Discovery

SAFETY FIRST

Termination and Recovery

Initial Response

Sustained Response

ASTI

NH3

AMMONIA SAFETY & TRAINING INSTITUTE

ASTI ONE PLAN™

Part 1: Creating and Editing the Playbooks

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ABOUT THE ASTI ONE PLAN

The National Response Team (congressional appointed local, state, and federal hazmat leaders in the U.S.) published "The National Response Team's Integrated Contingency Plan Guidance" in the Federal Register on June 5, 1996 (61 FR 28641). The Integrated Contingency Plan (ICP or "one plan") is intended to assist employers in preparing integrated emergency response plans that meet the requirements of multiple federal agency regulations with a single plan. The OSHA regulations addressed by the one-plan guidance include 29 CFR 1910.38(a), 1910.119, and 1910.120; EPA and DOT/US Coast Guard regulations are also covered under the plan. The NRT ICP Guidance is guidance only and does not relieve employers from their obligations under existing federal emergency response planning requirements. See the NRT website at http://www.nrt.org.)such as pictures, procedures, quick-guide checklists, and connection to regional, state, and federal emergency response support.

The Guidebooks are developed for ASTI Associates and Staff.

The purpose of the Guide is to create and/or edit Playbook content and to ensure that the following two objectives are fulfilled:

1. The One Plan Playbook system must be created with similar expectations for the type of content expected by all end users. The Playbooks are designed similarly so that local public safety responders and corporate organizations with multiple facilities will be capable to train and prepare for emergency response with a similar format.

2. This Part 1 Guidebook describes how to create and edit the Playbook details. The Part 2 Response Mode Guidebook will explain how the The facility Concept of Operations (CONOPS) represented in the One Plan Playbook system will reflect the Tripod relationship between industry, government, and public safety as expected by the local and State Authorities Having Jurisdiction (AHJ), as per the federal emergency response framework.

TABLE OF CONTENTS

TABLE OF CONTENTS

Instructions to the One Plan Playbook Users

1. User setup while using the Guidebook: Open the Guidebook so that the book is opened for two page viewing. The figures located on both pages are frequently referenced within the narrative on both pages.

2. The ASTI appointed Associate will work with the employer appointed "Facility One Plan Playbook Champion" who would be the point of contact for supplying pictures, SOPs, and other key Playbook required facility information needed to complete the Hazard Zone Playbooks. The Champion should have the qualities similar to the "Emergency Planning Specialist (see page 6 for a description of this position).

3. An acronyms and key-definitions list is located in Appendix 1

4. **IMPORTANT BEGINNING NOTE:** The majority of this Guidebook is developed to explain how to create and upload One Plan information into the OP Playbook web-application, Figure 1 on page 6 will show the three blue icons that are used to edit (upload and/or edit data already loaded) the Command Team, Master Map, and Playbooks, The last Green box is the "View Response mode". This mode will be used by the facility and public safety responders during a live incident or training tabletop exercise. ASTI is developing a separate "One Plan Emergency Response Guidebook" for the "View Response" Mode.

This Guide Book is written for the Associates that create playbooks for their clients, and for the ASTI staff that support the Associates as they create and edit the Playbooks. The Playbook descriptions within this Guide Book are created by the ASTI One Plan Playbook team that developed the system content with over 25 years of research and experience.

The One Plan Playbook system has four elements. The first three elements are set up to edit/create the Playbook Command Team, Master Maps, and Playbook content. The fourth element is used by the Playbook client (end users) for training, emergency response, and other related uses that support on-going implementation of the Concept of Operations (CONOPS) that operationally describes how to implement the facility emergency plan and the community response system as approved by the Authorities Having Jurisdiction (AHJ). **A separate Emergency Response Guidebook will be developed to explain how to implement the CONOPS and how to use the "View Response" Mode.**

The Command Team

The employer's Command Team is led by an employer selected senior official or even better the employer appointed Facility Incident Commander that has successfully completed FEMA ICS 100, 200, and NIMS 700 and 800 courses. ICS courses are free and on-line at https://training.fema.gov/is/courseoverview.aspx?code=is-100.c&lang=en

The on-line training link will open the ICS 100 course. Use the web page "Search Box" to find the ICS 200 and NIMS 700 and 800 course.

Figure 1 - One Plan Dashboard

The employer may also appoint an emergency planning specialist e.g. Playbook Champion to create and update the emergency plan. The facility emergency plan should indicate the command team structure that is used for the facility. The command team should be updated daily and when command team members are changed.

When an IC is not available the "senior official" at an emergency who has the responsibility for controlling the operations at the site takes command.

The public safety senior officer on the first-due piece of responding emergency apparatus to arrive on the incident scene may assume command until a more senior officer arrives (i.e., battalion chief, fire chief, law enforcement official, site coordinator, etc.) the position is passed up the line of authority which has been previously established in the local CONOPS.

The Discovery stage of an emergency event is initiated by the first supervisor who recognizes the emergency. All supervisors will be trained to implement the Blue (Discovery) Playbook because it's vital that life safety, command team alert, and notification actions occur immediately

Figure 2 - Unpopulated Command Team Page

Populating The Employee Roster

Members of the command team are assigned to one or more of the four command positions from the "Employee List". The employee's name and contact information is loaded into the database through the employee list function. Notice the white plus (+) icon in the grey employee list header. This opens the utility to add personnel to the employee list.

The information loaded in the fields are seen in Figure 3. Command team members may be available to be called out to respond to an incident at any time (On-Call) or not. The normal work hour times are loaded in the database for the employee (Figure 3). Click the "Create Employee" button (Figure 4) in order to save the information to the employee database. The next employee may be added after "Create Employee" has been clicked. Clicking on the white plus (+) again. The command team list looks like Figure 4 when populated.

Figure 3 - Creating a command team employee

The person assigned by the Notification Unit Leader shall keep the Daily Command Team schedule up to date. See the Appendix 2 for the CONOPS identifying the checklist requirements for each command position.

Understanding The Employee List Color Code

There are three colors associated with an employee's record in the database. An AMBER field indicates that the employee is available on-call 24/7. The WHITE field indicates the employee is NOT an on-call team member AND the employee is available (on normal work days). The RED field indicates the employee is NOT an on-call team member – regardless of time of day that the command team is being reviewed.

Figure 4 - Color Code Explanation

Assigning Command Team Positions

Figure 5 has a list of employees, but no command team members assigned. Employees are assigned command team positions by "dragging and dropping" an employee's name from the employee list. The first step is to click the "Rearrange Command Team" button to invoke the command team

assignment function. Note the page background turns light blue which indicates the "editing positions" function is active. Left click an employee's name and drag the person's name to the position intended (Figure 7). Personnel listed on the employee list may be trained to perform one or more command positions as shown in Figure 7 where "EVAC TWO" employee can serve in the Notification and Evacuation command roles. Click on the "SAVE CHANGES" button to save the modifications to the database.
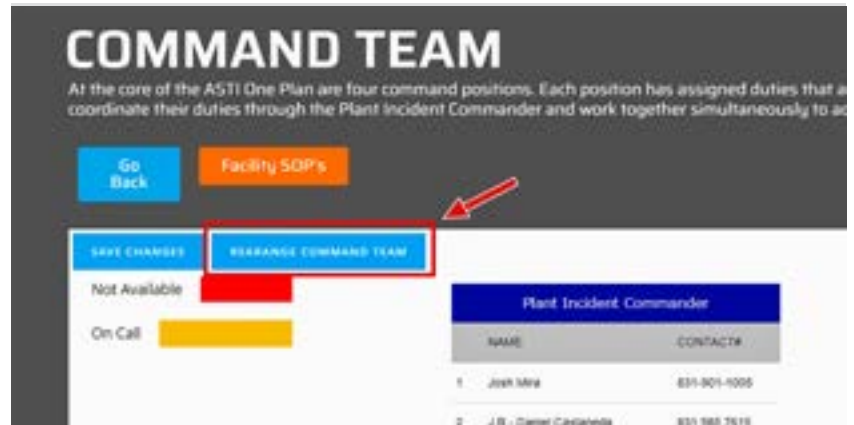
Figure 5 - Arranging Command Team Roles

Figure 7 - Command Team Assignments

The One Plan web app automatically calculates the time of day and compares start/stop shift times of the employees. The results are displayed in the four team roles at the time the Command Team page is accessed (Figure 7) .

Notice the background color of EVAC TWO is white in the command positions table and amber in the employee list. This indicates EVAC TWO is available to respond. EVAC TWO is a night shift employee whose hours are midnight to nine am. At the time of review EVAC TWO is not on site. The intent of this page is to assure that the first name on the command team roles is a member that is on-shift at the time of need.

Figure 6 - Drag and Drop Employee Positions

Assigning Command Team Positions ...continuation

In order to keep the resources sync'd to on-site availability for most-immediate site response time it is necessary to manually position the lead person for each command team listing. All four command team entries on Figure 7 happen to be on-site and available to respond in this document's example. At 8:00pm the command roster can be amended to move the person going off shift down on the list and bring up the qualified responder to the lead position of each command role team. The names with RED field color, such as Command Three in Figure 7, means that person is not on-shift and not an on-call responder.

Editing the command team member's position on the command team roster

Click on the "REARRANGE COMMAND TEAM" button to update the command team status. Drag the team member's name from the current position to the desired position. Click the "SAVE CHANGES" button to capture the update.

A team member's name can be removed from a command role by clicking it and dragging it away from all the command role tables. The name will disappear from the location after the left-mouse button is released. Click the "SAVE CHANGES" to make the change permanent. The re-assigned employee's name is still available on the employee list to be assigned again as desired.

An employee's name can be moved from one command role to another command role directly by dragging and dropping, then clicking "SAVE CHANGES" button.

Note: If a command team lead member is scheduled for duty but not on-site he/she must request that the status be changed.

Editing the command team member's information

Double click the name of the responder to bring up the editable fields of the responder's record (Figure 8). Make the changes desired and click the "UPDATE EMPLOYEE" button to save the information. Clicking "CANCEL" button will negate changes that had been input.

Double clicking the name of a command team member from any of the four command team role groups will bring up the contact information of the member. The contact information CANNOT be edited from this view of the information. (Figure 9 on the next page)
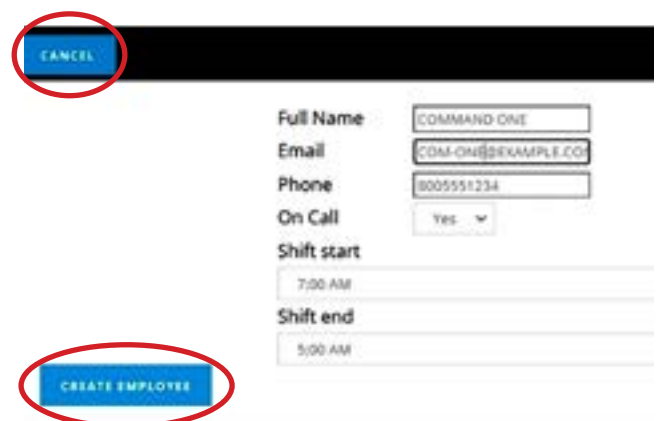

Figure 8 - Editing a command team member's information

Editing the command team member's information

Figure 9 - Command team member contact information

The information presented as shown in Figure 9 is not editable in this view. Changes made at the Employee List automatically flow to the command role positions where the employee is listed.

Uploading Facility SOPs to the app

Facility emergency plan and process safety SOPs are included in the playbook footer, and within selected playbook pages. The Facility Ammonia Response CONOPS will be located in the Footer, after the CONOPS template (Appendix 2) has been completed by the Playbook Champion. The system operations SOPs relate to the Hazard Zone (HZ) Playbook pages for the four stages of response are uploaded to the system from the Command Team page. Each HZ has its own set of SOPs. These SOPs are available during a response in the footer area. The Facility SOPs (F-SOPs) are uploaded as PDF files. Access the F-SOPs utility page by clicking on the Facility SOPs button at the top of the Command Team page (see Figure 10).

Figure 10 - Facility SOPs access button

Figure 11 presents the names of the F-SOPs that are associated with command team roles and actions within the playbooks. The content of these SOPs may be found in the SARA Title III annual filings presented to the Local Emergency Planning Committees (LEPC) or the CONOPS adopted by the Facility and the AHJ.

Figure 11 - Facility SOP Upload Page

Uploading Facility SOPs to the app ...continuation

Uploading SOPs. Click on the "Choose File" button adjacent to the title of the SOP being uploaded. The system opens the file selection function to identify the file from the library of support files that have been prepared by the Provider or facility champion. ASTI provides a fillable PDF (Appendix 2) for a CONOPS for the facility, the Playbook Associate and the One Plan Facility Champion to use for the One Plan is developed for the site. Click on the "Choose File" button adjacent to the title of the SOP being uploaded.

The system opens the file selection function to identify the file from the library of support files that have been prepared by the Provider or facility champion. The One Plan stages the identified file in the queue to save to the app database (Figure 12). Click the UPDATE button after each file is selected to assure the files are successfully saved to the One Plan app database. Upload success is reported by One Plan (Figure 13).

Figure 12 - Uploading a F-SOP to the One Plan app

Figure 13 - Confirmation that the F-SOP resource was updated

Clicking on the "GO BACK" button returns to the Command Team screen (figure 11). Click "FACILITY SOPS" button to return to F-SOP tasks. Clicking the "GO BACK" button from the Command Team screen returns to the main Dashboard page (figure 10).

Creating Annotated JPG images to load into the One Plan App

The majority of the One Plan information content is presented by an annotated JPG image. The following information describes how to use the Microsoft Power Point® (PPT) program to generate the images that will be uploaded to various Master Map PIN images and Playbook instruction images. Power Point® is designed to save slides in many different formats. The slides must be saved individually with unique names that relate to the function at hand in the playbook or master map views. The images inserted in the PPT may be high definition (several megabytes) however the slide with the image saved as a JPG will be less than 1 MB in size. The One Plan app requires uploaded images to be less than 1 MB in size. It is convenient that Power Point saves slides in JPG format at a size that loads quickly when called up when using the One Plan.

Generating a JPEG file using Power Point

Create a PPT file and save it in the corresponding hazard zone folder located in the OP Library folder on the computer or network being used. Name the PPT so it reflects the PIN description, e.g., HZ1 for the images related to Hazard Zone 1 images. The PPT will likely have multiple pictures to be edited for use as a JPG uploads to the appropriate location in the Playbook.

The Web App has Word docx file templates for the Playbook development provided with the subscription. There is a template providing icon images of the PINS (below and on the next page) used in the app available to copy/paste into an image to be uploaded. Text boxes with specific instructions can be added to the slide. The text box may be formatted with a fill style color that stands out from the image content.

Edit your pictures in Power Point to add notes and comments

The system operations SOPs relate to the Hazard Zone (HZ) Playbook pages for the four stages of response are uploaded to the system from the Command Team page. Each HZ has its own set of SOPs. These SOPs are available during a response in footer area. The Facility SOPs (F-SOPs) are uploaded as PDF files. Access the F-SOPs utility page by clicking on the Facility SOPs button at the top of the Command Team page (figure 11 on page 10).

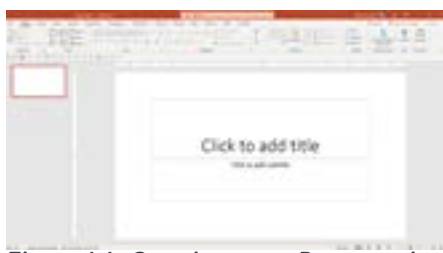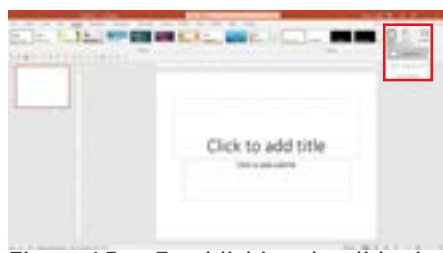| STEP 1	STEP 2	STEP 3
Open Power Point and create a new file.	Select the "DESIGN" menu function and click the pull-down menu of the "Slide Size". Select "Standard – 4:3" which imports better into the One Plan app	Click on "HOME" menu then click on Layout, finally click on Blank to give a clean pallet for insertion of graphic and annotation objects going forward.

