

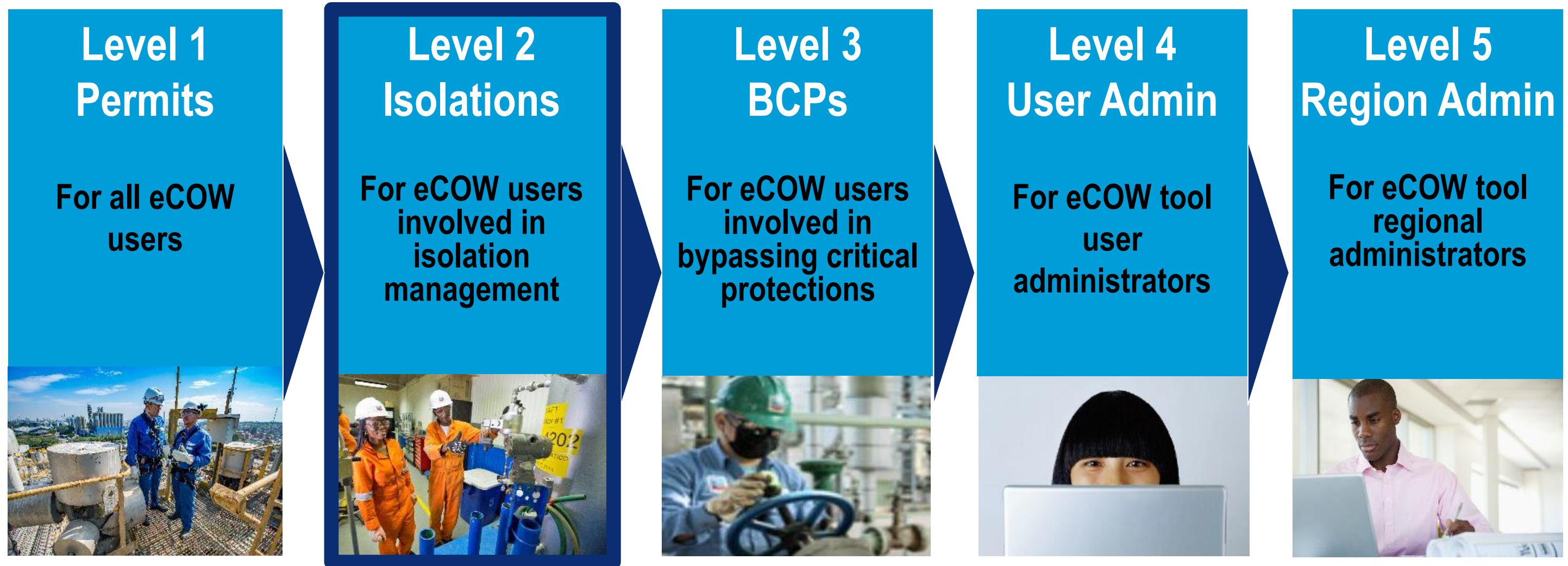


eCOW level 2 isolation training

Sep 2025



Welcome to eCOW level 2 isolations training



Prior to this course, you should have taken **Level 1 Permit** training.

Housekeeping

Most of you were likely in the earlier Level 1 class.

Quick review of:

- Facility information
- Emergency exits/evacuation procedures
- Introduction of new participants
- Sign-in sheet



Ground rules

- Be on time and stay for the full training
- Don't be distracted by other things on your computer or phone
- Stay on track with the exercises and avoid working ahead
- Ask questions and seek clarification where needed
- Be open to the move to electronic permitting

Ground Rules

If connected virtually:

- Keep phone on mute unless asking question
- Ask questions by raising hand or adding to chat
- If possible, show your video when speaking



Level 2 course objectives

- ☐ Understand how eCOW supports isolation management
- ☐ Gain awareness on isolation workflows and roles
- ☐ Become familiar with isolation types and icons
- ☐ Learn isolation workflow from creation through close
- ☐ Learn how to Amend, Partial Permanent De-Isolation (PPD), copy and search for ICCs
- ☐ Understand de-isolation for test and long-term isolation requirements
- ☐ Understand how to create and use isolation templates

