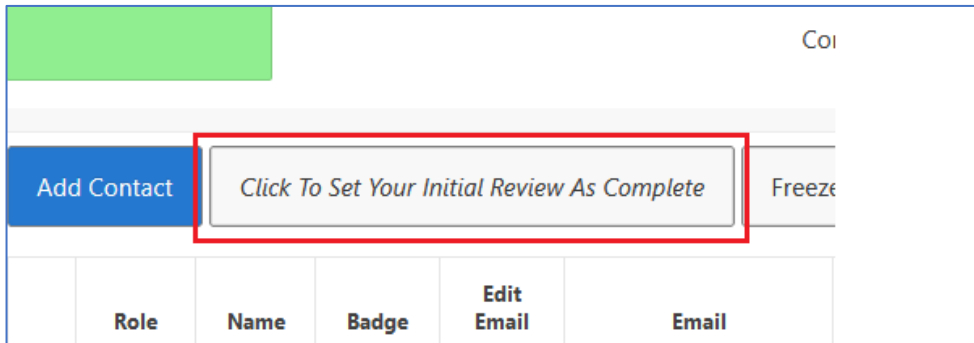
Click **Save** button to continue to *Chemical Products* screen.

Chemical Products

To add chemical(s), click **Add Chemical Product** button.
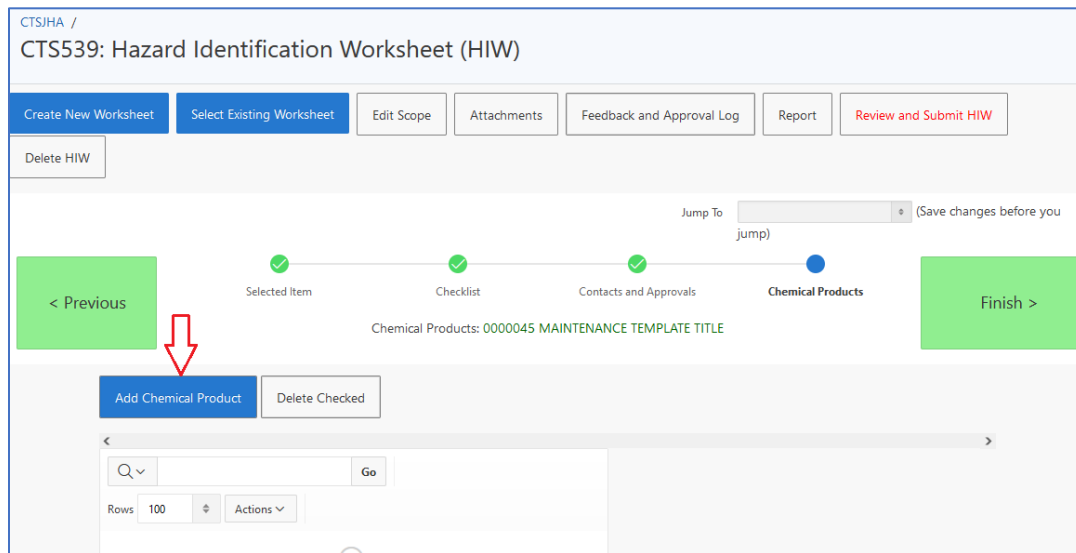
In *CTS539 – Add Chemical Products* screen, click **Select Product** button.
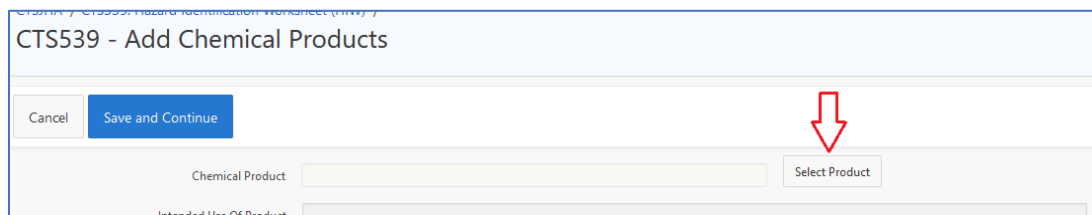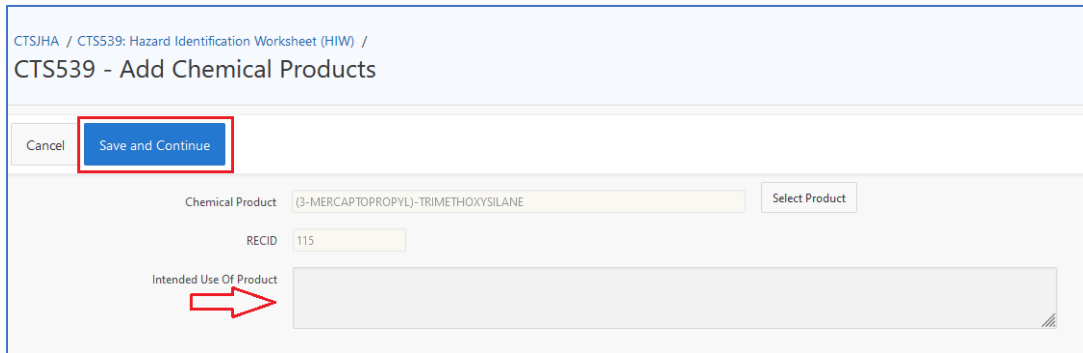