Figure 14 - Opening a new Presentation

Figure 15 - - Establishing the slide size
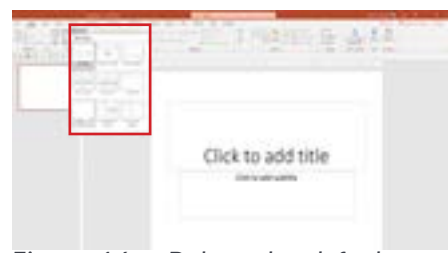
Figure 16 - Delete the default text boxes

STEP 4

Right-click on the first slide thumbnail after setting the size (4:3) and removing the default text boxes. Select the option to "Duplicate Slide". This task can be repeated as desired to build a set of slides ready to accept new images and annotations.
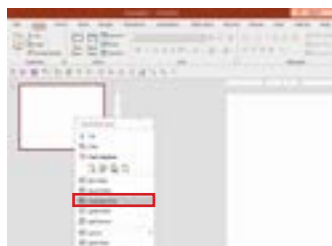

Figure 17 - Duplicating the Blank Slide

STEP 5

Click on "INSERT" menu, click on Picture, click on This Device, browse the folder containing your picture, click on it, then click on Insert,

Now resize the picture to cover the Slide.

Figure 18 - Insert a picture as background,

Generating a JPEG file using Power Point

Add text boxes to give instruction relative to the image on the slide. The beige text box background shade is selected by right-clicking the text box to bring up the "Format Shape" function. Make the selection as desired.

Figure 19 - Insert a text box to provide information relative to the image

Add other objects from Power Point's insertion menu that add information to the message of the JPG that will be generated from the Power Point file. Note the PIN icons inserted in this demo graphic. ASTI provides a Microsoft Word® document with the pin icons with the One Plan subscription.

Figure 20 - Add other objects to enhance the information presented on the image

The INSERT SHAPES menu presents arrows, circles, ovals, frames, text boxes that can be used as desired by the provider / user to enhance and make annotations into your pictures.

Figure 21 - Text boxes can have its attributes enhanced to draw attention to the content of the text box

When the Power Point file is complete save it as JPG format as described in the graphic below.

SAVING Slides as .JPG image files

- Click on "File" on the menu at the top of the page

- Scroll down as select "Save As"

- Click on the downward icon of the second row of the save function menu

- Scroll down to select .JPG (JPG format creates a low file size perfect for the web)

- The entire presentation can be saved as a batch. Power Point auto names the Slides as Slide 1, Slide 2 etc. These files can be rename properly to make Master Maps and Playbook pages easier.

- Individual images can be saved. Power Point will ask for a name for the file being generated.

Generating a JPEG file using Power Point

Using a short cut method to duplicate a finished slide and replace the graphic with another.

- Right click on the slide thumbnail at the left side of the PPT program. A dropdown PPT menu appears.
- Select the "Duplicate Slide" option.
- A new slide is presented that is a clone of the prior one.
- Right click on the primary image. A drop-down menu appears.
- Select the "Change Picture" option and then "From a File." option.
- The slide will update with the new image and the icons; text boxes are then updated as appropriate.
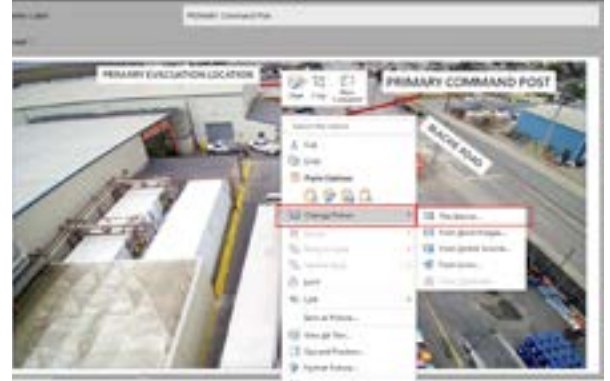

Figure 22- Slide duplication and graphic replacement

The slide is now ready to be 'saved as' a new jpg file individually if the group save has already generated the folder of numbered saved slides.

End of "How to use Power Point to create annotated JPG images for insertion into One Plan Master Maps and Playbook pages".

Master Map Descriptions

The Master Maps are designed to provide key information that will be available to the end-users as stand-alone page (during editing) and will be available from the "Site Navigation" list in the footer of the Playbooks being used during the "Response" Playbook mode (Fivgure 23).

The Master Maps include the following topics: 1. Site Map, 2. Utilities and Monitoring Systems, 3. Built in Fire Protection, 4. PPE, Decon, and Medical, 5. On-site Storm and Wastewater Control, 6. High Hazard Locations, and 7. Receptor Zone Locations.
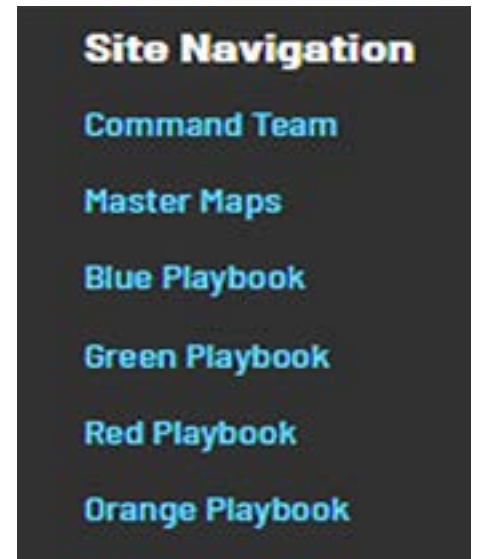

Figure 23- Footer Navigation LInks

Map 1 – Site Map NOTE:
All seven Master Map pages have similar function and purpose

Click on the Master Maps button on the dashboard or the link found at the footer of each page of the One Plan App. The first map opened presents itself by default is the Site Map (#1). This map presents the overhead view of the facility. This map is where the Hazard Zones (HZ) are identified by placing a PIN. Other essential PINs include command posts (CP), evacuation gathering locations, rally assembly locations and other PINS listed on pages 21 and 22.

The "Hand" icon does not have a function. The "Circle" icon can be used to overlay a shaded circle on the map. The radius can be set by typing in the value on the "set circle's radius" line and click either "FEET" or "METERS" units as desired. The circle can be given a label and the data type can be selected from the drop down menu.

Each PIN is positioned on a satellite image of the facility. The coordinates of the origin of the site image are connected to the physical address of the site. When site maps are selected the center of the image presented is the approximate center of the facility. The PINs are located on the site image by "clicking & sticking" (C&S) mouse manipulation. Click on the PIN icon found at the top of the Master Map view to add a new PIN.

The PIN's function is selected from a drop-down menu when loading a new PIN on a map.

Figure 24 - Master Map 1 Pin insertion

Map 1 – Site Map NOTE: ...continuation

Creating a PIN Location (Figure 24): Click on the PIN icon at the top of the page and move the mouse cursor (cursor is cross-shaped) to the general area that the pin is to be inserted. Plant the pin by clicking on the left mouse button. The drop-down menu of PIN types will appear at the left of the web page. These are the PIN functions that are related to Master Map 1 – SITE MAP.

Each pin has an "Additional Information" function associated with it. The Hazard Zone pin has more information functions associated than all the other pin types.
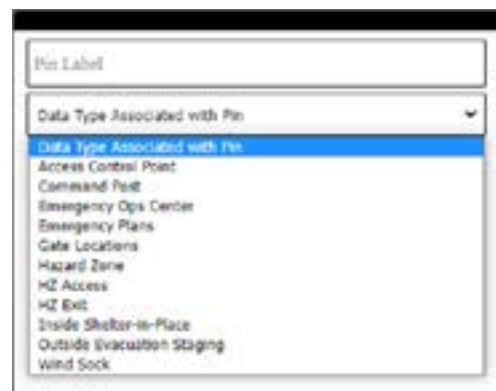

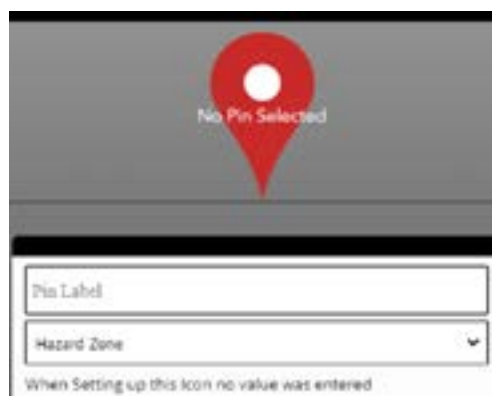*Figure 25 - Master Map 1 Pin types*

Figure 26 - Naming the Pin

Click on the blue "Submit" button at the bottom of the utility pane. The page will refresh and present the new Hazard Zone pin on the satellite image.

Clicking on the satellite view HZ pin brings up a new utility pane at the left side of the web page. Click on the "Edit Pin Position" to invoke the drag and drop utility to move the pin to another location on the site map. The site map can be "zoomed in" on to give more clarity of placing the pin exactly where it is needed.

Each MM PIN has a "PIN Image & Details" function that presents the opportunity to attach a photograph of the PIN object and written statements by which instruction relative to the PIN function can be written. These resources are available on the "MAP" tab function in the One Plan Playbooks (PB). When viewing the PIN, whether by MM view or withing PB views, the information associated with the PIN can be opened for responder reference.

Figure 27 - Clicking the Edit Pin Position brings up the utility to move the pin

Master Map Descriptions

Map 1 – Hazard Zones

Figure 28 Overhead site view - HZ PINs and other PIN objects are placed at the discretion of the facility champion.

Figure 29 - Using the "Pin Image & Details" link on the PIN attribute pane (see Figure 27) presents the utility where additional pin information can be added to a text box.

Map 2 – Utilities and Monitoring Systems

Figure 30 - Electrical service mains and other utilities system control panel, an ammonia monitoring control panels can be called out on MM2

NOTE: PIN details on pages 21-22

Figure 31 - Additional PIN information photos and instructions provide focused information for use in an emergency.

Note: PPT editing information is located on pages 11-14.

Map 3 – Built-in Fire Control

Figure 32 - The location of the resources available from the drop- down list are positioned on the associated Master Map page. Note that the PIN for HZ1 is not seen on this page. This is to reduce the confusion brought about by "too much information".

Figure 33 - information"This image shows the Fire department connection to the master fire protection water system control system gate valves

Map 4 – PPE, Emergency Equipment, Decon, and Medical

Figure 34 - Not every location will have resources associated with each of the available PINs associated with Map 4. It is alright – it is an opportunity to review the PIN functions that might need to be considered for adding to the on-site resources on hand.

Figure 35 - Site personnel and first responders need to have knowledge of on-site resources that should be used in the first 30 minutes of an emergency - Essential for life-safety and injury control.
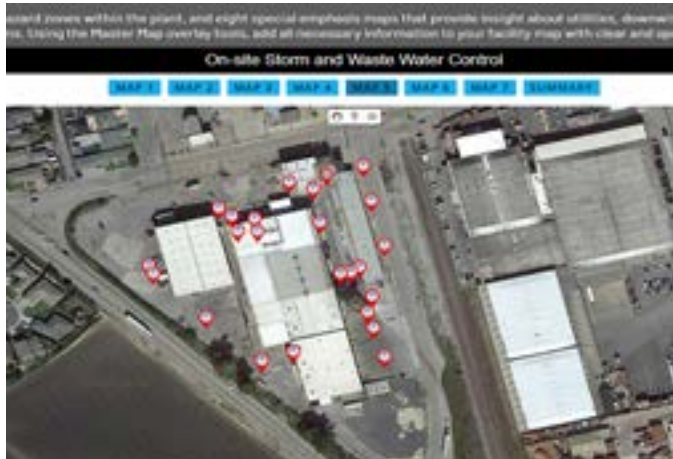
Map 5 – On-site Storm and Waste-Water Control

Figure 36 - Waste water drain entry points and storm drain entry locations called out on a specific page reveals how many vulnerabilities are present on a property. Wastewater service locations are the same as storm water service inlets. The response strategies are not the same for the two different types of drain systems. See Map 5 PIN details on page 21.

Figure 37 - Facilities may decide to add resources such as weighted flexible covers to block in-flow of oil or other liquid contaminates from entering a storm water drain system. Protecting the downstream environmental receptors.

Map 6 – High Hazard Location Map

Figure 38 - A high hazard location on property can be more than a chemical or fire threat. It can be a location where there is high probability of injury or equipment damage, such as the tight area at the location illustrated

Figure 39 - The high-hazard area map can be used to improve awareness and as a training and information resource prior to an emergency taking place. Using a map like this can prevent the incident from happening in the first place.

Map 7 – Receptor Zone

Figure 40 - On-site/Off receptors Pinned in Master Map 7

Figure 41 - Each receptor given an identifying number that corresponds to the receptor provides the notifications supervisor easy access to receptors contact information.

Summary tab – ALL PINs showing from all pages

The summary page presents all the PINs associated with the site. It is apparent the image can be overwhelmed with content. The additional PIN information data is available for any PIN on the page that has additional information loaded into it.

The page can be used by the Facility IC interfacing with the public first responding captain. Showing the "big picture" to the captain may help the process of prioritizing the life-safety concerns for on-site and off-site personnel.

Figure 42 - The ALL PINS page is very congested. Collating PINS by function on specific Master Map pages organizes a large amount of information effectively.

PIN Names Associated With The Master Maps

Map 1–3 PIN Names

MAP 1	**MAP 2**	**MAP 3**
Pin Label	Pin Label	Pin Label
Data Type Associated with Pin	Data Type Associated with Pin	Data Type Associated with Pin
Data Type Associated with Pin	Data Type Associated with Pin	Data Type Associated with Pin
Access Control Point	Ammonia Control Panel	Escape Hoods
Command Post	Electical Power Supply	Fire Hose Standpipe
Emergency Ops Center	Fire Control Panel	Fire Pumps
Emergency Plans	Fire Extinguisher	Fire Sprinkler FDC
Evacuation Staging	Main Electrical Shutoff	Fire Sprinkler Riser
Gate Locations	Main Gas Shutoff	Fire Wall 1 hr
Hazard Zone	Main Water Shutoff	Non Sprinkler
HZ Access	Programmable Logic Controller	Portable Fan Location
HZ Exit	Security Camera	Post Indicator Valve
Inside Shelter-in-Place	Security Camera Feeding	Rescue Equipment
Outside Evacuation Staging	Utility Gas	Roof Ventilation
Rally Point	Ventilation Fan Exhaust	Ventilation Opening
Wind Sock	Water	

Figure 43 - Master Map 1 Site Map Pin Names

Figure 44 - Master Map 2 Utility and Monitoring Systems Pin Names

Figure 45 - Master Map 3 Built-in Fire Control Pin Names

Map 4–6 PIN Names

MAP 4	**MAP 5**	**MAP 6**
Pin Label	Pin Label	Pin Label
Data Type Associated with Pin	Data Type Associated with Pin	Data Type Associated with Pin
Data Type Associated with Pin	Data Type Associated with Pin	Data Type Associated with Pin
Defibrillator	Storm Drain	Flammable Liquids
Emergency Equipment	Storm Drain Cover	Fuel Tank
Emergency Shower	Storm Water Catch Basin	High Fire Load
Medical Supply	Storm Water Control Point	High Risk Safety
Medical Treatment Area	Waste Water Clean out or Grease Trap	High RIsk Utilities
Medical Treatment PPE	Waste Water Sump	LPG
		Risk Area
		Safety Alert

Figure 46 - Master Map 4 PPE, Emergency Equipment, Decon, and MedicaPin Names

Figure 47 - Master Map 5 On-site Storm and Waste Water Control Pin Names

Figure 48 - Master Map 6 High Hazard Location Map Pin Names v

Map 7 – Receptor Zone Pin Names

Figure 49 - Master Map 7 Receptor Zone Pin Names

Figure 50 - Hazard Zone attribute list

It is not required to have a pin assigned for every pin name on each master map page. Review the list of pin names to plan out the photographs that will be used on the master map pages.