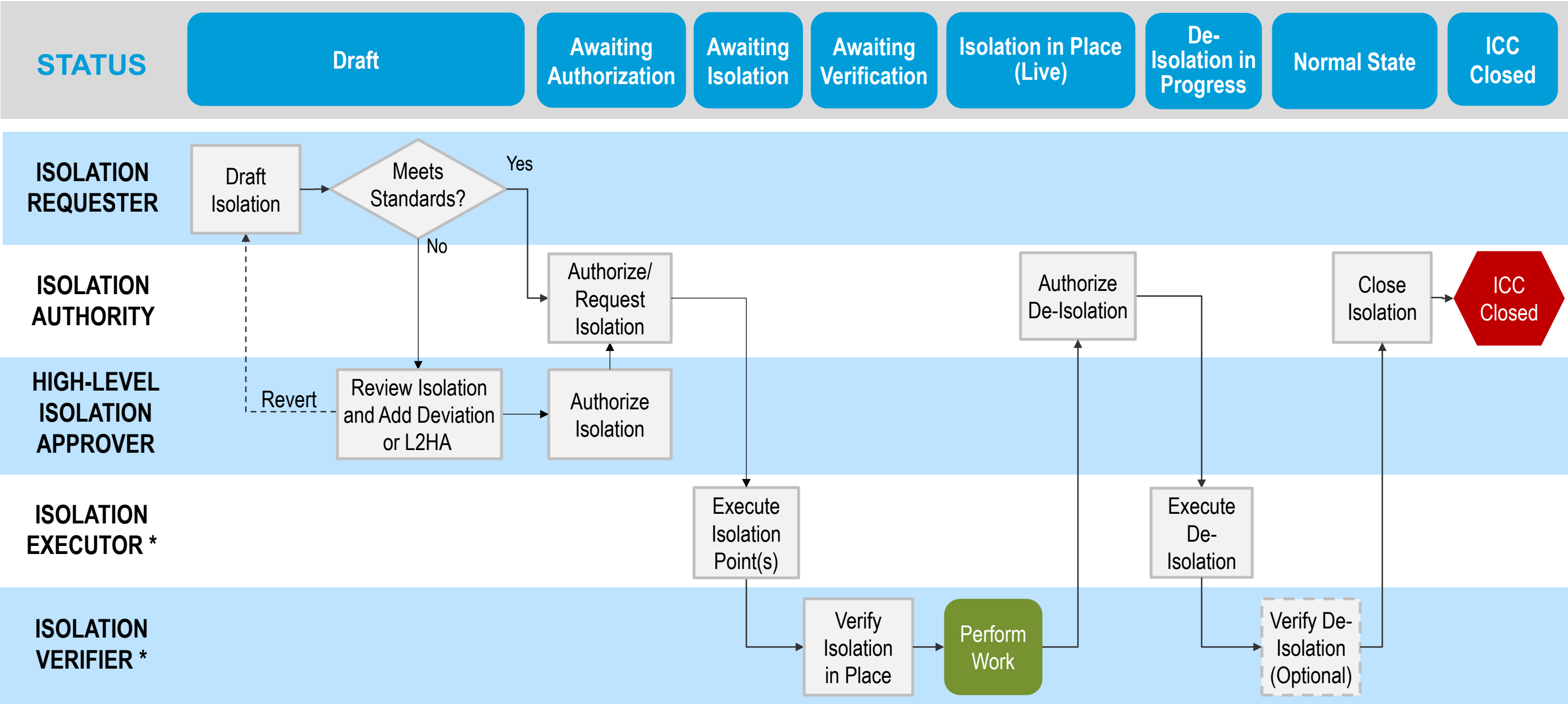


eCOW tool

Isolation workflow, roles and icons



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Isolation roles

- The following are the system roles that support execution of the isolation workflow
- An individual's role will dictate the actions they can take on an isolation

**Isolation
Requester**



**Isolation
Authority**



**High Level
Isolation Approver**



**Isolation
Executor**



**Isolation
Verifier**



We'll learn more about each role's responsibilities as we walk through the isolation workflow

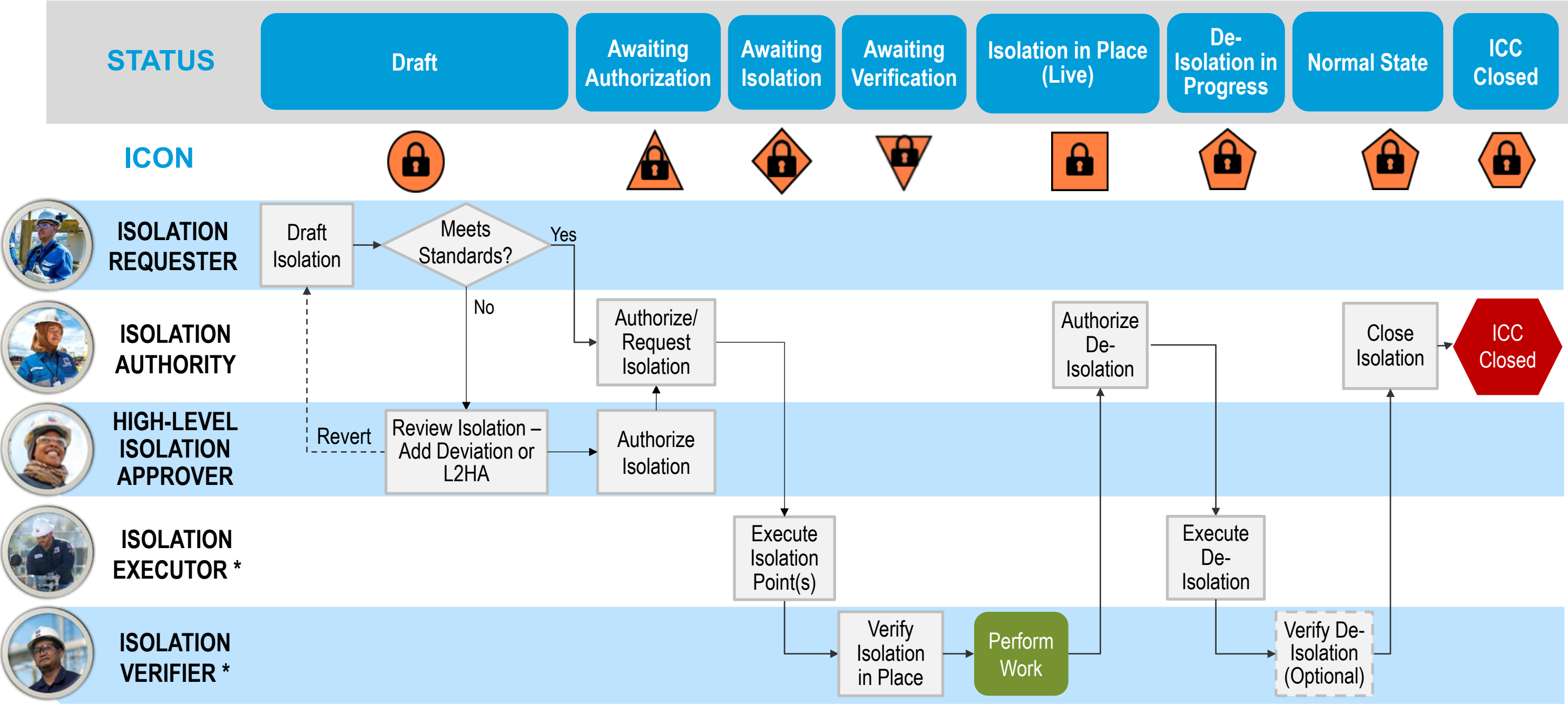
Isolation status and icons

- Icon shape changes as ICC moves through workflow
- Helps users visualize the progress of work
- Displayed on site graphics and the electronic and printed copies of the ICC

WORKFLOW STATUS	ICON	WORKFLOW STATUS	ICON
Draft / Draft for Shutdown		Live (LTI)	
Awaiting Authorization		PBU Amendment	
Awaiting Isolation		Partial Permanent De-isolation (PPD) in Progress	
Awaiting Isolation for Amendment		De-isolation in Progress	
Awaiting Verification		Normal	
Isolation in Place (Live)		Closed	
Live (DFT)			