Click blue **Select** text to select Chemical Product from the list.

Enter *Intended Use of Product* description into text field. Click **Save and Continue** button.


Finish or Submit

When you submit the HIW, a series of QA checks will be performed to determine if you need to proceed to CTS561 for the full JHA process, or if you can perform the work using standard controls. However, if you have multiple team members you will need their input before submitting.

- Click the Green **Finish >** button if you have more than 1 team member so they can do their review.
- Click Review and Submit HIW if you are the only team member to print the report or continue to CTS561 for the Full JHA team review process.

Review and Submit HIW

Click **Review and Submit HIW** button.
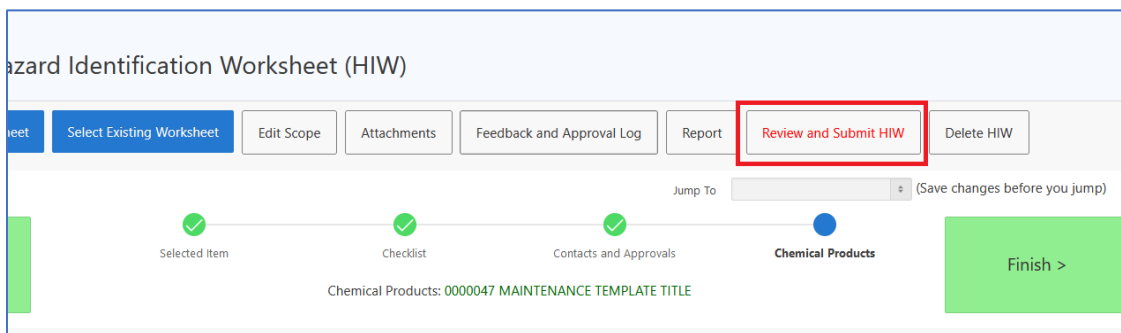
When you click Review and Submit quality checks are performed to help you determine if you need to proceed to the full JHA or if an HIW is acceptable.

If you have only identified hazards on the checklist that have standard controls, you will be given the choice to use the standard controls or go to the full JHA review screen. If you have chosen hazards that do not have standard controls, you will not have a choice – you will be redirected to CTS561 with all information you have entered carried forward as the starting point for building our team and completing the step, hazard and control detail of the JHA.

Under *HIW-JHA Decision* submenu, use radio buttons to select a **Controls Implementation Decision.** If you answered 'Yes' to any questions that *do not have standard controls*, you will be redirected to **CTS561** for a full JHA review after submission of HIW. Choose option 1.

1 - IMPLEMENT STANDARD HAZARD CONTROLS VERBATIM – WITHOUT MODIFICATION.

If all questions were answered 'Yes' and *are covered by standard controls*, the system will give the option to approve an HIW upon submission. (**See Chapter 3 – Frozen Phase**)

Click the **Click to Submit and Print the HIW Report, or if chosen, to Continue to CTS561 For The Full JHA process** button.

If a full JHA is required, click the button and the system will automatically redirect you to **CTS561: Job Hazard Analysis (JHA)**. *See CTS User Manual: Job Hazard Analysis (JHA).*

For HIW owners with no team members, the HIW will be approved on submission and report will be displayed.

For HIW owners with team members, the HIW will enter Initial Review Phase.