Each pin has attributes that can have an annotated JPG file attached to it for use in a response or in training in preparation for a response. "Pin Image & Details", "Edit Pin Position", and "View Pin Description" functions are common on all PIN types.

Assigning the A-B-C-D sides of an HZ

Sides of a Building for Command Facility Orientation

The sides of a building are to be defined by the local AHJ. There are several different approaches that are considered acceptable by the fire service. The most common approach is to define the side A (Alpha) as the location of the first-arriving fire unit. This location could be on the street side of the entrance or the location of the Incident Command Post. The One Plan developer must find out the local fire authority CONOPS for setting the Alpha Side and any other specific instructions they may have for defining the sides of an incident. The following YouTube video provides an interesting overview of a recommended method for setting up the sides of a building. https://www.youtube.com/watch?v=prvZ83ilZEg

Side A (Alpha) is the front of the building usually the side with the building/house address (Street Side). Some fire agencies use the Incident Command Post as **Side A**. From there, the labeling goes clockwise by moving left to **B (Bravo)** side, **C (Charlie)** in the rear, and **D (Delta)** on the right side of the building.
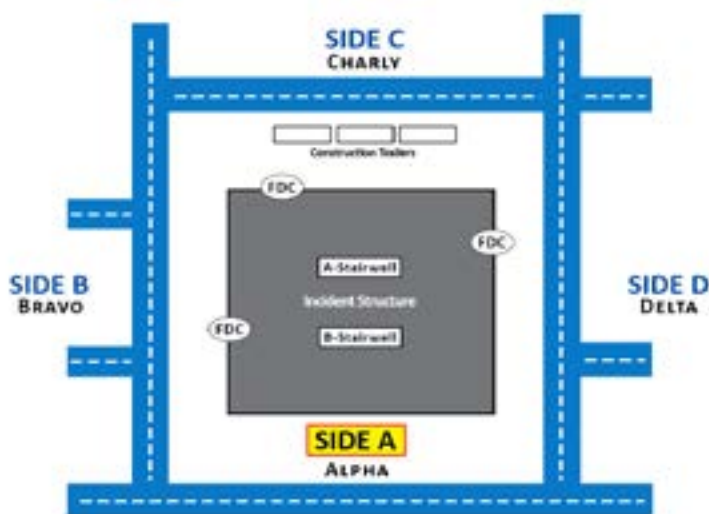
Figure 51 - The sides of a facility will be describe in the CONOPS. The AHJ may identify Side "A" being the address side or Command Post side with the successive sides called out in "clockwise" order

Figure 52 - The four sides of the HZ are presented through the "Edit HZ & Sides Info" link. These images and associated text accelerate the information exchange with a public first responder.

Setting the positions of the sides of the hazard zone for response references.

Click on the Edit Position of HZ Sides link to bring up the utility to drag and drop the side references where they should be. The "A" side is the street that is the site address. Sides "B", "C", and "D" are positioned clockwise from Side A.

Figure 53 - Hazard Zone attribute list

Setting the positions of the sides of the hazard zone

Position the sides as required and click on the "SAVE SIDES POSITIONS" button to capture the positions into the database (Figure 54).

Figure 54 – Setting and saving the side references of a hazard zone

Developing views of the four sides of a hazard zone

Click on the "Edit HZ & Sides Info" link

The App presents a utility page that is used to insert an image of the hazard zone from all four sides (Figure 56). Each image can be annotated within the image.

The "Hazard Zone Name" is the name of the PIN given when the PIN is established. The name can be changed on this page. The updated name automatically appears on other pages where the PIN is referenced.

Figure 55 – Developing the A-B-C-D side views of a hazard zone.

Images can be updated by "Choose File" function below the side images. Clicking "Remove" clears the graphic from the page. An updated image can be chosen and loaded by selecting the image to load and clicking the "UPDATE" Button.

Edit Hazard Zone (HZ) & Sides Information

Figure 56 - Loading hazard zones sides image files. This function applies only to Hazard Zone Pins

Developing A Pin Image & Details Page

Click on the "Pin Image & Details" link to bring up the utility page similar to Figure 58.

This function is available to all PINs. The page presents a place to upload an annotated image file such as seen here.

In addition to the image pane there is a text pane that can be used for special information relative to the content of the page.

Concise instructions can be listed here such as how to find the light switch, where the ammonia sensor is, and so on.

The image can be changed easily using the "Choose File" function. A new image can be selected and saved to the page by clicking the "UPDATE" button.

The text pane can be edited directly. Simple text and paragraph format functions are provided. The best font size is "LARGE". The amended information is captured and saved into the app until the "UPDATE" button is clicked again.

Figure 57 - Pin Image & Details example

It is good practice to update after each element is amended. Doing so provides immediate feedback that the intended results have been achieved.

Populating a Master Map

Deciding which PINs should be loaded onto a Master Map page

Figures 58 and 59 show the relationship of PIN types and their use on Master Map 1. This site has five Hazard Zones, Two Command Posts, Two Outside Evacuation Staging, Two Emergency Plan locations. This Master Map should have a few more PINs assigned. There are five WINDSOCKS, three GATE LOCATIONS, and an INSIDE SHELTER-IN-PLACE resources at the facility to be added to the app.

Figure 58 - Master Map 1 - Site Map - PINs Assignable

Figure 59 - Master Map 1 of a facility

The six other Master Maps have PINs that are unique to them. Refer to Figures 42 to 48 for the listing of the available PINs assigned to their associated Master Map.

All the PINs have the same attributes and functions available to them.
- "View Pin Description" is a narrative describing the purpose and use of the pin.
- 'Pin Image & Details" is the page that presents an annotated (not compulsory to be an annotated image) and a text box with information relating to the image.

Figure 60 - Pin Attribute Illustration

Build each PIN ancillary information up as appropriate for the Master Map and PIN function. Use the power of a picture to convey significant amounts of information that is understood swiftly by command team members or outside responders. This concludes the instruction for One Plan App Master Maps

Playbook Development

The One Plan "Playbooks" are developed and edited by opening the blue box entitled "Edit Playbooks". The content of the edited Playbooks will automatically load to the "View Response" mode identified in the green box mode. The Response Mode will be used by the emergency responders that are identified in the facility CONOPS located in the footer of the Playbooks.

The playbooks are organized to align with the four stages of an emergency as described in the ASTI 30-Minute Plan for the four stages of response checklist. The Playbooks add operational connection for each HZ within the facility as called out in the acronym "LANCE CAN do SIMPLE PLANS and RECOVER. The playbooks link to each HZ in the facility as follows:. These are 1) Discovery, Blue Playbook, 2) Initial Response, Green Playbook 3) Sustained Response Red Playbook, and 4) Termination and Recovery Orange Playbook. All emergency situations have these four stages engaged in some way. The response mode is used for real events or for simulated training exercises.

All uses of the response mode are archived for future reference of the facility management team when doing a training audit. It's also a good idea to use the response mode to replay near miss accidents. The steps taken to avoid the accident become very realistic and the response mode could also be engaged as a tabletop emergency response.

Figure 61- Playbooks associated with the four stages of an emergency

Playbooks

Building The Playbook Sets

A full set of Playbooks are to be developed for each Hazard Zone that is listed on your Master Map.

Each Hazard Zone (HZ) will have its own hazards, risks, and threats challenges that must be addressed e.g., the four playbooks (Discovery, Initial Response, Sustained Response, and Termination of the emergency event). For example, the Playbooks for a compressor room will be very different than a cold room or chemical storage room HZ.

Figure 62

An auto-load function will be provided for information and document uploads that are similarly functionable for more than one HZ, such as commonly used SOPs and other document uploads.

The specific needs for each HZ will include floor plan and process safety details, emergency shut down controls, escape paths to nearest rally points and evacuation staging areas, and other similar types of specific needs that only apply to the HZ. The Red Play Book will have uploads showing control plans that identify high risk system control points to isolate, and manage pressure, and fire control measures.

Figure 63

Editing the Blue Playbook

Blue Playbook Index Page

"Discovery" is the first stage of an emergency . The acronym LANCE presents the five objectives of this stage of the emergency.

Figure 64 The Index page of the playbook has links connected to the orange page tabs at the right to jump directly from the index to the associated page of the playbook.

An overview of the Blue Playbook structure.

The playbooks provide information related to the Hazard Zone (HZ) experiencing a loss of hazard containment or other emergency situation Each HZ will have it's own set of the four playbooks because each HZ offers different hazards, risks, and threats..

The four playbooks have uniform attributes which are:

1. The "TAKE FIVE" advisories. TAKE FIVE are five key points unique to each page presented by the One Plan app. Every page of the playbooks can have important informational points associated with the current page. The essence of the content of the TAKE FIVE advisories is to remind the responders to be mindful of particular challenges while addressing tasks on the playbook page.

2. The page support section listing Purpose, Strategy, References, Command, and Safety topics. These topics can be customized on each page.

3. The "CONTENT" tab button loads a page that has the information presented in Figure 65

Playbook Structure (BPB P1)

ASTI has published a 30-Minute Plan that provides a checklist for each stage of the response (Blue box Discovery stage, Green box Initial Response stage, Red box Sustained Response stage, and Orange Termination/Recovery stage).The details about how the 30 Minute Plan relates to the One Plan Playbooks is described in the Response Mode Guidebook.

A: The sandwich menu adjacent to the "A" callout in figure 65 is a short-cut icon to allow the user to jump directly from one playbook page to another within the same playbook. Clicking the icon brings up a list of playbook pages. Clicking on the desired page will take you immediately to that page rather than have to click "Next" to proceed through all of the page options.

Blue Playbook – "L-A-N-C-E" Discovery Stage
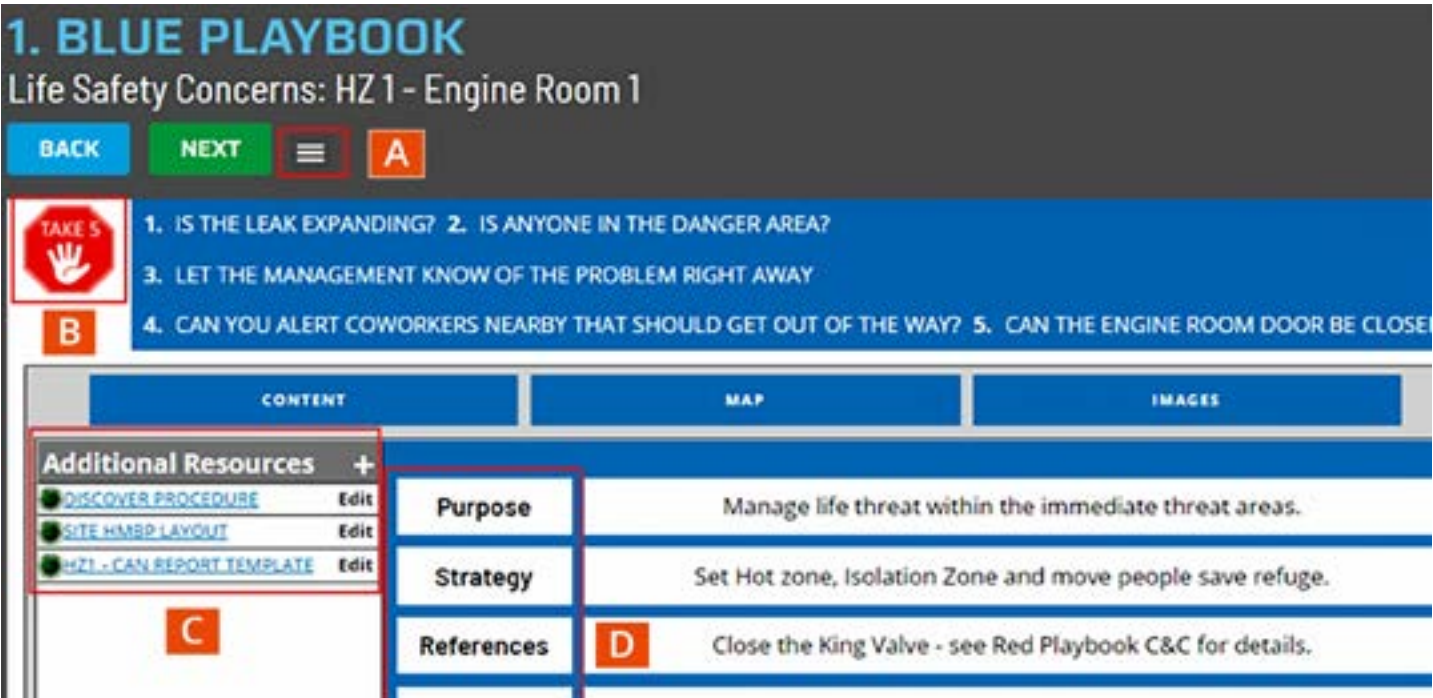
Figure 65 - Blue Playbook Content Tab Page

B: Each page has a TAKE FIVE section. Each page also has the "Content-MAP-Images" that have a TAKE FIVE section unique to it. There are approximately 54 unique TAKE FIVE message areas that can be modified to fit the purpose of the playbook page.

C: The gray CONTENT tab of each of the Playbooks has a Additional Resources column that area where additional resources can be uploaded for accessing as appropriate during a response.

Clicking on the white plus (+) icon in the "ADDITIONAL RESOURCES" pane header opens a utility for identifying a file to upload. The file can be a PDF file, a video file, or an image file. PDF files are copied to the "Downloads" folder of the computer. The browser may present the link to the file at the bottom of the web page or in the upper-right area of the web page. Double-clicking a file name will opened in athe file on a separate page of the web browser. Video and image files are presented in the pane where the purpose, strategy, etc messages are displayed

The TAKE FIVE message section (BPB P1)

Clicking on the white plus (+) icon in the "ADDITIONAL RESOURCES" pane header opens a utility for identifying a file to upload. The file can be a PDF file, a video file, or an image file. PDF files are copied to the "Downloads" folder of the computer. The browser may present the link to the file at the bottom of the web page or in the upper-right area of the web page. Double-clicking a file name will open a file in a separate web browser. Video and image files are presented in the pane where the purpose, strategy, etc messages are displayed.

D: The messages to the right of the "Purpose", "Strategy", etc. fields in the center of the playbook screen can be modified as needed to support the purpose of the playbook page.

Amending a TAKE FIVE message

• Click on the red TAKE FIVE stop sign icon on the playbook page. The TAKE FIVE section changes to the editing function as shown in Figure 66

Figure 66- Direct connect links to available Playbook pages

• Put the cursor in the box of text that you intend to modify. Select text and delete it or add text as desired.

• All five TAKE FIVE message boxes can be amended together without having to invoke the update button individually.