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Knowledge check

**What are the statuses
that an isolation
goes through in a
typical workflow?**

**What are the 5
system roles
associated with the
isolation workflow?**

**True or False?
The color of an
isolation icon changes
as it progresses
through the workflow.**

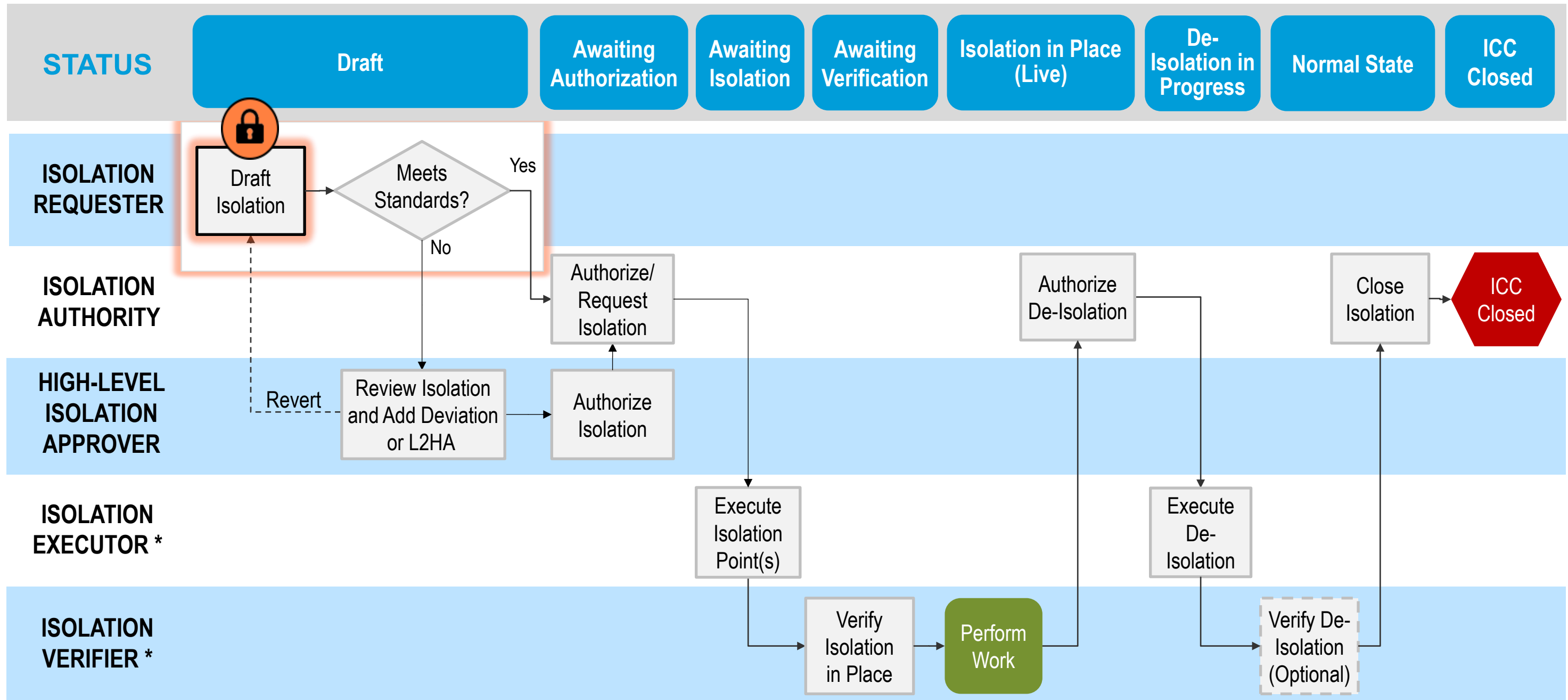


eCOW Tool

Drafting an isolation



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



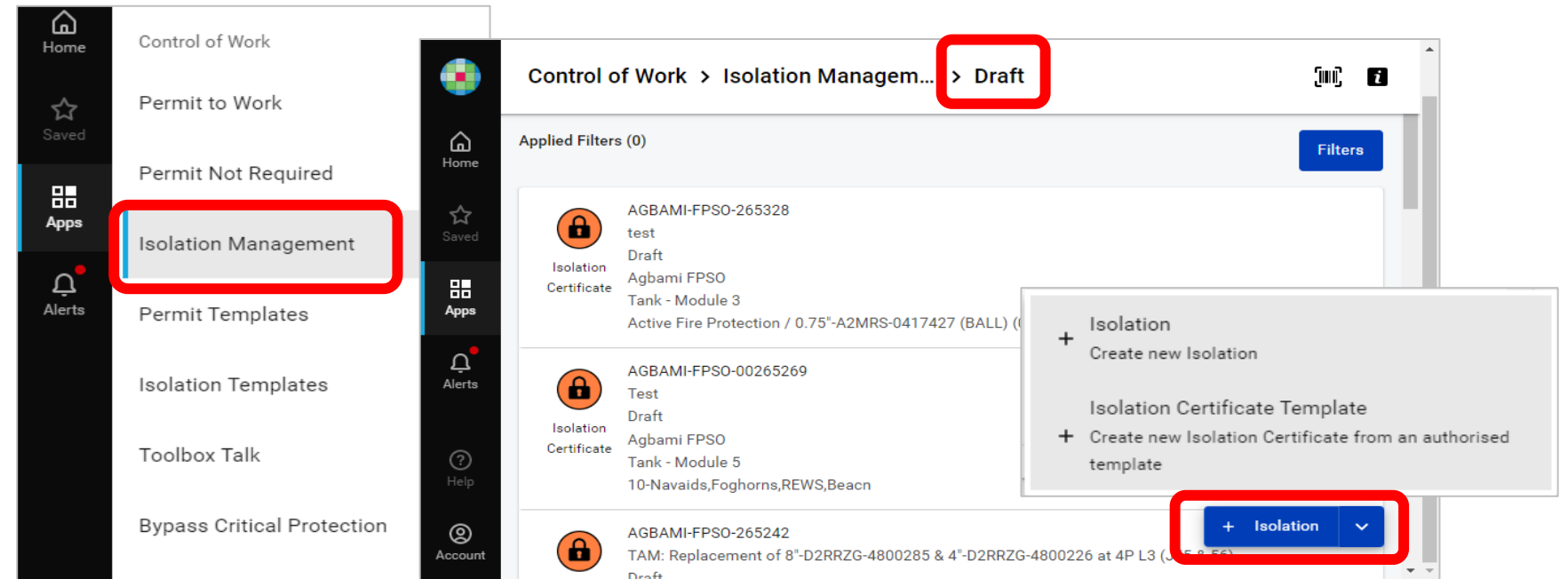
Isolation requirements

- When creating a permit, you designate whether there is an isolation requirement
- An isolation enables safe execution of a task
- If isolation is required, an Isolation Confirmation Certificate (ICC) must be attached to the permit
- ICC is valid for as long as necessary (no lifetime)