Chapter 2 – Initial Review

The *Initial Review Phase* starts when the owner notifies the team, asking for their review and input.
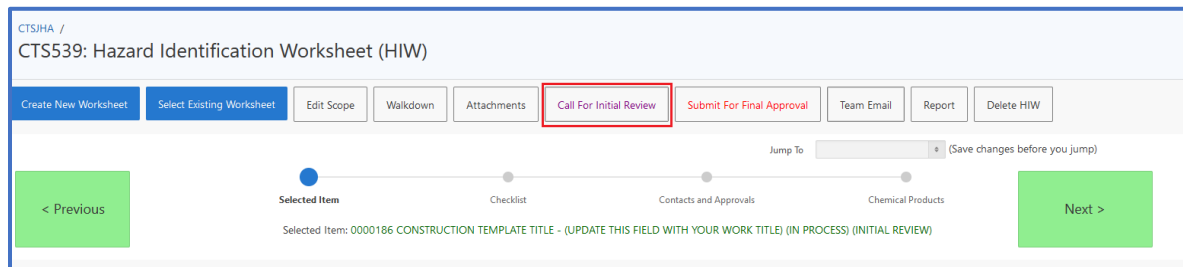
Before pushing the **Call for Initial Review** button, you (*the owner*) should complete as much detail as possible so the team can better understand how to help you.

Once you make the call for initial review, the team will receive notification and will access the HIW, review and freely edit any aspects with a focus on the step, hazard, and control detail.

The initial review phase is intended for ALL team members to review scopes, ask questions, make edits, and generally help the owner complete the best work plan possible. Once team members have completed their review, they will click to the purple title button **Click To Set Your Initial Review As Complete**.

The title for the purple button at the top of the screen will change based on the phase and role.

Purple button titles based on Phase and Role

Phase	Role	Button Title
Initial Review	Owner	Call For Initial Review
Initial Review	Team	Click To Set Your Initial Review As Complete
Initial Review	Owner	Freeze For Consensus
Consensus	Team	Enter Approval and Feedback
Consensus	Owner	UnFreeze For Free Edit
Consensus	Owner	Submit For Final Approval
Redline or Expired	Owner	Call For Reapproval
Redline or Expired	Owner	Submit For Final ReApproval

For Initial Review on an HIW, there are two options available. The first option is for a multiple person team. Click the **Click Here To Send Email Requesting An Initial Review** button to inform team members an HIW requires their attention.

The second choice is for a single person team. When no other team members are involved, click the **Single Person Team-Submit For Final Approval** button. For this scenario, skip ahead to *Chapter 5 – Final Review & Submit*.

This screen also displays *Team Contacts*, *Notify Only List*, and *Email Sent* log.

After clicking the button requesting an initial review from the team, the system returns to the main HIW screen. Team members should review HIW and when satisfied, click the **Click To Set Your Initial Review As Complete** button.

Click **OK** button in alert box to confirm review as completed.
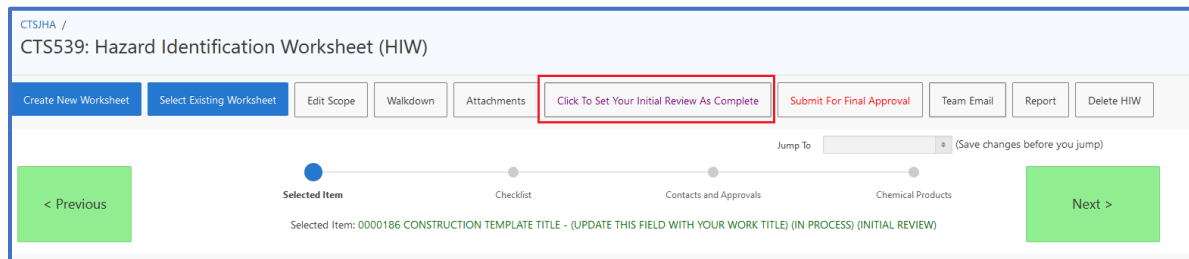
After all team members *set their initial review as complete*, an email notification is sent to all parties.

Chapter 3 – Frozen Phase

The *Frozen Phase* is brief and begins after the owner receives notification via email that all team members have indicated their initial review is complete.

Freeze Entry For Final Consensus

Click Freeze Entry For Final Consensus button.

Note, as the owner you will see a message indicating the HIW is frozen for all team members, but that you, your delegate or a JHA manager may continue to edit during the consensus phase.