• Click the UPDATE button to save the work when satisfied with the TAKE FIVE information

Figure 67- Editing the TAKE FIVE advisory messages

Playbook page MAP button function (BPB P1)

Clicking the MAP button on a Playbook page will bring up an image similar to the one depicted in Figure 68
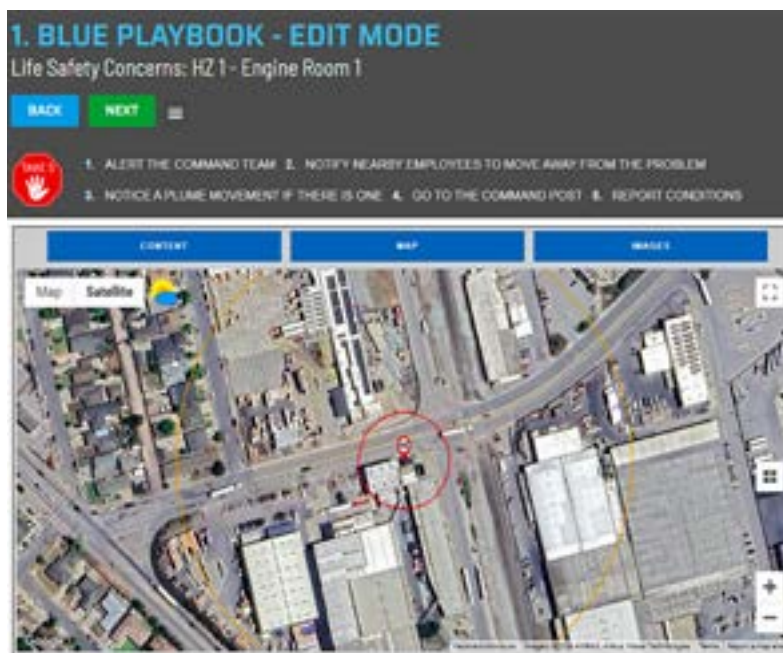
Figure 68 - Blue Playbook MAP Tab presentation. The RED inner circle is a 100 foot radius from the Hazard Zone. The Orange middle circle is at a 500 foot radius from the Hazard Zone. The Yellow outer circle is a 1000 foot radius from the Hazard Zone.

Playbook page IMAGES button function

Clicking the IMAGES button on a Playbook page will bring up an image like the one depicted in Figure 69
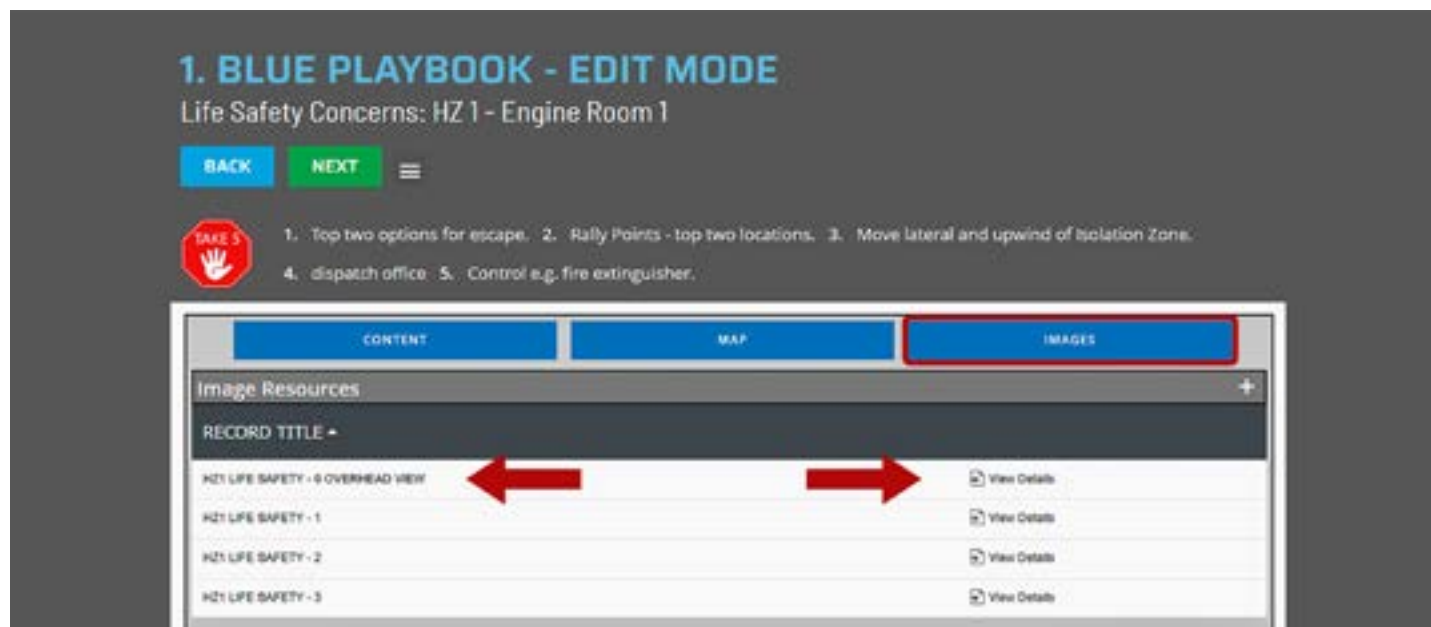
Figure 69 - Image files available when clicking "IMAGES" button in a playbook

Playbook page MAP button function (BPB P1)

Clicking on the "View Details" link (Figure 69) adjacent to the image name brings up an image similar to the one in Figure 70.

- A: The TAKE 5 section can be used to convey the key concepts regarding the information in the image.
- B: The image name is presented in this location of the page. Note that the names of the four image files on Figure 64 is exactly the same except for the last character which is a number. The One Plan app sorts the order of presentation alpha-numerically. If a new image is to be added and should come after HZ1 LIFE SAFETY -2 and HZ1 LIFE SAFETY -3 the new image can be saved as HZ1 LIFE SAFETY -2A. Use the white "+" link icon to bring up the utility to add an image and page to the IMAGES group of the playbook page. It will present this new resource image as 3 of 5.
- C: The white "+" icon to add new resources to this group of playbook images
- D: The image has three elipses 1,2, and 3 called out. The called-out section "F" provides an explanation of each of the three areas.
- E: The "Choose File" icon is used to replace the existing graphic with an updated one. Click the "REMOVE" icon if the whole image and text box is to be removed.
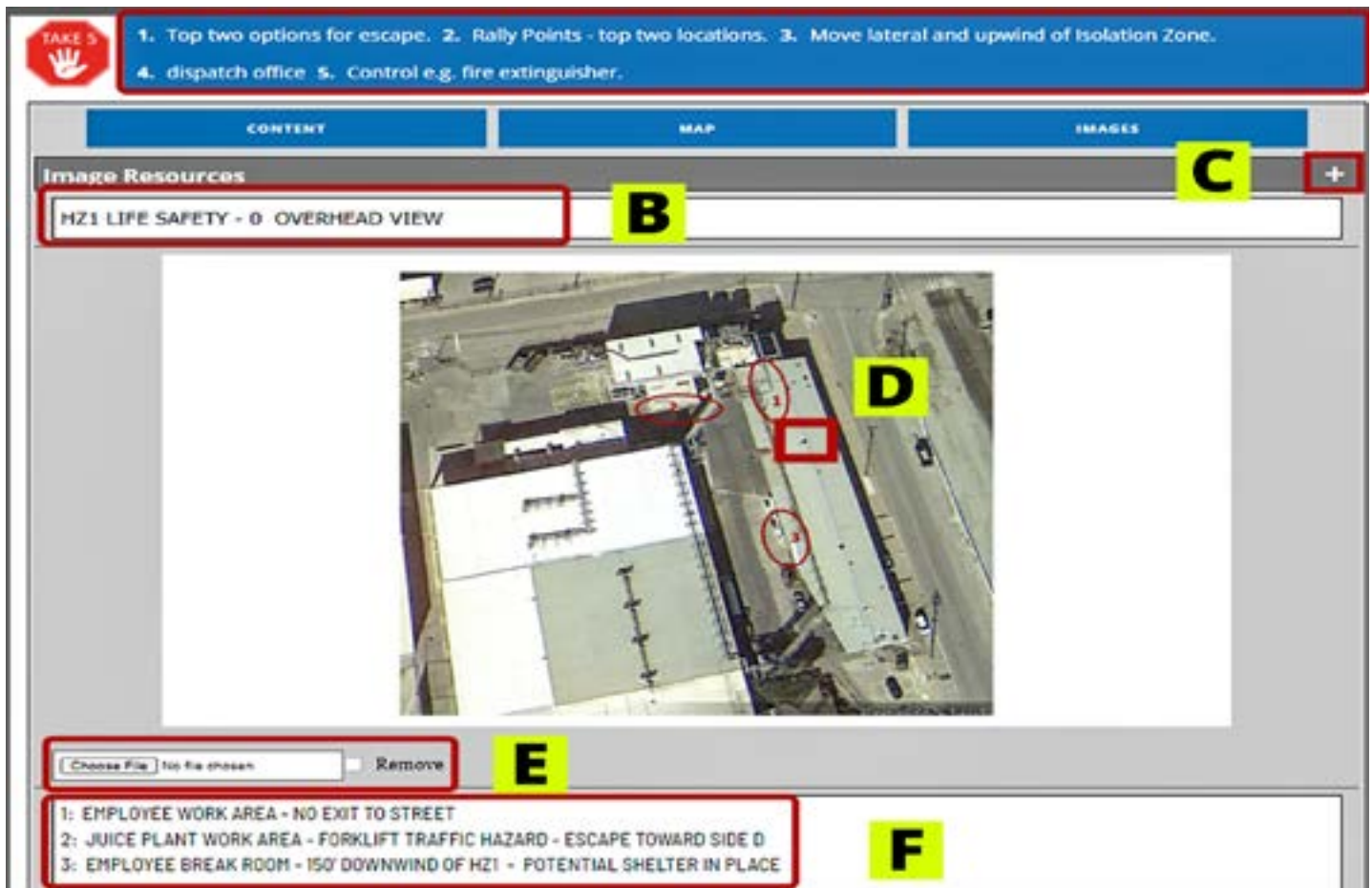
Figure 70- Explanation of the information presented in a "View Details" image of a playbook

Populating the Additional Resources Pane of CONTENT screen

Clicking the white "+" icon in the header of the Additional Resources section of the CONTENT pane brings up a page similar to Figure 70

Figure 71 - Arranging Command Team Roles

The Link Title "A" is used as the descriptive label that appears in the list of available resources "C" on the CONTENT page.

Four types of file or resource can be uploaded when the white cross is clicked (Figure 71). Image files will be presented in the space where "Strategy-References – Command – Safety" content is currently located on Figure 69.

Video files will present in the same location.

Clicking on the "Web page" option will open a new web page separate from the One Plan client you are logged into. This utility option is used to present a full screen image that has many call-outs to resources within the image.

PDF and "other" file types are presented at the bottom of screen as an icon with the file name. Clicking on the icon will open the file in a new web page. URLs imbedded in these types of files are acted on as live web links. Each opens a new web browser for itself.

The red "X" (D) will cancel the operation if clicked before the update button at the bottom of the pane is clicked.

The orange "BACK TO PLAYBOOKS" button will close the current page and bring up the playbook index page where another Hazard Zone's playbooks can be invoked.

Pre-filling the UPLOAD FORMS

The Upload Forms are defined within the CONOPS located in the Playbook footer. The Emergency System Control Plan ICS Safety Plan, and the ICS 215A hazard analysis are designed specifically for each Hazard Zone.

The ICS 201, and 214 are forms designed to be used similarly for ALL Hazard Zones.

The Upload Forms are designed to be updated during the Playbook green-labeled "Response" from the dashboard (Figure 72) This will be explained in detail in the Response Mode Guidebook.
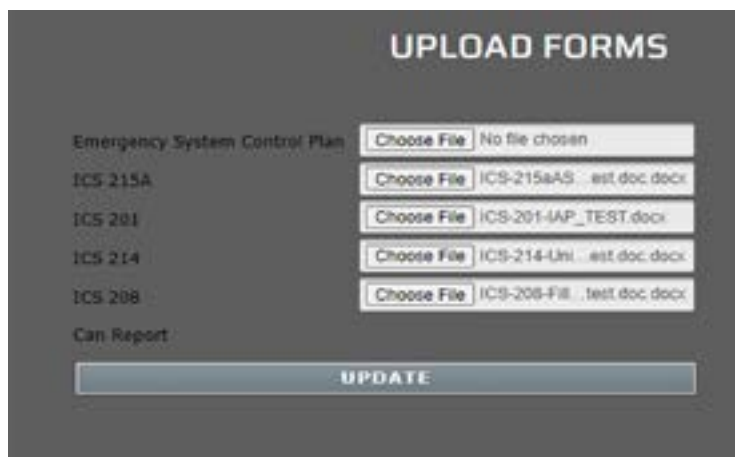
Figure 72 - Uploading forms to the App footer section

Pre-filling the UPLOAD FORMS (BPB P1)

Public safety and/or other Hazmat Technician response teams will have their own version of the ICS forms and response protocol that can utilize the facility forms as critical data resources that will aid in their ability to address the emergency event.

Figure 73 - Dashboard Tab Icons

Editing Upload Forms

The editing of the Upload Forms changes that occurs during the Response Mode must be accomplished by opening the form within the blue-labeled "Edit Playbook" Mode and then engage the changes by pushing the "Update" button.

How Additional Resources file types are displayed in the One Plan app

Figure 74 - Image files are displayed on the app page directly

Figure 75 - Facility Evacuation Steps pdf file - is downloaded to the web page base when link is clicked
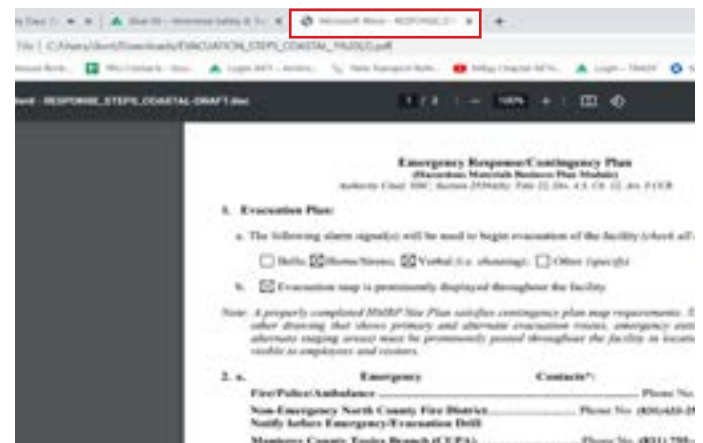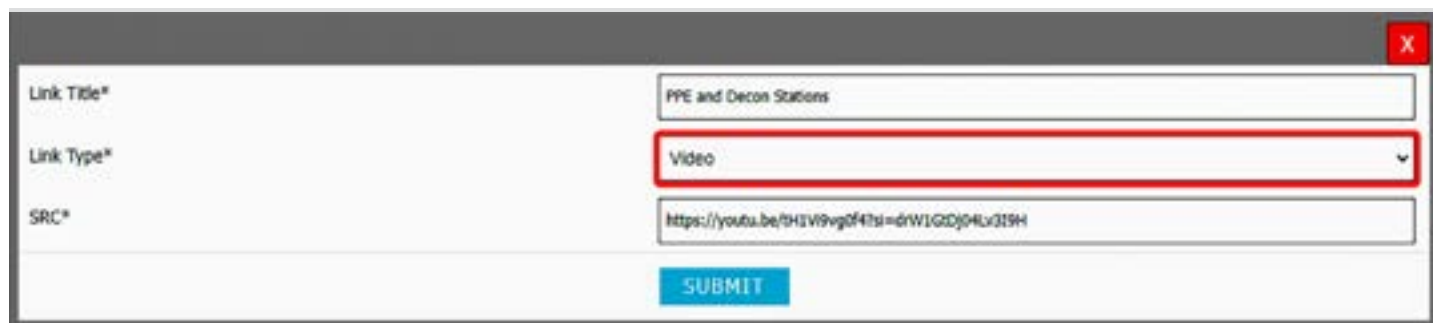
Figure 76 - The downloaded Facility Evacuation Steps PDF resource opens as a new web page when double-clicked. This is a 3-page document that can be scrolled through as needed. Click on the One Plan App web tab adjacent to the PDF view tab to return to the One Plan.

Putting a video link in an Additional Resources pane (BPB P1)

Figure 77 - Demonstration of uploading a link to a URL of a video file. The facility will need a You-Tube type site to point the One Plan app to

The URL string to place in the source "SRC" field can be a from a public You Tube location if you right-click the "Share" button located below the video pane that is playing from You Tube. There is a "copy link" option that puts the shared URL on the clip board. Paste the copied Shared Link from You Tube channel into the SRC field and press the SUBMIT button.