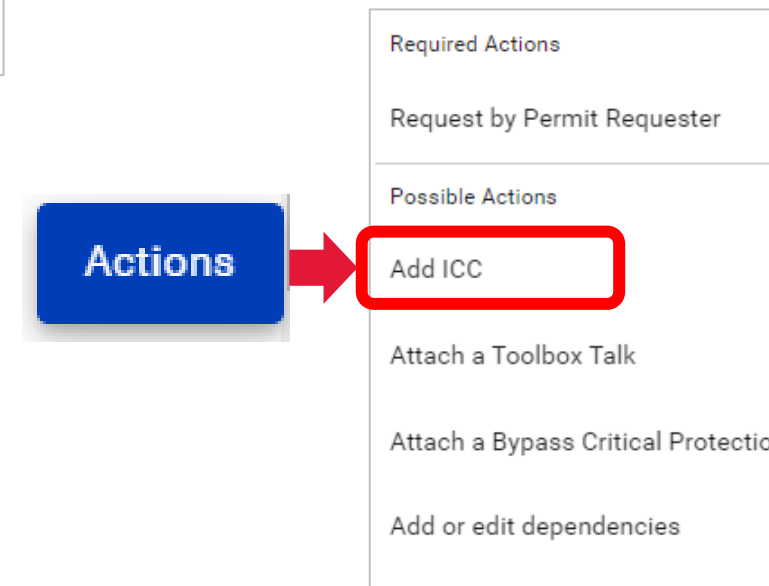


Drafting an Isolation (ICC)

- An Isolation Confirmation Certificate (ICC) can be created:
 - As a standalone certificate within the **Isolation Management** module via **Draft list, + Isolation button**
 - From approved isolation templates
 - By copying an existing ICC



- From within a permit via the '**Action**' button if there is an isolation requirement noted

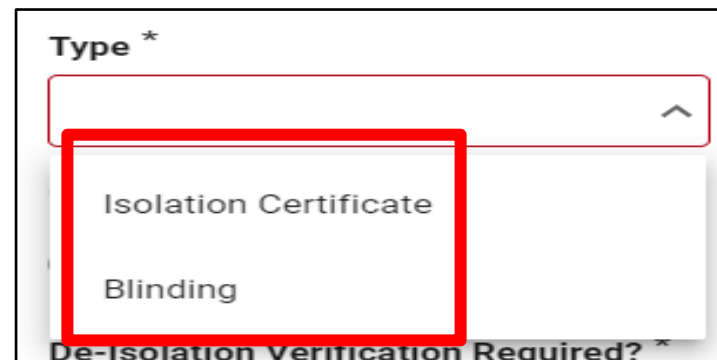


Isolation Certificate Types

The ICC module has 2 types of Isolation certificates that a user must select from when creating an ICC

- **Isolation Certificate** or
- **Blinding**

The type of Isolation will drive specific business rules for each:



The screenshot shows a web form for creating an Isolation Certificate. At the top, there is a label 'Type *' followed by a dropdown menu. The dropdown menu is open, showing two options: 'Isolation Certificate' and 'Blinding'. The 'Isolation Certificate' option is highlighted with a red rectangular box. Below the dropdown menu, there is a label 'De-Isolation Verification Required? *'.

Note: The individual Isolation point type will determine the ICC tag format to be applied.

- Process/Mechanical, Electrical, Exposed High Voltage Electrical point type applies the regular tag
- Blind point type applies the multi-part blind tag

• Business Rules

Isolation Certificate

1. Optional “De-Isolation Verification Required” signature, defaults to “No”
2. Will apply legacy ICC icon

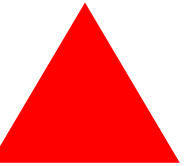


Blinding

1. Required “De-Isolation Verification Required” signature
2. If ICC associated with a CSE permit, will require an HLIA to sign off after the ICC has been “Verified” to move to “Live” state
3. Will apply the ICC icon with “BLIND” at the bottom



Isolation Requester Role



The Isolation Requester (IR) role is broken out into the 5 isolation types:

- Process / Mechanical Requester
- Electrical Isolation Requester
- High Voltage Isolation Requester
- Instrument and Controls Isolation Requester
- Blind Isolation Requester

A user must have the applicable role to answer the question of:

“Does isolation scheme meet the standard?”

There is no mutual exclusivity, so a user may have all 5 roles if the BU determines they are trained and qualified to perform these roles.

A user only needs 1 of the Isolation Authority roles to be able to create and request actions.

If a user does not have a isolation requester role for all of the isolation point types in the plan, they will only be able to answer the question of:

“Does isolation scheme meet the standard?”

All isolation requester for each type of point must answer the scheme questions before the system will allow any requester to sign and submit for their isolation types.

4

Request, Authorize and Confirm Isolation Scheme

Does isolation scheme meet the standard? *

Blind?

☒ Yes ☐ No

High Voltage Electrical?

☒ Yes ☐ No

Instrumentation and Controls?

☒ Yes ☐ No

Process/Mechanical?

☒ Yes ☐ No

Electrical?