"Entry has been frozen, but you, your delegate or a JHA manager may continue to modify during the consensus phase"
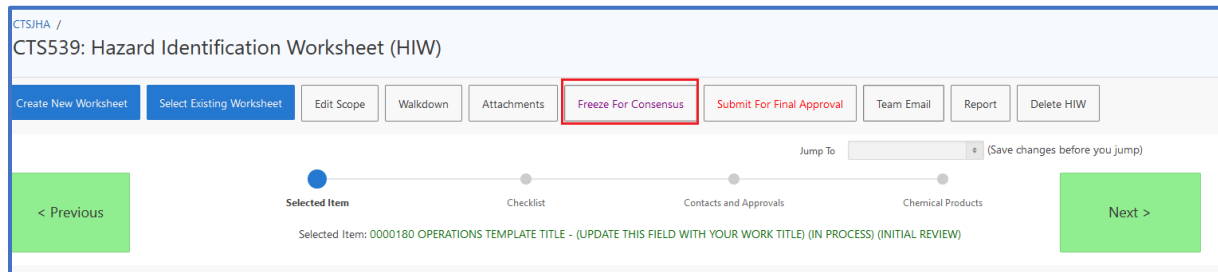
When the freeze button is pushed, all team members will receive an email indicating to give their final approval or feedback to achieve consensus. Final approval and Feedback are entered in the CTS585 *Feedback and Approval Log*.

Chapter 4 – Consensus Phase

During the *Consensus Phase*, team members view the HIW report and if acceptable give their approval. If they feel changes are **necessary,** they enter the review note and wait for the owner to concur and adjust the HIW – or no concur and give a reason.

Feedback and Approval Log

Click CTS585: Feedback and Approval Log.
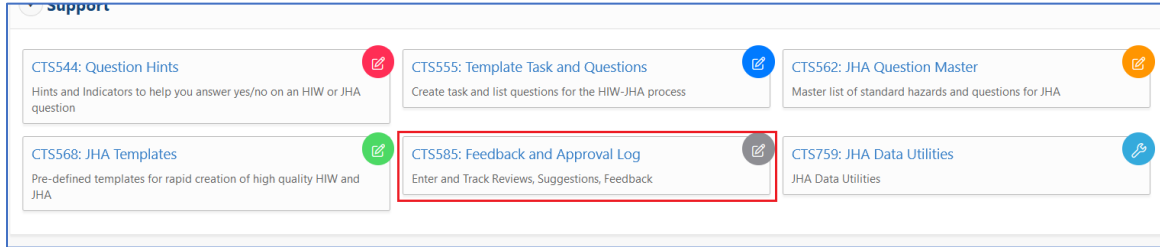
Click **Select JHA** button. HIWs are also listed here.
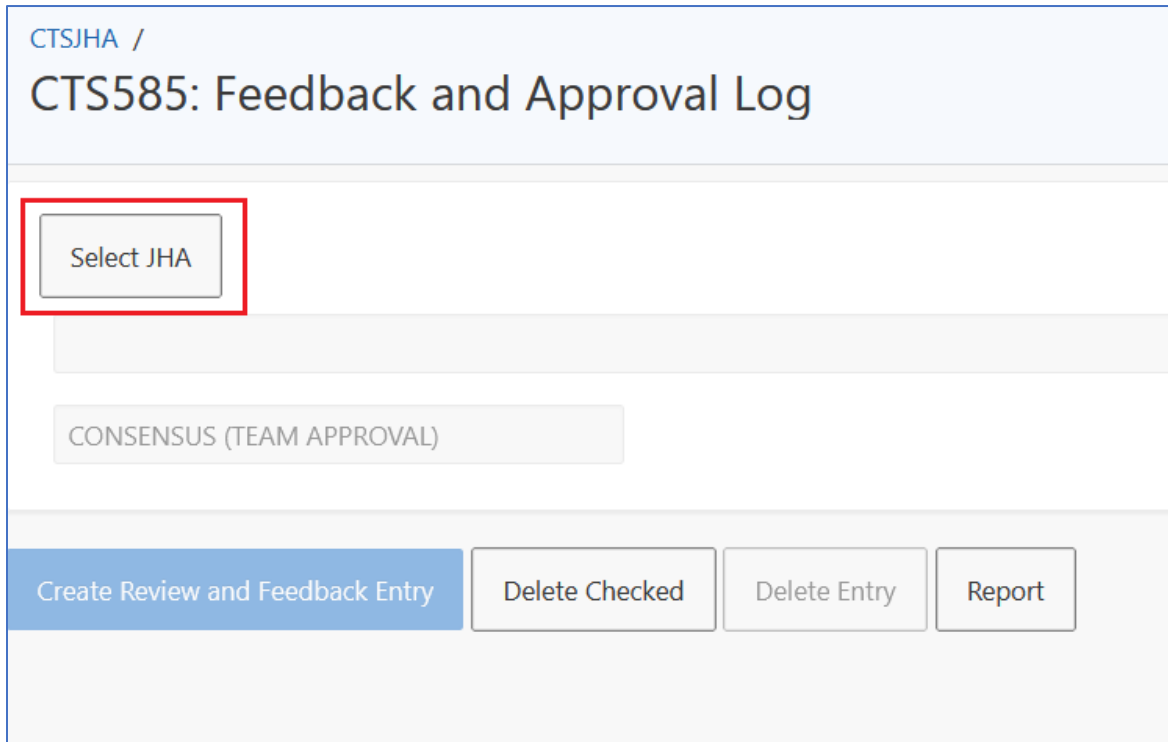
Click blue **Select** text to select JHA/HIW.