Figure 78 - Type in the URL target that the One Plan app will invoke when the link is clicked

NOTE: A security camera system URL can be loaded here to give a live action view of the facility when invoked

Inserting a video from a URL (BPB P1)
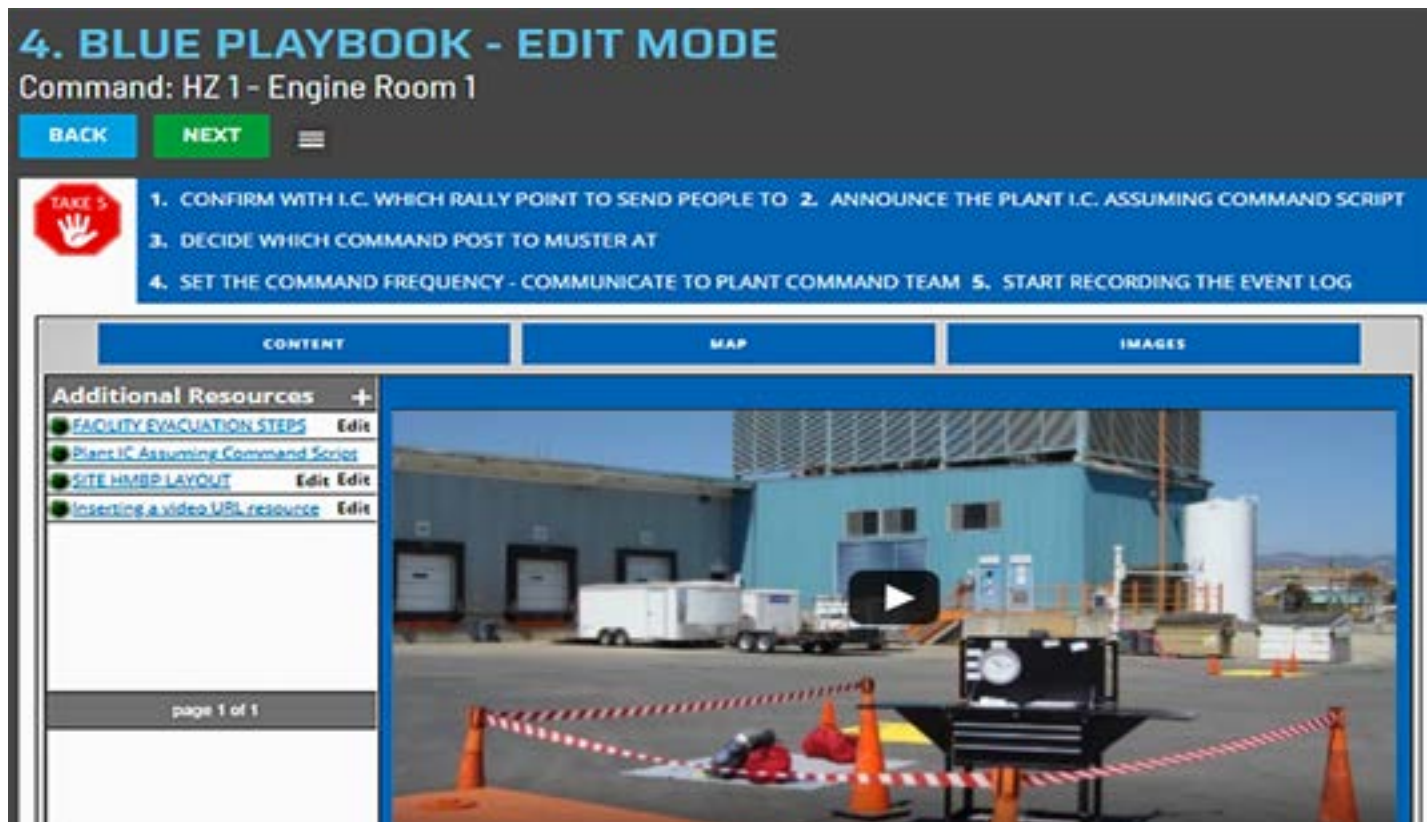
Figure 79 - The App presents the link at the left pane and presents the video in the primary pane of the CONTENT tab. Clicking the PLAY icon in the video frame starts the video on the page.
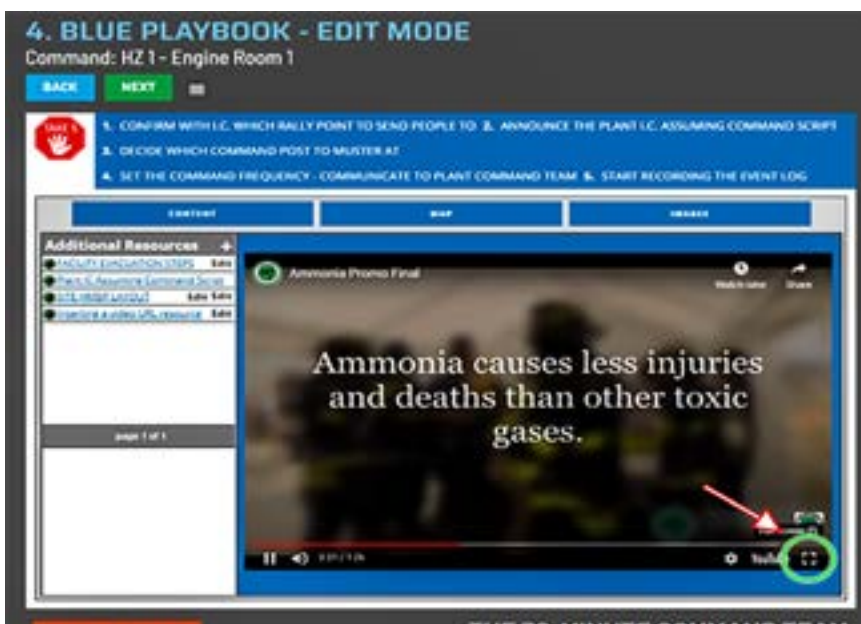
Figure 80 - The video can be played full-screen when it is playing from YouTube. - Click the escape "ESC" key to return to the prior view

Loading Information Into The IMAGES Tab Of A Playbook (BPB P1)

The IMAGES tab function of all playbooks are similar in operation and utility. It is true that one picture is worth many words. The images that are loaded are relative to the purpose of the playbook page.
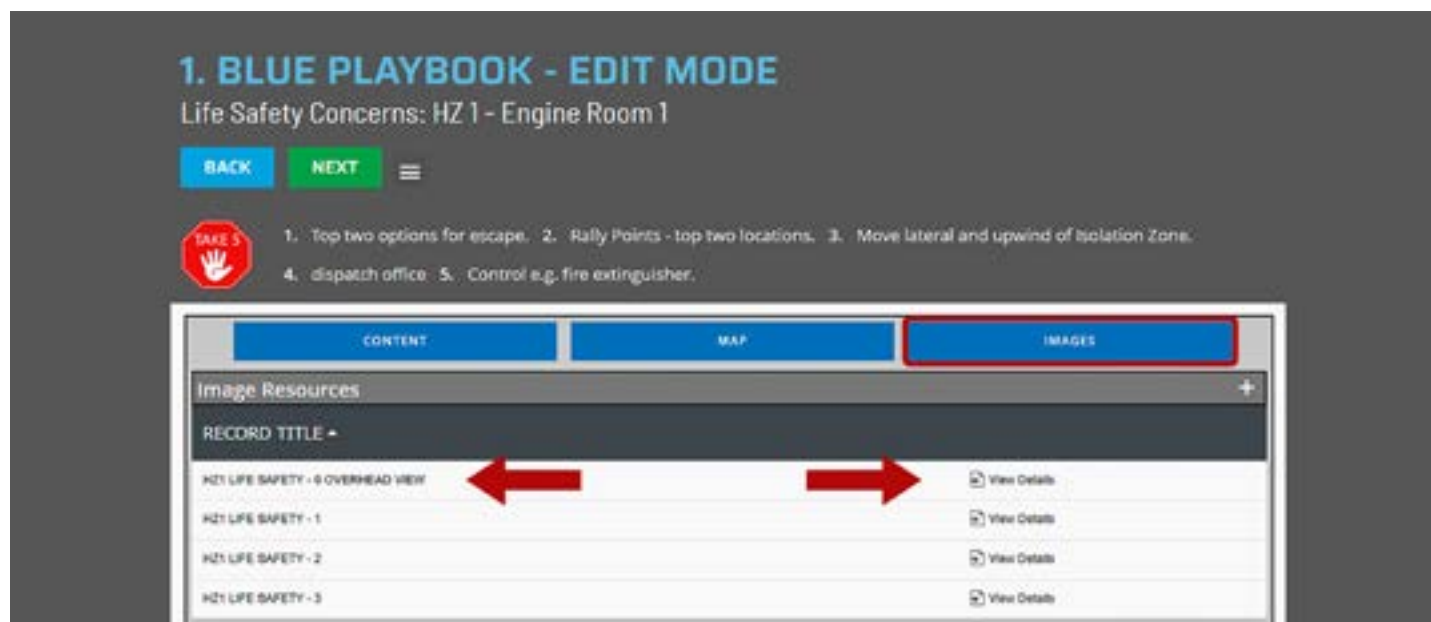
Figure 81 - IMAGES tab - Each playbook page has an Images tab that is custom to the page of the playbook

Page 1 of the BLUE Playbook relates to Life Safety issues for the Hazard Zone. The Images function are useful for training employees where the life safety concerns are and where they should escape to when the need arises to leave their work area. The Images also function to communicate information to the first responders that arrive on-scene during an emergency.

Several images can be loaded to the Images function of the page. How many depends on the complexity of the Hazard Zone and the amount of instruction required to adequately inform employees or the emergency responders on the hazards in the zone – and in Life Safety where employees may be located if exposed and affected by a release.

Note there are four images associated with life safety concerns for Hazard Zone 1. The images are presented in an Alpha-Numeric sorting based on the RECORD TITLE name. Note the titles are exactly the same until the "- 0", "- 1" etc. are encountered. Renaming titles is how a new uploaded image is desire is to be listed near the top of the order.

Each Hazard Zone should have a pre-developed plume model of worst case event and most likely event that could occur within the Hazard Zone. The ALOHA plume modeling system is a free services offered by the U.S. Environmental Protection Agency (EPA). https://www.epa.gov/cameo/aloha-software

A plume model description is documented in the Response Mode Guidebook.

Editing Image Resources on a Playbook (BPB P1)

A video description showing how to build ALHOA plume models is linked in the footer of each page of the ALL playbooks.
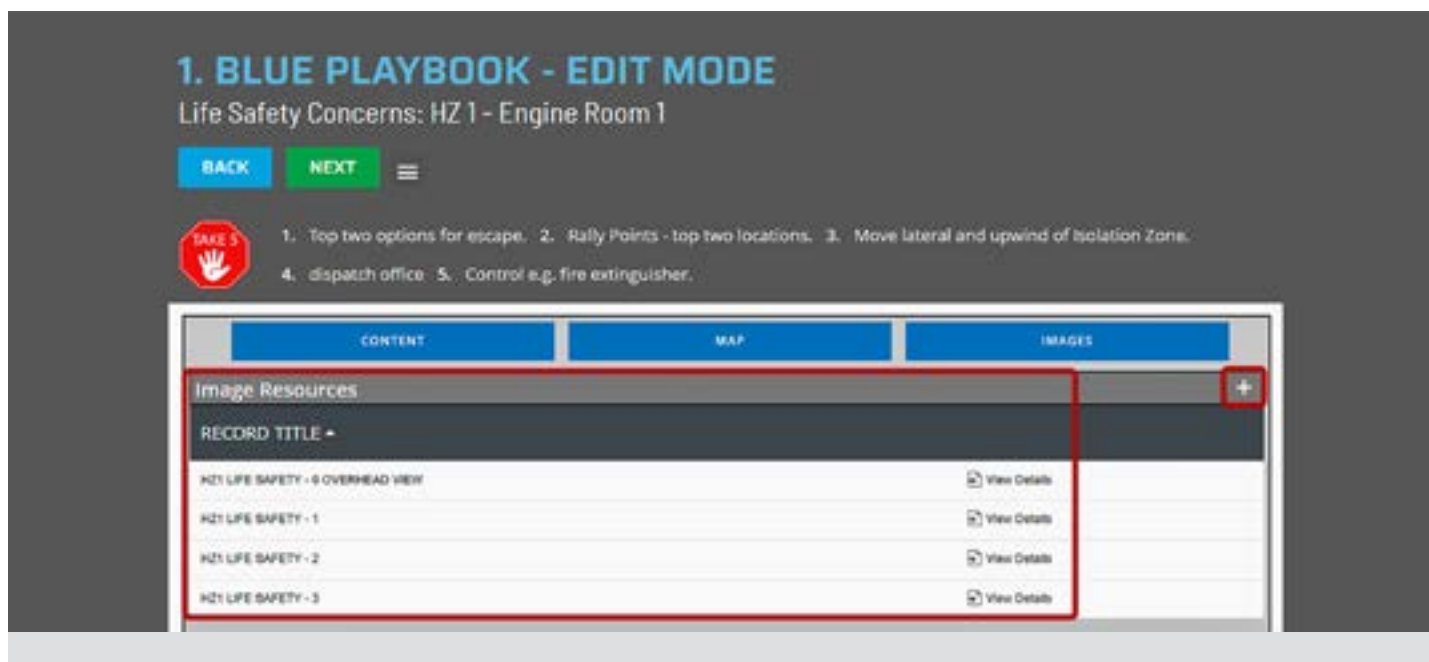
Figure 82- Posting and viewing / editing image resources on a playbook page

Clicking on the View Details link to the right of the image title opens the image for viewing or amending. Place the images in the order that would be most conducive for instruction.

Note that there is a text box on the page where explanations for the callouts is presented. A new or updated file can be uploaded by invoking the "Choose File" function if desired.

See also the "right / left" arrow icons at the base of the page. This allows the viewer to step through the image files in the order presented by record title sort.