☒ Yes ☐ No



Isolation points in isolation/de-isolation plan



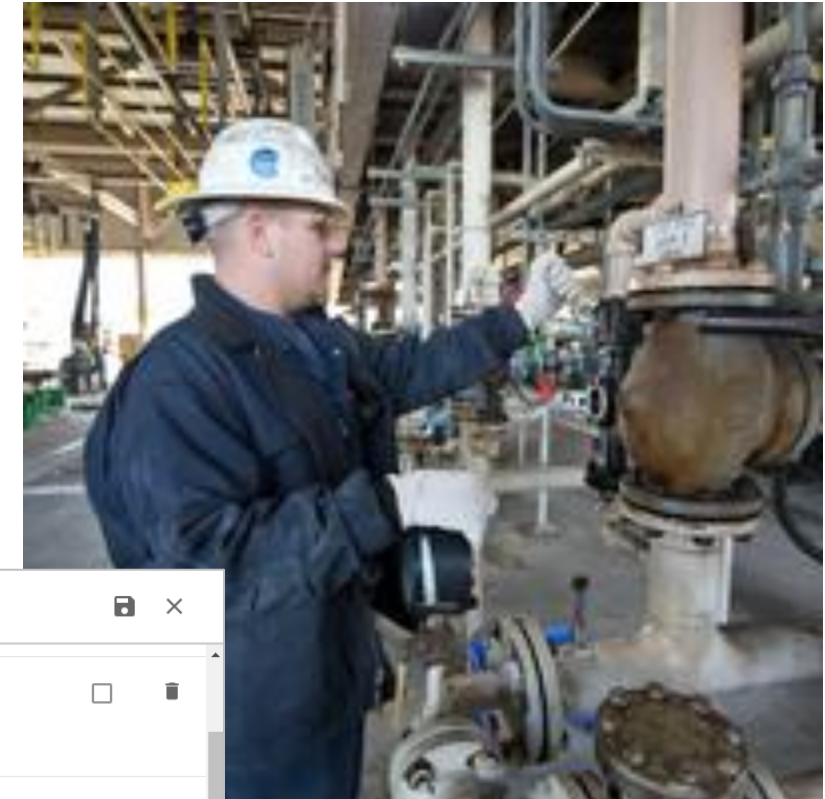
Design Isolation Plan - Isolation EGTJ-265180										
No.	Iso no.	Isolation Point	Type	Method	Normal State	Isolated state	Comment	Pressure Buildup	Lock No	DFT
= 1	1	Suction valve	Process/Mechanical	Valve (O/C)	Open	Closed				
= 2	2	Discharge valve	Process/Mechanical	Valve (O/C)	Open	Closed				
= 5	5	Pump breaker	Electrical	Cable Connections (C/D)	Connected	Disconnected				
= 6	6	Pump selector switch	Electrical	Isolator (On/Off)	On	Off				
Add Isolation Point										

- All isolation points must be listed in the isolation and de-isolation plan
- Types of isolation:
 - Process/Mechanical
 - Electrical
 - Instrumentation and Controls
 - Exposed High Voltage Electrical
 - Blind
- Isolation points will be pulled from the equipment list or can be added as free text if not in the equipment list
- Different ‘Methods’ are available based on the isolation ‘Type’ selected
- Current state of isolation point will be highlighted in orange



Actions in isolation/de-isolation plans

- Actions are additional instructions that can be listed to support the safe execution of the isolation plan
- Inclusion of actions enables creation of an isolation procedure rather than just a list of isolation points
- Entered via a free text box
- Can be assigned at the appropriate sequence in the workflow to support isolation plan/procedure development



Design Isolation Plan - Isolation **ESTL-265180**

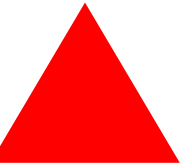
=	1	!	1	Suction valve	Process/Mechanical	Valve (O/C)	Open	Closed		☐	☐
=	2	!	2	Discharge valve	Process/Mechanical	Valve (O/C)	Open	Closed		☐	☐
=	5		5	Pump breaker	Electrical	Cable Connections (C/D)	Connected	Disconnected		☐	☐
=	6		6	Pump selector switch	Electrical	Isolator (On/Off)	On	Off		☐	☐
=	7	act		No equipment selected	Check pressure					☐	☐

Add Isolation Point

Add Isolation Point

Add Action





Drafting an Isolation

video demo



Getting started with hands on tool practice



PERMIT VISION LOG IN

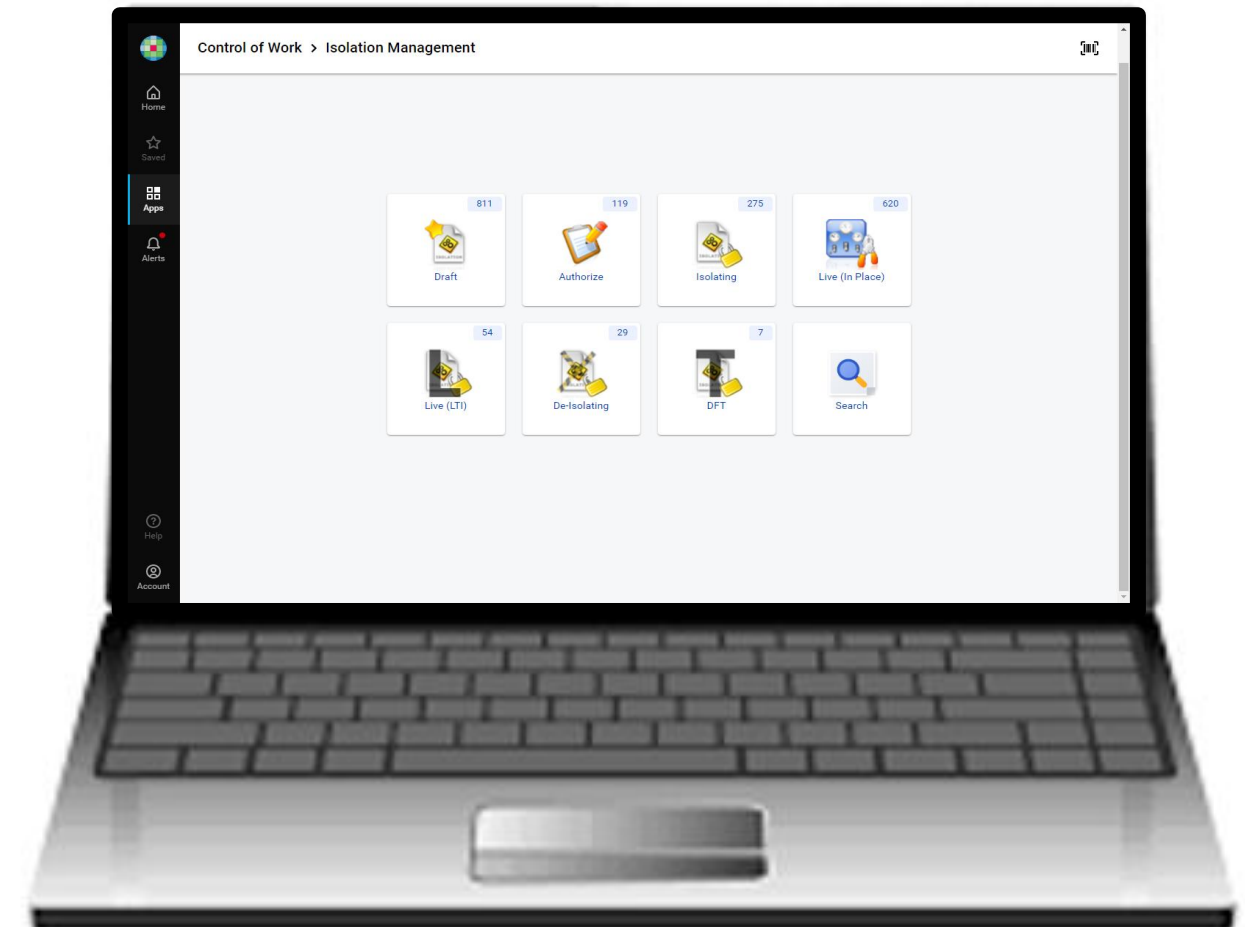
<https://chevron.training.us.enablon.io/permitvision>