*Note: The template and current JHA/HIW phase are displayed in the top section.

Print Report

Click **JHA Report** button to view all HIW details.

Print report. *Close browser tab when finished viewing.*

* DRAFT - DO NOT USE *

Hazard Identification Worksheet Report

JHA title:	**CONSTRUCTION TEMPLATE TITLE**
ID:	**0000055-00**
Location:	**AREA 1 BUILDING 1 ROOM 1**
Type:	**CONSTRUCTION**
Sub-Type:	**GENERAL**
Status:	**IN PROCESS**
Badge:	**ITBADGE**
Owner:	**SYSTEM**

Define Scope

Start Date:

End Date:

What are you going to do? What task(s) are being accomplished?

What are you going to do? What task(s) are being accomplished?

What work control documents are being used? (i.e. procedure and title, work package, checklists, etc.)

What work control documents are being used? (i.e. procedure and title, work package, checklists, etc.)

How are you going to do it? What tools/equipment are being used? What is the sequence of job steps?

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Who is going to do it? What craft types, specific support personnel, and other people will be involved in this task?

Who is going to do it? What craft types, specific support personnel, and other people will be involved in this task?

What are the boundaries of the job? (Location, time/date constraints, LOTO, cleanup/disposition, permits, etc.)

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Steps, Hazards, Controls, and titles

000 HAZARDS AND CONTROLS THAT APPLY TO ALL STEPS

Asbestos containing materials (105.0.0)

Hazard Control Method	Asbestos Abatement Worker Training Required
Full Description of Control Method	Persons involved in asbestos abatement activities, including: inspectors, mangement planners, project designers, supervisors of asbestos abatement workers/asbestos competent persons, and asbestos abatement workers shall meet EPA Model Accreditation Plan Training Requirements
Hazard Control Method	Contact Asbestos Scheduling Coordinator for Asbestos Work Permit
Full Description of Control Method	Contact Asbestos Scheduling Coordinator for Asbestos Work Permit.
Hazard Control Method	Medical Surveillance required for all Asbestos Workers/Supervisors
Full Description of Control Method	Medical Surveillance is required for all employees who participate in Asbestos removal activities.
Hazard Control Method	Respirator fit testing and training
Hazard Control Method	Respirator Medical Approval

ACM - Requires negative exposure assessment (105.3.0)

Hazard Control Method	control
Full Description of Control Method	description

Contacts

Name	Badge	Email	Owner-Reviewer	Role
IHSAFETYPRO	IHSPBADGE	IHSP@FAKE.MAIL	REVIEWER	INDUSTRIAL HYGIENE
SYSTEM	ITBADGE	owneremail@fakeit.com	OWNER	OWNER

* DRAFT - DO NOT USE *

Enter Feedback Or Approval

To add feedback, click **Create Review and Feedback Entry** button.

Enter feedback details in *Description* text area.
Use pulldown menu to select *Contact Group*.
Click **Save and Continue** button.

Chapter 5 – Final Review & Submit

The *Final Review & Submit Phase* is entered once all questions are answered, hazards controlled, and log entries resolved.