Note the white "+" in the (Figure 80) Image Resources header. Invoke this icon to add more images to the page. The process is the same as other uploading procedures.
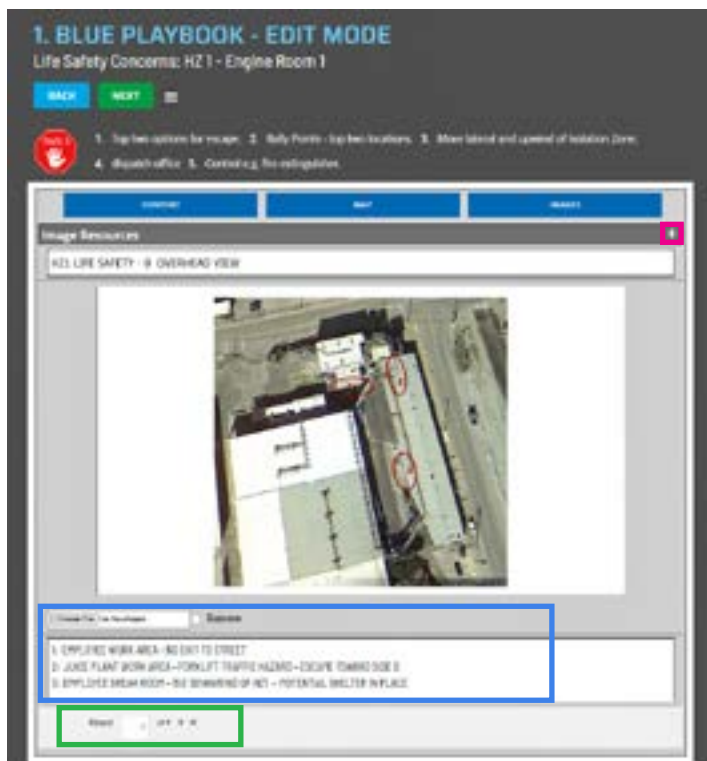
Figure 83 - Images functionality illustration

Alert - Blue Playbook Page 2

Blue Playbook Page 2 is ALERT. The first group to alert after addressing the persons in a Life Safety threat area is the Command Team. One Plan users post a board or display with the names and phone numbers of the lead persons of the four command team positions. The Content pane of Page 2 provides guidance for completing the steps of alerting.
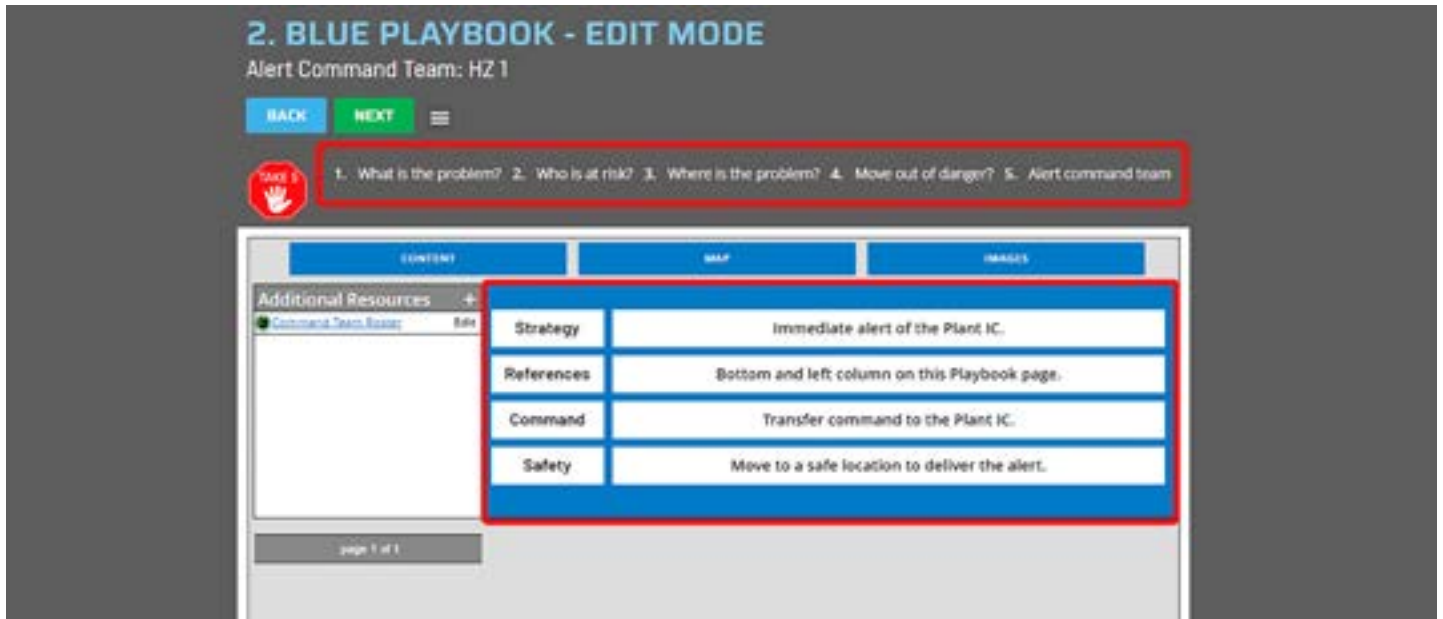
Figure 84 Page 2 layout presenting information on the "CONTENT" tab of the page

The Additional Resources pane is a place where an image can be inserted that will show on screen when clicked on.
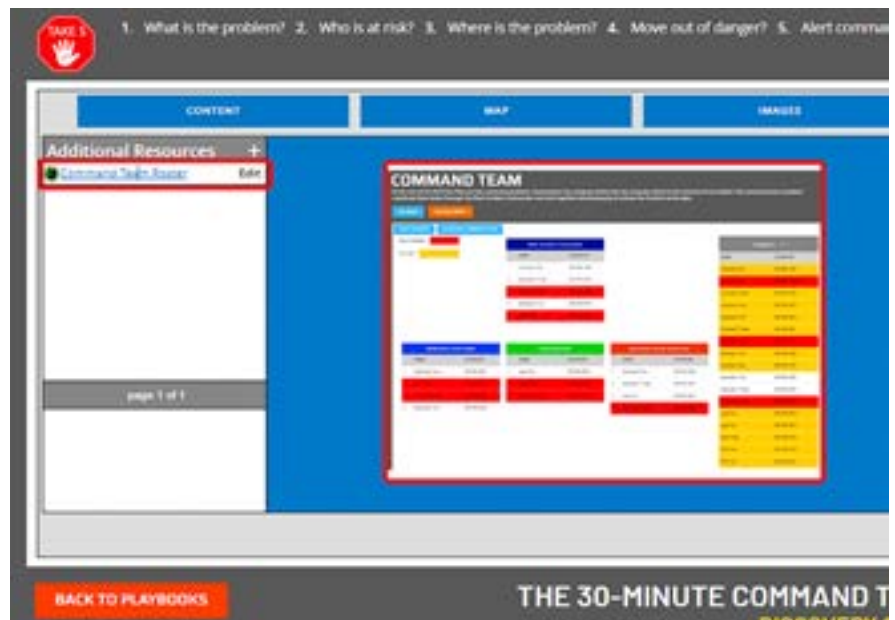
Figure 85 Example of an image of the Command Team Roster and On-Site duty list of the four command positions for the day

Notification - Blue Playbook Page 3

Page 3 is a resource for notification. The information on the Content tab provides instruction the Notification Lead of the Command Team uses to expeditiously organize the information and make the necessary notification calls based on the Level of Concern decided by the Incident Commander.
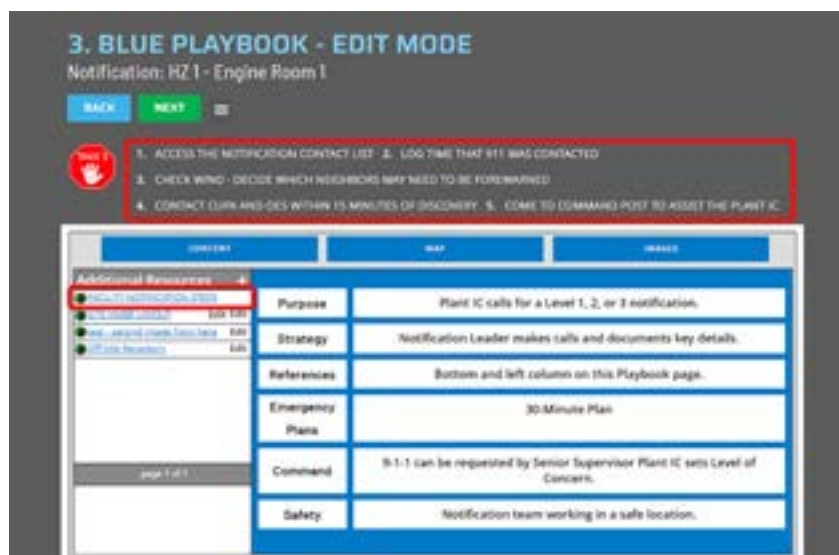
The additional resources pane of the Content tab provides resources for more involved instruction, the facility notification procedure for example.

Figure 86 The "Take Five" presents information that focuses task and decision making of the lead responder and other command team members.

Clicking the Facility Notification Steps link loads the notification PDF file to the Download Folder of the computer.

Figure 87 The annual business plan / hazards material plans that are submitted to the AHJ each year has the contact information of the surrounding facilities and the agencies to report releases to. Load a PDF of that part of the business plan submission into the Additional Resources pane of the Content tab.

The Off-Site Receptors link brings up a quick reference of the nearby facilities that may be in the down-wind plume depending on the wind direction and speed. The Notifications Lead can access MAP 7 (Receptors) to see the neighboring facilities and the contact numbers keyed to the facility. Notification Leader double-clicks on any of the PINs to bring up the Pin Image & Details link that leads to a numbered image with the contact phone numbers located in the text box. Central Cold Storage's pin was selected. Clicking the Pin Image & Details link presents the pre-configured contact list and phone numbers.
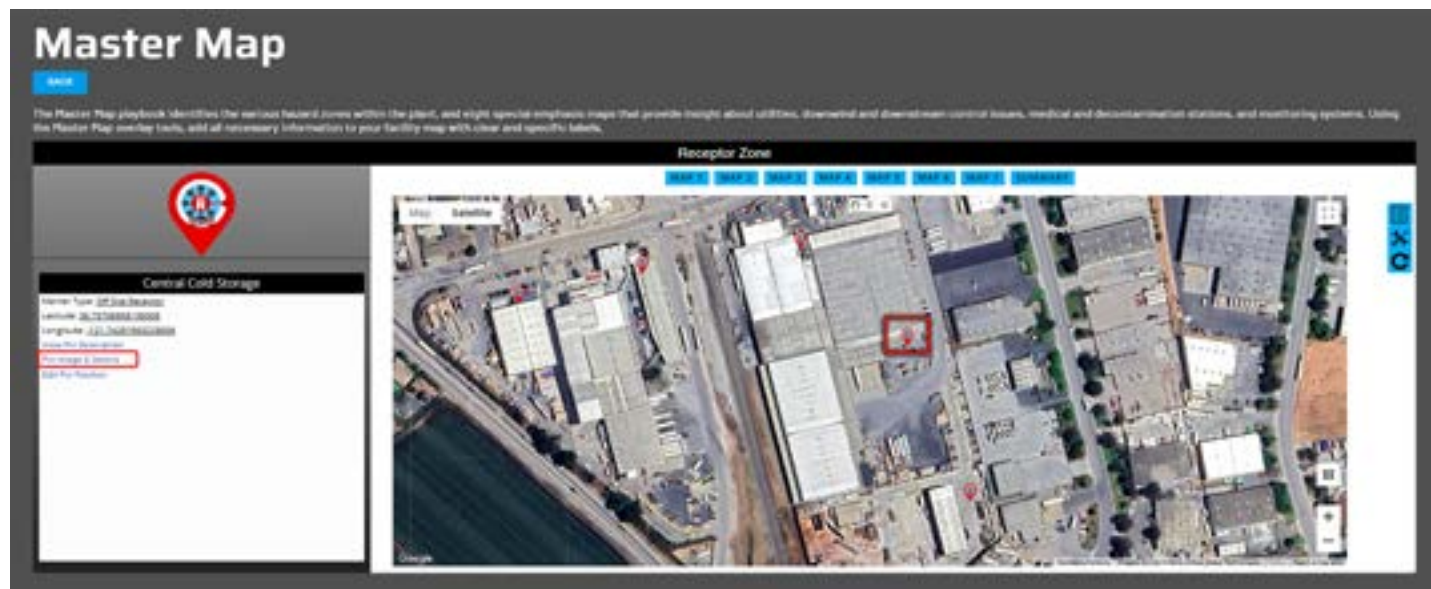
Figure 88 Click on the Pin of the neighboring facility. Then click on the "Pin Image and Details" link at the left.

The Notification Lead has the numbers for all the receptors at hand by looking at one pin's details. This approach brings the necessary phone numbers up for the Notification Lead to prioritize as required based on wind direction and speed.

Figure 89 The phone numbers to the nearby facilities are available in one resource.

Command of the Incident - Blue Playbook Page 4

Page 4 supports establishing Command of the incident. The Take Five items present the key tasks that the Command Team need to accomplish in the first minutes of an emergency after Discovery is noted. The Content Tab Additional Resources section is used to add more detailed task specific resources that may be images, PDF documents, or even an URL text string that can be copied to the clipboard and pasted onto the URL bar of a fresh web page on the computer. Note the SAFETY item on the page. refers to a video that streams to the computer when invoked.

Figure 90 The "Take Five" prompts organize the essential tasks the command team need to address in the first minutes of an emergency. Clicking the "Plant IC Command Script" opens a PDF file that the plant incident commander uses to officially declare the emergency.

Figure 91 Incident Commander emergency declaration script is found on page 10 of the ASTI All-Hazard-Response- Guidebook found in the blue footer links under the playbook dashboard.

Announcing the Plant IC Command Script is an essential task that the Plant Incident Commander does to formally begin the response activity of the emergency.

Command of the Incident - Blue Playbook Page 4 ... continuation

The Images Tab on Page 4 can be used to place explanatory images related to the site.
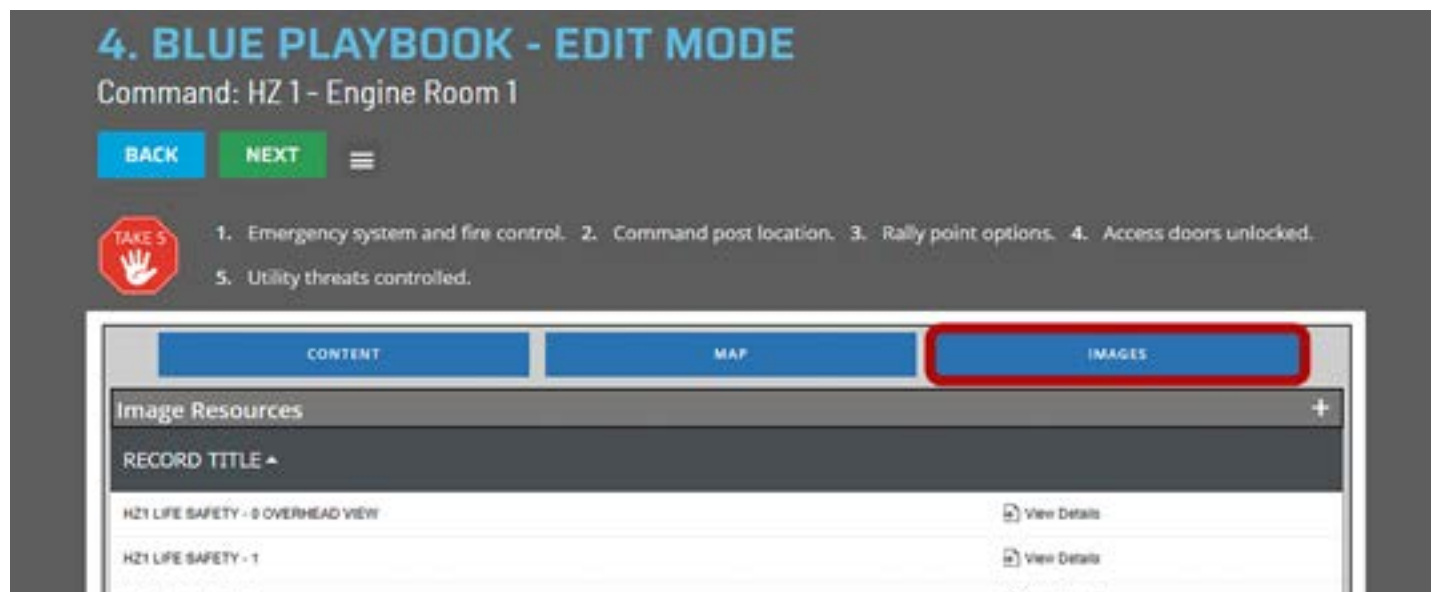

Figure 92 Click the Images tab to refresh priorities for Life Safety concerns of the Hazard Zone that is releasing.