**Refer to the email you received
for login instructions.**

Exercise 1: Drafting an isolation (Breakout group)

Create an Isolation (ICC)

- Create an isolation
- Complete all mandatory fields (*)
- Save the isolation and write down your ICC number
- Design isolation/de-isolation instruction plans with three isolation points, using at least two different types and one action
- 'Save' your ICC



Questions or comments on the exercise



Knowledge check

What 'tool role' drafts an ICC?

What are the 5 types of isolation?

What information is included for each isolation point in the isolation plan?

True or False?
When an isolation plan is created in eCOW, the tool also creates a de-isolation plan

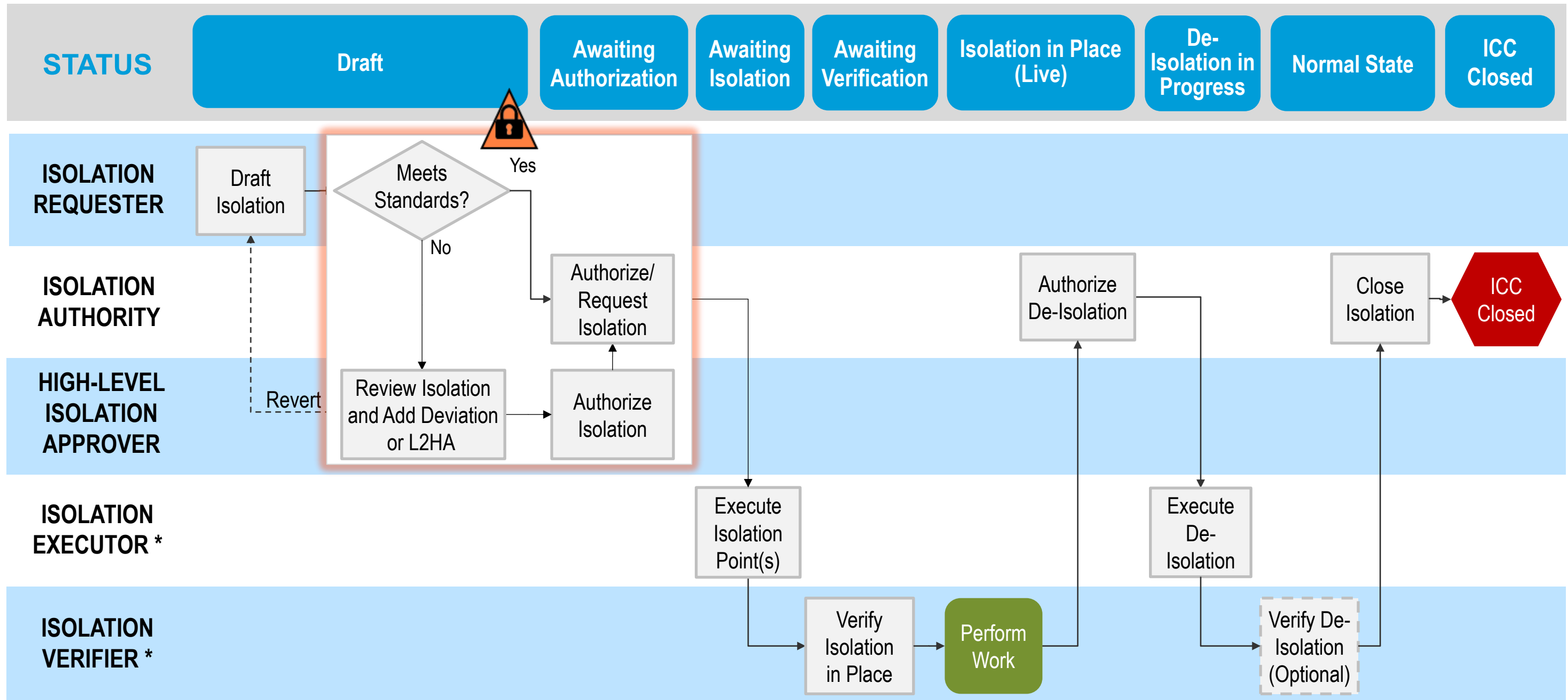


eCOW Tool

Authorizing an isolation



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Isolation Authority Role



The Isolation Authority (IA) role is broken out into the 5 isolation types:

- Process / Mechanical Isolation Authority
- Electrical Isolation Authority
- High Voltage Isolation Authority
- Instrument and Controls Isolation Authority
- Blind Isolation Authority

A user must have this role(s) to be able to authorize each type of isolation points.