Owner Submits

The owner clicks **Submit For Final Approval** button to submit.
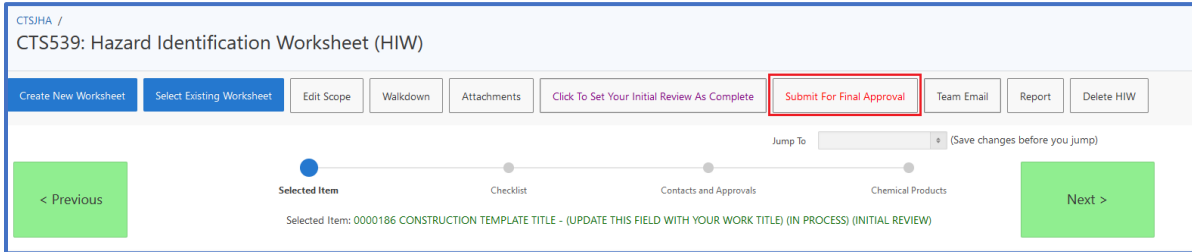
Click the **Click to Submit and Print the HIW Report, or if chose, to Continue to CTS561 For The Full JHA Process** button.

Print the report. Notice the report is now marked with the confirmation "APPROVED FOR USE".

APPROVED FOR USE

Hazard Identification Worksheet Report

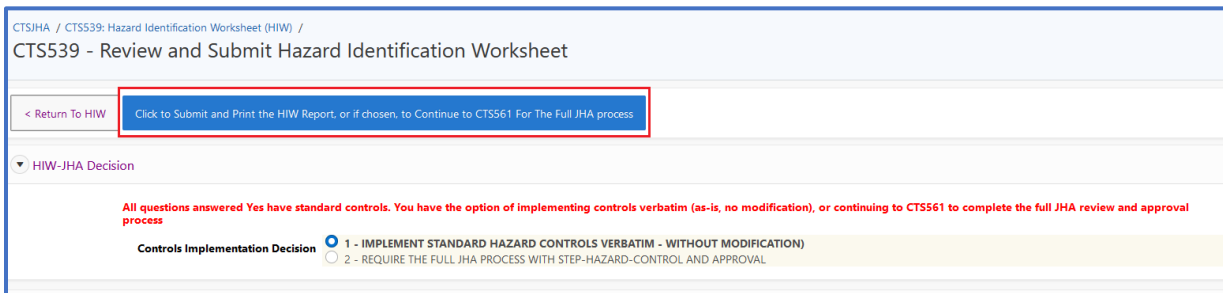|	
JHA title:	**CONSTRUCTION TEMPLATE TITLE**
ID:	**0000055-00**
Location:	**AREA 1 BUILDING 1 ROOM 1**
Type:	**CONSTRUCTION**
Sub-Type:	**GENERAL**
Status:	**APPROVED FOR USE**
Badge:	**ITBADGE**
Owner:	**SYSTEM**
Start Date:	**22-APR-2022**
End Date:	**21-APR-2025**

Define Scope

Start Date:	**22-APR-2022**
End Date:	**21-APR-2025**

What are you going to do? What task(s) are being accomplished?

What are you going to do? What task(s) are being accomplished?

What work control documents are being used? (i.e. procedure and title, work package, checklists, etc.)

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How are you going to do it? What tools/equipment are being used? What is the sequence of job steps?

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What are the boundaries of the job? (Location, time/date constraints, LOTO, cleanup/disposition, permits, etc.)

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Steps, Hazards, Controls, and titles

000 HAZARDS AND CONTROLS THAT APPLY TO ALL STEPS

Asbestos containing materials (105.0.0)

Hazard Control Method	Asbestos Abatement Worker Training Required
Full Description of Control Method	Persons involved in asbestos abatement activities, including: inspectors, mangement planners, project designers, supervisors of asbestos abatement workers/asbestos competent persons, and asbestos abatement workers shall meet EPA Model Accreditation Plan Training Requirements
Hazard Control Method	Contact Asbestos Scheduling Coordinator for Asbestos Work Permit
Full Description of Control Method	Contact Asbestos Scheduling Coordinator for Asbestos Work Permit.
Hazard Control Method	Medical Surveillance required for all Asbestos Workers/Supervisors
Full Description of Control Method	Medical Surveillance is required for all employees who participate in Asbestos removal activities.
Hazard Control Method	Respirator fit testing and training
Hazard Control Method	Respirator Medical Approval

ACM - Requires negative exposure assessment (105.3.0)

Hazard Control Method	control
Full Description of Control Method	description

Contacts

Name	Badge	Email	Owner-Reviewer	Role
IHSAFETYPRO	IHSPBADGE	IHSP@FAKE.MAIL	REVIEWER	INDUSTRIAL HYGIENE
SYSTEM	ITBADGE	owneremail@fakeit.com	OWNER	OWNER

APPROVED FOR USE