A screen capture of MAP 1 presents the site's command post locations, evacuation muster locations, hazard zone locations, and other essential resource locations. This image can be one of the images loaded to the Images Tab.
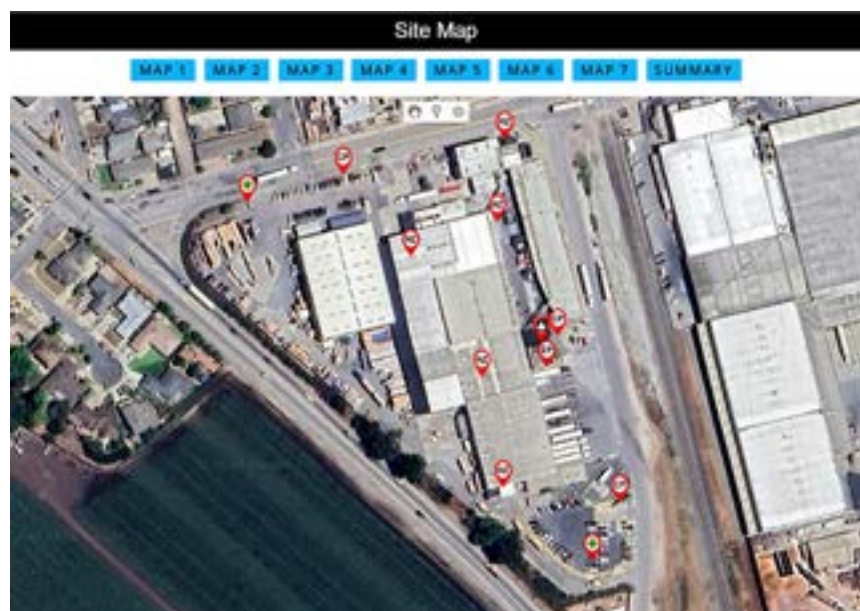

Figure 93 This screen capture can be used as an image posted to the Images Tab of the Playbook locations referred to in the Incident Commander announcement are mentioned.

The procedure for loading images on playbook pages is the same for all One Plan playbooks. The content of the images is to be related to the purpose of the playbook page e.g LANCE, SIMPLE, etc.

Evacuation - Blue Playbook Page 5

Page 5 is associated with evacuation. The Take-Five section presents key items the Incident Commander and Evacuation Lead need to consider when deciding which location, the plant personnel are to muster at. The Additional Resources section is used to provide focused tasks/resources such as the pre-considered facility evacuation steps PDF document.

Figure 94- Posting and viewing / editing image resources on a playbook page

Green Playbook Initial Response

The decision to engage SIMPLE protocols may be initiated by the Lead Responder during the first 15 minutes while the Discovery (Blue Playbook) is being implemented. Stopping the incident when it's small can be the most strategically correct effort that will significantly reduce the threats of the event.

The operational plan (CONOPS is located in the footer) should include public safety first responders need to oversee the safety of those working near the hot zone.

The public safety Incident Commander should confirm the level of complexity of the emergency event. ASTI recommends that the public safety Incident Commander request that the community emergency manager (or other available technical support person) engage ChemResponder (connection is located in the footer). This paragraph will be described in detail within the Response Mode Guidebook.

Engaging the Green Playbook "SIMPLE" procedures as outlined on the Index Page.

Loading information into the Green Playbook section of the app is similar to the instructions presented for the Blue Playbook. This section will discuss the functions that are unique to the Green Playbook.

The CONTENT tab of the Green Playbook is functionally the same as the Blue Playbook. Note that the additional resources that might be posted to the Content page should address the needs of the SIMPLE acronym. The "Additional Resources" function of the Content page works as described in the Blue Playbook explanation.

Green Playbook Index

Figure 95 - SIMPLE stage page index

The design concept for the content within the Playbooks reflect the same color coded checklist information provided in the 30-Minute Plan.

The purpose of the Green Playbook is to describe how to engage system controls to minimize the impact of the emergency event.

Reminders: Use + mark to upload attachment documents, MAP and IMAGES details.

Note Template forms and informational documents are located in the Playbook footer. The forms that are used for emergency response (that change with the conditions e.g. the CAN report is found saved the Additional Information column in the first page of the playbooks.

Green Playbook Pages

Sources of Ignition Page 1

The Additional Resources pane of the Content Tab of Green Playbook Page 1 can be used to load supplemental documents related to the control of ignition sources in the hazard zone. Annotated photos of control / isolation points of electric power that can be accessed without entering the Hot Zone might be a resource added. Resource file types behave the same way as they do in the Content panes of the Blue Playbook pages.
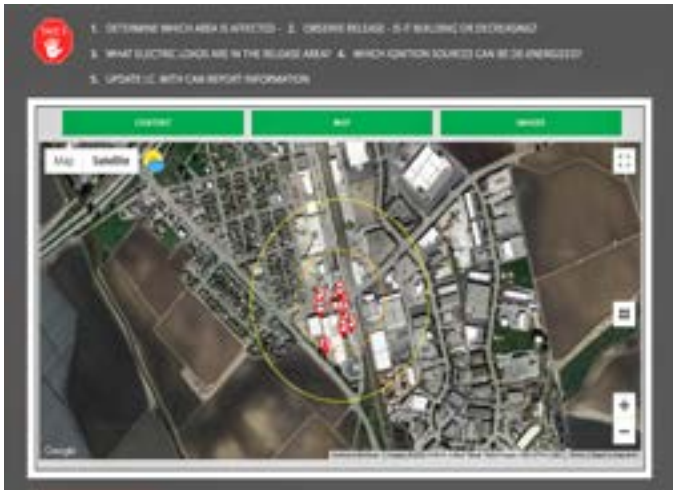
Figure 96 -The MAP tab of Green Playbook Page 1 presents information similar to the map tab of Blue Playbook pages.

Sources of ignition and fire suppression controls are different for each HZ, as defined in the ICS 215a Hazard Assessment form located in the Additional Resources column and Playbook footer. The objective is to explain the HZ fire control measures e.g., fire extinguisher locations, fire sprinkler coverage, and fire wall locations.

(Figure 96) presents the view of the MAP of page 1 of the Green Playbook. As in the Blue Playbook there are three concentric color coded rings on the image. The RED ring is a 100' radius around the Hazard Zone. This is the initial "exclusion zone – The region when HZ-1 is having an issue.

The AMBER ring is a 500' radius that defines an zone that should be considered when a "moderate" release impact is taking place. The YELLOW ring is the area of concern when a large release event is happening. People in the affected area, adjusted for prevailing wind, need to be contacted to protect themselves e.g. shelter in place or evacuate as the Incident Commander requests.

The IMAGES TAB of the Source of Ignition concerns of Green Playbook Page 1 is useful when an annotated photo plus the more extensive instructions in the text box are loaded to provide significant information for actuation of the ignition source control point.

Figure 97 -This image of the control point for ignition is uploaded to the Images tab of the Green Playbook.

Green Playbook Pages

Isolate the Release Page 2

The Additional Resources pane of the Content Tab of Green Playbook Page 2 can be used to load supplemental documents related to the control of ignition sources in the hazard zone. Annotated photos of control / isolation points of the refrigeration system that can be accessed without entering the Hot Zone might be a resource added.

Figure 98 - CaptionThe uploaded additional resource image shows where the control panel that is outside of HZ 1 engine oom is located.

Maps Page 2

The MAP Tab of Green Playbook Page 2 allows for an annotated image that presents an isolation control point that can be accessed without entering the Hot Zone. Figure 99 depicts location and description of two control points outside of the Hazard Zone engine room.

Figure 99 - Locations "A" and "B" present where the pressure control equipment is located outside of the HZ 1 engine room.

The Green Playbook Pages

Isolate the Release Page 2 ... continuation

The IMAGES TAB of the Isolation concern of Green Playbook Page 2 is useful when an annotated photo plus the more extensive instructions in the text box are loaded to provide significant information for shut down of liquid flow and/or compressor gas flow. The point(s) of control is not in the Hot Zone and can be addressed by an adequately trained responder in proper PPE.

Figure 100 - This is the control station pointed to by "A" of the previous Figure. Operating instructions can be added to a text box that is available under the image on the live page.

Managing High Side Energy Page 3

Playbook pg. 3 is the page for **Hide Side** pressure management.

Perform edits and upload Additional resources as previously explained. Pay close attention to the need to address ammonia pump controls and to ensure that auto-defrost systems are properly controlled.

The Additional Resources pane of the Content Tab of Green Playbook Page 3 would be used to place annotated images that provide detailed instruction for high-side pressure control. A pre-filled out ICS 215a form link can be placed in the pane as well.

Page 3 MAP can be an image (Figure 101) that addresses high-side pressure control such as the example below that is the manual over-pressure control station.
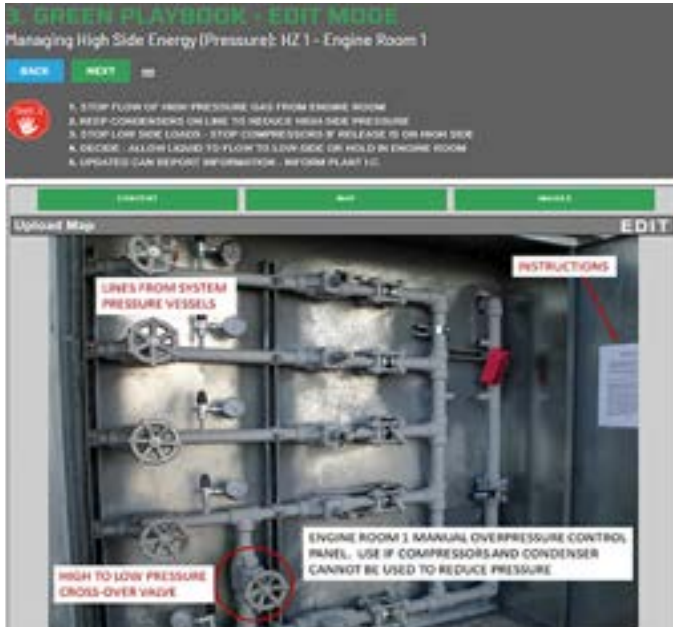
Figure 101- This image is uploaded to the MAP tab on Green Playbook page 3. This is the "B" call out shown in Figure 99. This control box is outside of the HZ 1 engine room.

Managing High Side Energy Page 3 ...continuation

The IMAGES TAB is where detailed task instructions in an annotated figure can be loaded similar to the example below. The figure presents instruction AND a text box presents detailed instruction to supplement the actions to be taken.
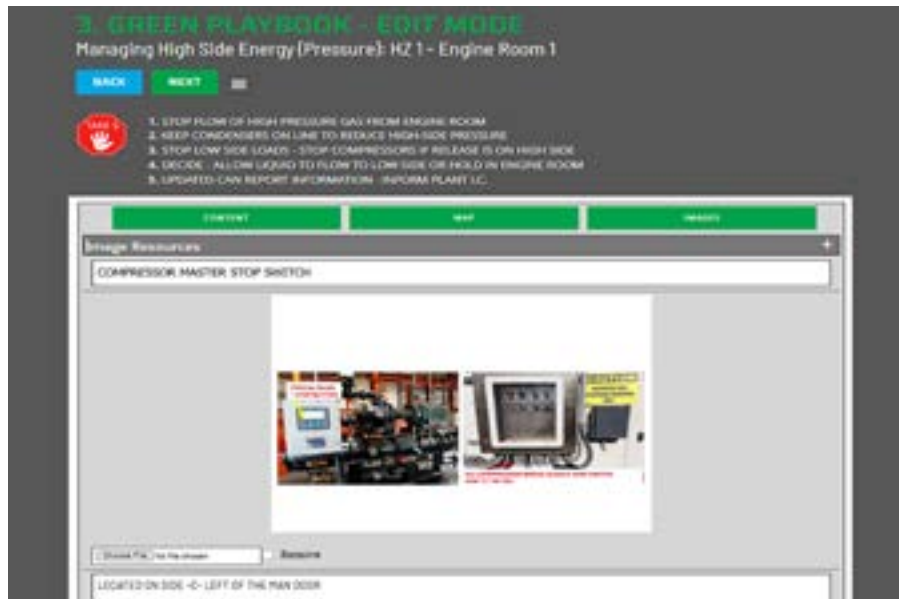
Figure 102 - The instructions for controlling high pressure can be presented in the Images tab for a hazard zone. The key points of the control of high-side energy are presented in the Take Five section and in images pre-loaded to the page.

Managing Low Side Page 4

Figure 103 - . Low-side energy control point accessed from outside of the Hot Zone.

The Additional Resources pane of the Content Tab of Green Playbook Page 4 would be used to place annotated images with detailed instructions to accomplish isolation and control of low-side refrigeration circuits.

Page 4 MAP (Figure 103) function can have an annotated image uploaded that shows the location(s) of low-side piping isolation points that are not in the Hot Zone. An image showing a control point where the refrigeration pumps can be shut off to terminate flow into a cold room where an evaporator is leaking is another way to use the MAP function.

The Green Playbook Pages

Managing Low Side Page 4 ...continuation

Page 4 IMAGES TAB presents where photos with step-by-step instructions can be uploaded for control of low-side refrigeration system flow. A series of images can lead a responder through the steps required to bring control to low-side refrigeration equipment. This activity is outside of the Hot Zone.

Figure 104 - Shutting off the precooling units is an "Operational" activity because access is outside of the Hot Zone when a precooling evaporator is leaking ammonia.

Pressurized Ventilation Page 5

The Additional Resources pane of Page 5 is a place where ventilation operation instructions are up-loaded. An extraction of the facility SOPs can be uploaded here to provide focused instruction to control the ventilation system. The pre-prepared plume model images can be up-loaded to the Additional Resources tab to give responders a visual evaluation of the down-wind affect that a release may cause to a down-wind receptor.

The IMAGES TAB, like other pages, is where instructions for external positive-pressure ventilation by fans provided by the first responders (Figure 105) can be uploaded. These images would explain where the draft from the Tempest® fans can be focused to achieve clearing the space of ammonia vapor. In addition, the image can present information about the exit point of the ventilation system that may have an effect on nearby receptors.

Figure 105 - Green Playbook page 5 Images resource for control of the ventilation system and location of exhaust location of the two ventilators in the hazard zone.

Update of the Life Safety Page 6

Figure 106 - Green Playbook page 6 information in Images tab re-visited at the close of green playbook activity.

The Additional Resources pane of Page 6 addresses Life Safety. This is an update of the Life Safety concerns of Blue Playbook Page 1. The information may be replicated from Blue Playbook Page 1 in this section. The intention of addressing Life Safety again at this time of the response is to evaluate life safety concerns now. The CAN report would be updated at this time to inform the Incident Commander about the current status of life safety concerns on-site.

The IMAGES TAB (Figure 106) presents information related to life safety concerns in the Hot Zone and the isolation area around the Hot Zone. The Evacuation Lead uses this information to direct their decision making regarding the status of personnel at the facility.

Emergency Plan Page 7

Figure 107 - Upload a pre-filled ICS 201 form to assist provision of information to the public Incident Commander. See Figure 108.

The Additional Resources tab is where checklists and prompts that the Evacuation Lead and Facility Incident Commander accesses as the emergency has progressed through Discovery and Initial Response stages of the emergency. The CAN report would be updated at this time. The community first-responders are most likely on site now and are developing their Incident Action Plan. The information from the Facility IC's CAN report and what-ever supplement information from the Blue and Green Playbook pages would be presented to the public IC to help the community command team develop their plan to address the emergency. A prefilled ICS 201 form is very helpful to the public IC.

The Green Playbook Pages

Emergency Plan Page 7 ...continuation

The ICS 201 form for Hazard Zone 1 is a two page document. The snippet in (Figure 108) is used to explain life safety concerns to the public Incident Commander which focuses where a search team may look for un-accounted for personnel. Certain information fields are left empty until a response is taking place.

Figure 108 - A snippet of a pre-filled ICS 201 form. Useful to convey important safety information to the public command team as an incident action plan is being developed.

The Red Playbook (Sustained Release)

Content tab "A" referenced in Figure 109

The Content tab of the Red Playbook functions as the other playbook Content tabs. The Additional Resources that are placed in the Content page are related to the tasks associated with sustained response tasks for the hazard zone.