There is no mutual exclusivity, so a user may have all 5 roles if the BU determines they are trained and qualified to perform these roles.

A user only needs 1 of the Isolation Authority roles to be able to authorize an action.

4 Request, Authorize and Confirm Isolation Scheme

Does isolation scheme meet the standard? *

Blind? ☒ Yes ☐ No

High Voltage Electrical? ☒ Yes ☐ No

Instrumentation and Controls? ☒ Yes ☐ No

Process/Mechanical? ☒ Yes ☐ No

Electrical? ☒ Yes ☐ No

Lockout Box

12345

Required signatures

Request Process/Mechanical Isolation [Sign as logged in](#)

Request Electrical Isolation [Sign as logged in](#)

Request High Voltage Electrical Isolation [Sign as logged in](#)

Request Instrumentation and Controls Isolation [Sign as logged in](#)

Request Blind Isolation [Sign as logged in](#)

Authorizing an isolation

After an isolation is drafted it must be authorized before isolation can begin.



If Isolation Meets Standards...	Isolation Does Not Meet Standards...
Isolation Authority may authorize the isolation.	High-Level Isolation Approver first authorizes after adding either: • Deviation • L2HA Then, Isolation Authority authorizes before execution.

Does isolation scheme meet the standard? *

Process/Mechanical? ☐ Yes ☒ No

Electrical? ☒ Yes ☐ No

Actions

Required Actions

Request Isolation

Possible Actions

Countersignature

Add L2 HA

Add Deviation or File Attachment





Authorizing an Isolation

video demo



Authorizing an Isolation

(Does Not Meet IHE standard – L2 HA attached)

video demo



Authorizing an Isolation

(Does Not Meet IHE standard – Deviation attached)

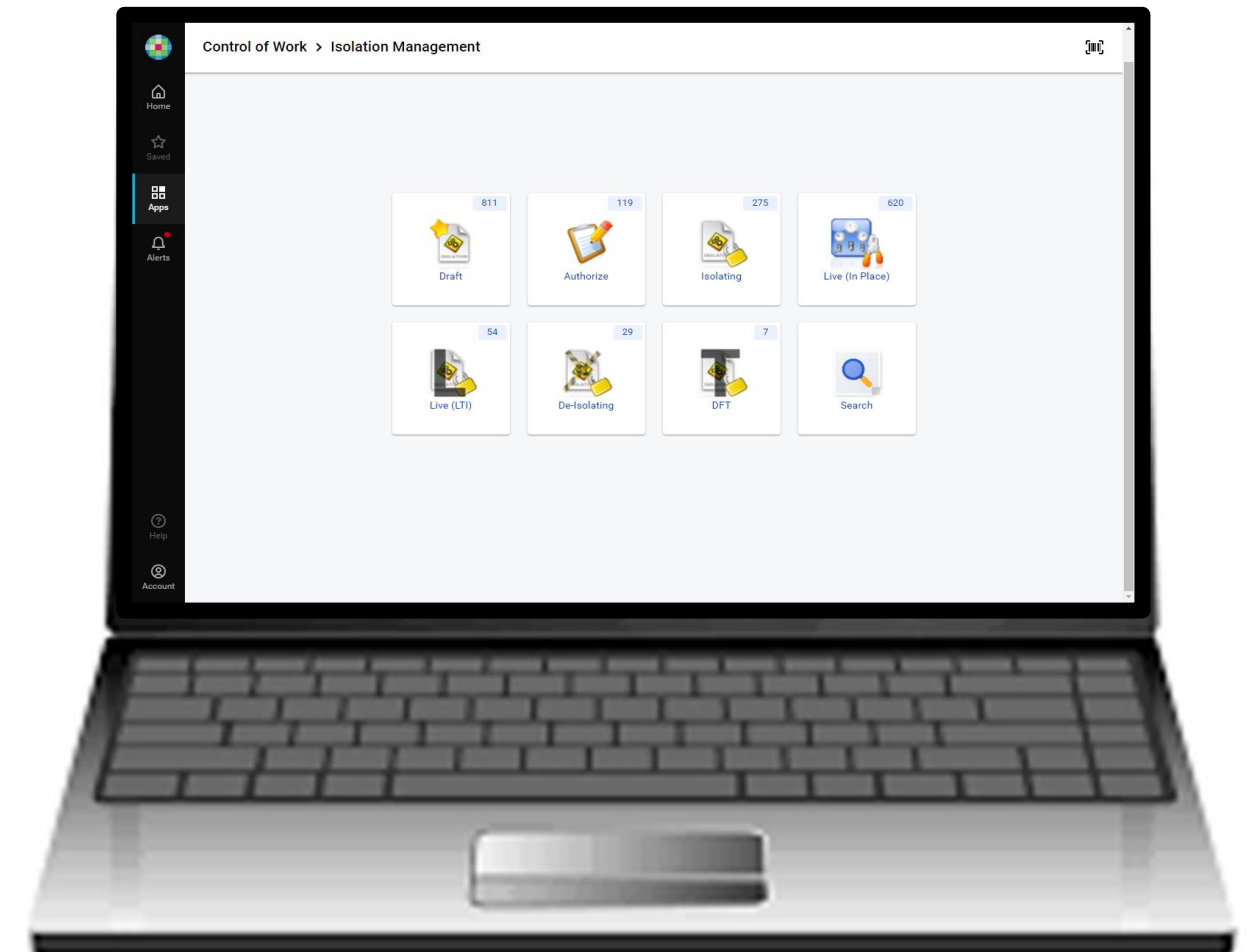
video demo



Exercise 2: Authorizing an isolation

Isolation Authority

- **Authorize the isolation created in previous exercise**
 - Review the isolation
 - Confirm that the isolation meets standards
 - Authorize the isolation



Questions or comments on the exercise



Knowledge check

If an isolation meets standards who typically authorizes the isolation?

If an isolation does not meet standards, who must authorize the isolation?

What action must be taken when an isolation does not meet standards?

Describe the symbol used to indicate an isolation that is awaiting authorization.