Map tab "B" referenced in Figure 110

The Map tab of the Red Playbook functions the same as the Map tab of the Blue and Green Playbooks. The map is centered on the hazard zone. The concentric 100, 500, and 1000 foot diameter isolation zone boundaries are presented on the map. Pins associated with the hazard zone and sustained response tasks are presented in addition to the pin of the hazard zone. The affiliated pins have the attributes that were loaded to the pin when created in the Master Map. The pin attributes are available by clicking on the pin.

Images Tab

The loading of images to Red Playbook page 1 is consistent with the procedure used in the Blue Playbook. The images should relate to the purpose of the Red Playbook page as in other playbooks.

Components and Containment and Control Plans tab "C" referenced in Figure 111

The C & C Plans function is a very powerful resource that is used to provide illustrated and annotated specific instruction for command and control, safe isolation of components, and other essential information necessary for safe resolution of a problem in the hazard zone.

Figure 109 - The list of control and isolation procedures pre-configured for the hazard zone

NOTE the white "+" link in the C&C Plans header below the playbook tabs. Clicking this tab brings up a new resource page with three working panes in it (Figure 98). The pane at the left of the page is intended for a selection from a piping and instrumentation diagram (P&ID). The P&ID references the specific valves that would be manipulated to isolate the component (compressor, pump, etc.).

The Red Playbook (Sustained Release)

The right half of the C&C Plans page has two panes presented one over the other. The upper pane is configured to present an annotated photo of the specific component to be addressed during an incident. The lower pane is editable. The sequence of steps and important information about the task of controlling the component are posted here.

The C&C page has five update/modify functions associated with it.
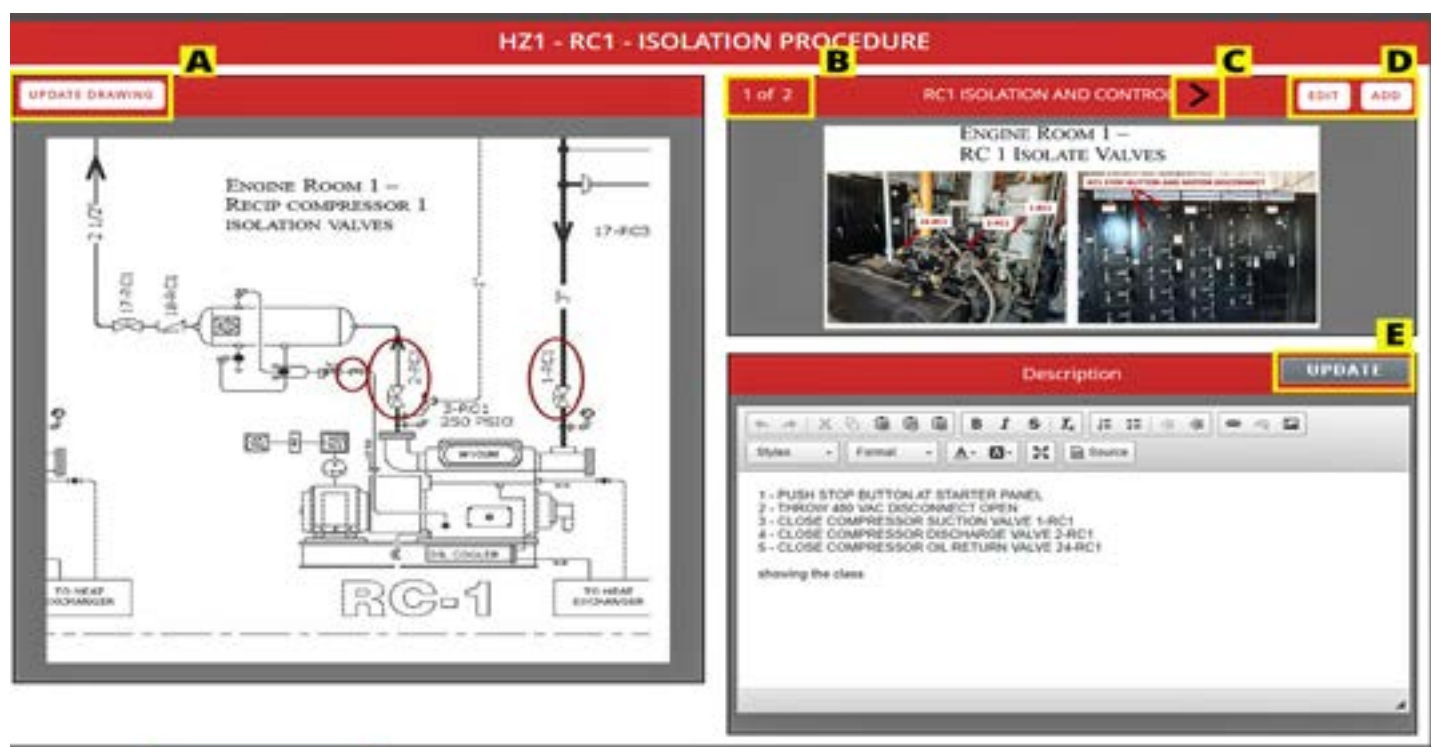
Figure - 110 - C&C page for Hazard Zone 1 - Reciprocating compressor 1 isolation instructions

A: The UPDATE DRAWING link is used to replace the existing resource with an updated one. The process is the same as other playbook update functions.

B: The "1 of 2" notation indicates there are two instruction pages associated with isolation of screw compressor 2.

C: Th ">" symbol is clicked to bring the next page up. A "<" symbol is presented when viewing a page other than page one.

D: The "EDIT" link brings up a utility to update the existing pane of the page. A modified illustration may be uploaded to replace the former one.

The "ADD" link presents a "blank" page that can have content added to the three panes.

E: The "UPDATE" link saves any deletions or changes to the instruction text pane. The pane will expand if the list of instructions reaches the bottom of the pane.

Editing the illustration page of a C&C page

Clicking the "EDIT" link presents a page similar to the following;

Figure 111 - Edit utility to replace the photo resource for the C&C page

Click DELETE. The image and its title is deleted. The P&ID pane and the procedure text box remain. Click ADD. Re-enter the title for the image. Select the desired image to be uploaded. Click SUBMIT. The updated image will be inserted on the page. The order of instruction pages will remain the same if the title is typed exactly the same. The title can be highlighted and copied to the clipboard to insert into the title field. The order of presentation is sorted alpha-numerically as in the IMAGES tab. New images can be added to the C&C page and sorted into the desired order by the alpha-numerical naming function.

Refer to Figure 110. Notice the "wasted space" above and below the images. The developer will separate the composite image can be separated into two separate images. The image will fill the pane – making it easier to view and understand. The "one step" will be two steps as a result. (Figure 101 and Figure 111).

The Red Playbook (Sustained Release)

Figure 112 - Original steps 1 and 2 photos on single page

Updated presentation. Now a three-step instruction set as follows.

Figure 113 - Step 1 - modified presentation Step 1 of 3, shut off compressor at the control panel

Figure - 114 - Step 2 of 3, electrical isolation of screw compressor 2

The Red Playbook (Isolation)

Description   **UPDATE**

1 - PRESS COMPRESSOR STOP BUTTON AT COMPRESSOR CONTROL PANEL
2 - LOCATE 480 VAC DISCONNECT AT DISTRIBUTION BOARD - SEE IMAGE #2 BY SCROLLING OVER, SEE ABOVE. THROW THE DISCONNECT OPEN TO REMOVE POWER TO MOTOR STARTER 9IMAGE TO BE ADDED 2/23/21)
3 - CLOSE COMPRESSOR SUCTION VALVE 1-SC2. AN 8' STEP LADDER WILL BE HELPFUL TO REACH VALVE. A 12" CRESCENT WRENCH ALSO NEEDED TO TURN VALVE STEM USING WRENCH FLATS ON STEM
4 - CLOSE COMPRESSOR DISCHARGE VALVE 2-SC2. A 12" CRESCENT WRENT ALSO NEEDED TO TURN VALVE STEM USING WRENCH FLATS ON STEM
5 - CLOSE COMPRESSOR OIL COOLING LIQUID SUPPLY VALVE 7-SC2
6 - CLOSE SOC COOLING REGULATOR VENT LINE ISOLATION VALVE 28-SC2

Figure 115 - Steps 3 - 6 Closing the isolation valves to isolate the compressor from the active system.

The Orange Playbook (Termination Stage)

The Emergency Event Termination Order is signed by the Public Safety I.C. when the end of the emergency response stage is over. The termination Order does not mean that the risks of a sudden release event is negated.

The I.C. will request a hazard assessment to insure that the a safety plan is part of the Recovery and Restart Plan. Hazardous waste threats are not always evident while addressing the (clean-up, salvage, and overhaul operations). The I.C. will transfer command to the facility senior supervisor. They will review the plan for scene security, cause and origin investigation, and recovery/restart operations. as described within Emergency Event Termination Order.

Figure 116 Index page of the Termination Orange playbook

The I.C. and the Safety Officer will issue the Emergency Event Termination Order to the facility senior supervisor before leaving the scene. scene. The I.C. may agree to assign a public safety official to support investigation and high-risk cleanup, system restart and any other operations requiring recovery work within the hot zone damage area.

The Senior Supervisor in charge of recovery and restart should review the emergency event history located in the "View Response" mode. The Hazard Zone where the incident occurred will have critical safety information for each stage of the emergency event: Discovery stage (Blue Playbook), Initial Response (Green Playbook), and Sustained Response (Red Playbook) The method of accessing the "View Response Mode is explained on page 64.

Index Page | Termination Stage

Figure 118 - Index page of the Terminate stage playbook

By the time the response incident reaches this stage there will be a great desire to re-start the facility. The second "E" of RECOVER is the step where a systematic checklist approach for re-start and balancing the system is needed. Do not "rush to running". This is the time that a missed step can lead to a second release situation.

Lastly, "It ain't over until it is over" - An ESSENTIAL TASK to accomplish is to FORMALLY end the emergency by way of a proclamation. Facilities have been fined for failure to formally note the end of the emergency. See Figure 118 the Termination Proclamation.,

Termination Proclamation and Post-emergency Response

The following information summarizes the Post-Emergency Response Operations expected hazmat operations. https://www.chemicalspill.org/ChemicalsWorkPlace/response.html

- Upon completion of the emergency response, if it is determined that it is necessary to remove hazardous substances, health hazards, and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the site of the incident, the employer conducting the cleanup shall comply with one of the following:

  ☐ Meet all of the requirements utilized for emergency response; or where the cleanup is done on plant property using plant or workplace employees, such employees shall have completed the training requirements of the following: 29 CFR 1910.38(a); 1910-134; 1910.1200, and other appropriate safety and health training made necessary by the tasks that they are expected to be performed such as personal protective equipment and decontamination procedures. All equipment to be used in the performance of the cleanup work shall be in serviceable condition and shall have been inspected prior to use.

LINK http://www.osha-slc.gov/OshStd_toc/OSHA_Std_toc_1910.html

ORANGE PB

The View Response Mode - See the ASTI Response Mode Playbook Guide for details.

The green tab "View Response" mode is used for emergency events and for Tabletop Training exercises (TTX). The facility and public safety command teams work together with an Ammonia Response Concept of Operations (CONOPS) supported by the local Authority Having Jurisdiction (AHJ or LEPC).

Figure 116 Index page of the Termination Orange playbook

The CONOPs template is in the footer of the playbooks. The **Discovery** (Blue PB) and **Initial Response** (Green PB) stages improve readiness for immediate life safety, emergency system control, and ability to conduct critical tasks such as mitigating an ammonia release to support the survival of a victim to be rescued by facility and/or public safety responders that are trained and...

...equipped with personal protective equipment (PPE)to enter an IDLH hazard zone to perform the rescue.

The transition to **Sustained response** (Red PB) effectively transitions between the operational response to the technician responders that can enter the 'hot zone' to contain and control the emergency event. The first responder command team will provide a safety and hazard assessment, Conditions-Actions-Needs (CAN) size-up, and a situation status report supported by Red PB containment and control pictorial instruction.

The "View RESPONSE" mode records the high-point details of the training or live event experience. This is helpful for those who are assessing the hazards associated with recovery and restart operations. The training and live-ammonia event history provide the facility emergency managers a good record of activities accomplished for each year.

Three Steps To Engage the View Response One Plan Mode Pictured at the Top of this Page.

Step 1. Click on the green "view Response tab circled on the One Plan picture.

Step 2. Click on the blue box Emergency Event Hazard Zone

The blue boxes link to the the training and emergency response history within the Hazard Zone. This is used for safety and hazard assessement required for recovery and restart actions including debriefing to find better preventative and response measures.

Step 3. Click on the blue box to view the response information stored in the Playbook system.

The color coded playbook information that was accessed during the emergency event is displayed when the playbook icon is clicked. The details associated with using the View Response mode are provided in a View Response and Ammonia Response CONOPS agreed on with the ?

Incident Termination Proclamation

Incident Name:

Located at:

1. On _____(Date)_____ at _____(time)_____ (AM/PM), I assumed command of the incident known as _____(name of command)_____ located at _____(address)_____.

2. On _____(Date)_____ at _____(time)_____ (AM/PM), I:
   - ☐ Ordered evacuation to safe refuge of all civilians from the Isolation Zone.
   - ☐ Assumed command of the emergency event.
   - ☐ Other _____

3. I have determined that the emergency event no longer exists.

4. I thereby terminate the emergency and will transfer control of this facility to
   Name: _____ Position: _____

5. This Proclamation is effective immediately.

6. Command is terminated on this the _____ day of _____, 20_____, at _____ (AM/PM).

Special Condition Requirements

1. _____
2. _____
3. _____

Incident Commander (Name): _____

Incident Commander (Rank): _____

Figure 119 - Demonstration of uploading a link to a URL of a video file. The facility will need a You-Tube type site to point the One Plan app to

Post-Emergency Event Operations

Salvage, overhaul, clean-up and restart operations that have hazardous waste and damaged system risks and threats

https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.120

Occupational Safety and Health Administration

- By Standard Number -1910.120 - Hazardous waste operations and emergency response.

The hazardous waste regulations 1910.120(a) through (p) can serve as guidance for creation of a hazard assessment and a health and safety plan related to the recovery (salvage, overhaul, and cleanup plan) and restart plans. local or state determination of the need for the health and safety requirements relating to the post event recovery operations.

The data that is linked to the following Table of Contents is located in the footer of the One Plan Playbooks web-application. It can be used by the facility emergency manager (employer's representative) and the local public safety authority having jurisdiction as a template for designing a Safety and Recovery and Restart Plan for incidents that have a large amount of chemical waste and systems damage that still have ammonia, chlorine, waste oil or other chemical challenges to deal with.

Table of Contents: See the One Plan Playbook Footer for Details

1.1. ASTI Mission: Eliminate ammonia related accidents and injuries by **promoting Prevention, Protection, Preparedness, and the One Plan.**

1.1.2 Vision: Recognized world-wide as the preeminent training organization and major contributor leading to **making ammonia the most safely managed hazmat in the world.**

1.1.3 Tripod Collaboration with industry, government, and public safety (Tripod) to make ammonia the **safest managed chemical in the world.**

1.1.4 Motto: Emergencies - **Prevent emergency events or stop them small.**

1.1.5 Goal: Utilize the ASTI One Plan **concept of operations** to manage hazards, **mitigate risks, and prepare for threats of chemical exposure with the best possible outcomes.**

The One Plan Playbooks provide the Tripod Responders (industry, government, and public Safety) with a Concept of Operations (CONOPS) that meets the federal and state response framework AND allows the local authorities having jurisdiction (LEPC) to set the level of response readiness expected from local industry, government, and public safety.

Find out how ASTI can help you and your community connect to the power of the Tripod. Contact to the Ammonia Safety & Training Institute at PO Box 1578, Watsonville CA 95077 www.ammonia-safety.com or phone: 831-453-7102.

AMMONIA SAFETY & TRAINING INSTITUTE
PO Box 1578, Watsonville CA 95077
https://one-plan.org/