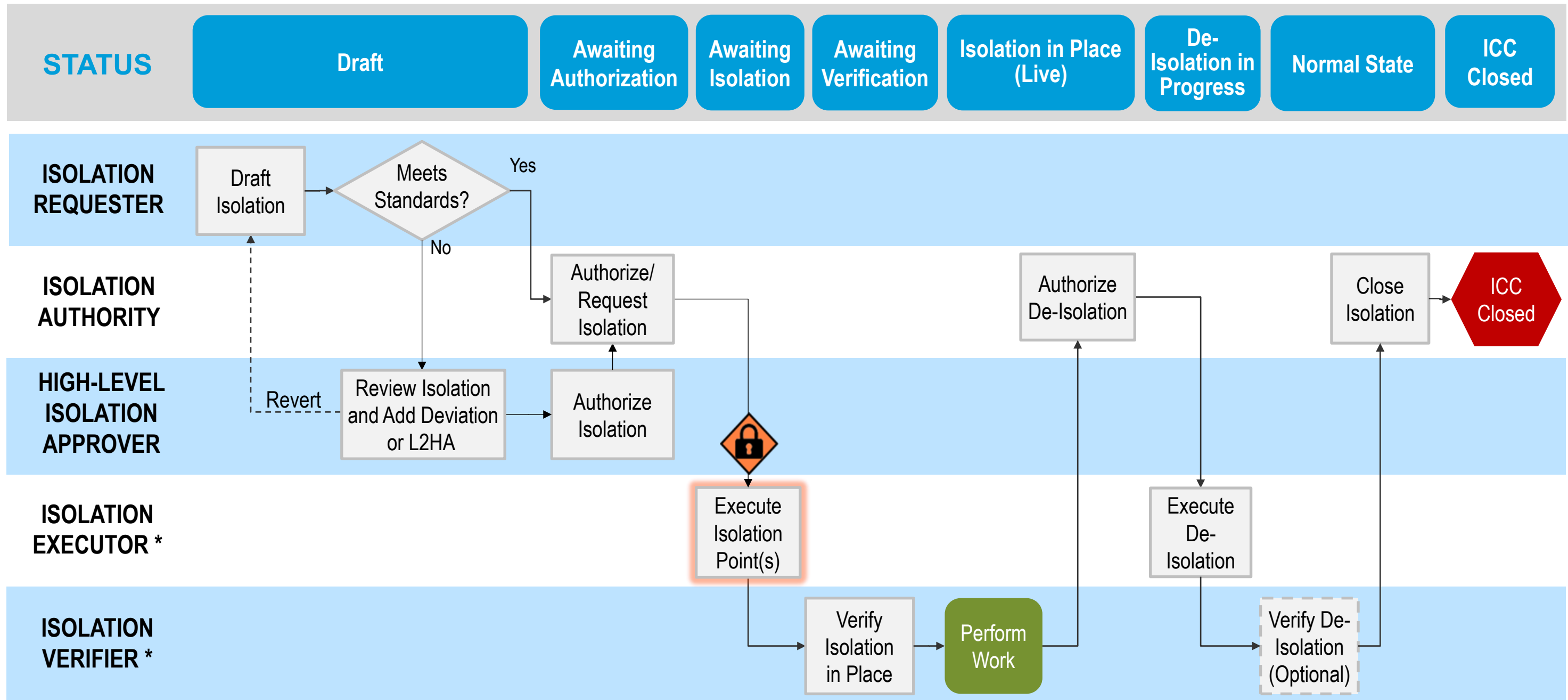


eCOW Tool

Executing an isolation



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Executing isolations



Isolation Executor must check each action item and/or isolation point to indicate it is being executed.

Execute Isolation by Isolation Executor

☐	No.	Iso no.	Isolation Point	Type	Method	Isolated state	Normal State	Lock No	DFT	UTI
☐	1	1	171-TK-010 Nitrogen inlet	Process/Mechanical	Valve (O/C)	Closed	Open		☐	☐
☐	2	2	171-TK-010 Nitrogen bypass PCV-0040	Process/Mechanical	Valve (C/C)	Closed	Closed		☐	☐
☐	3	3	171-PSV-0030 inlet Flange	Process/Mechanical	Valve (O/C)	Closed	Open		☐	☐

User ID *

Password *

“Lock Number” field is available for entry starting with the isolation draft and must be entered for isolation execution.

Unable to isolate (UTI)

Execute Isolation by Isolation Executor

☐ Start scan

☐	No.	Iso no.	Isolation Point	Type	Method	Isolated state	Normal State	Lock No	DFT	UTI
☐	1	1	171-TK-010 Nitrogen inlet	Process/Mechanical	Valve (O/C)	Closed	Open		☐	☐
☐	2	2	171-TK-010 Nitrogen bypass PCV-0040	Process/Mechanical	Valve (C/C)	Closed	Closed		☐	☐
☐	3	3	171-PSV-0030 inlet Flange	Process/Mechanical	Valve (O/C)	Closed	Open		☐	☐

- If an isolation cannot be applied as per the approved plan, the isolation should be marked as “Unable to Isolate” (UTI)
- This option is only available in the “Execute” state
- Check the 'UTI' box in the 'Execute Isolation' pop up
- System will automatically revert ICC back to “Draft” to enable redesign of the plan (add new isolation points)
- If isolation initiated from a template, isolation moves to “Draft for Amendment”

Printing isolation tags

- Permit Vision will generate isolation tags, including multi- blind isolation tags
- Tags can be printed and taken to field to apply isolations
- After isolations are applied, Isolation Executor signs to confirm the isolations are in place



ISOLATION TAG	
ICC Number:	CPP-147859
Title:	Recieving Breton Sound Pig
Type:	Process/Mechanical
Equipment:	PEPG- LAL0271A-TRAP-R5 (PEPG- LAL0271A-TRAP-R5)
Isolation Point:	Valve:Kicker:M6125:MO (M6125_1030444)
Method:	Valve (C/C)
Normal State:	Closed
Isolated State:	Closed
Comments:	
Installed by:	
Date:	
ICC Number: CPP-147859	
	Isolation Point: Valve:Kicker:M6125:MO (M6125_1030444)





Executing an Isolation

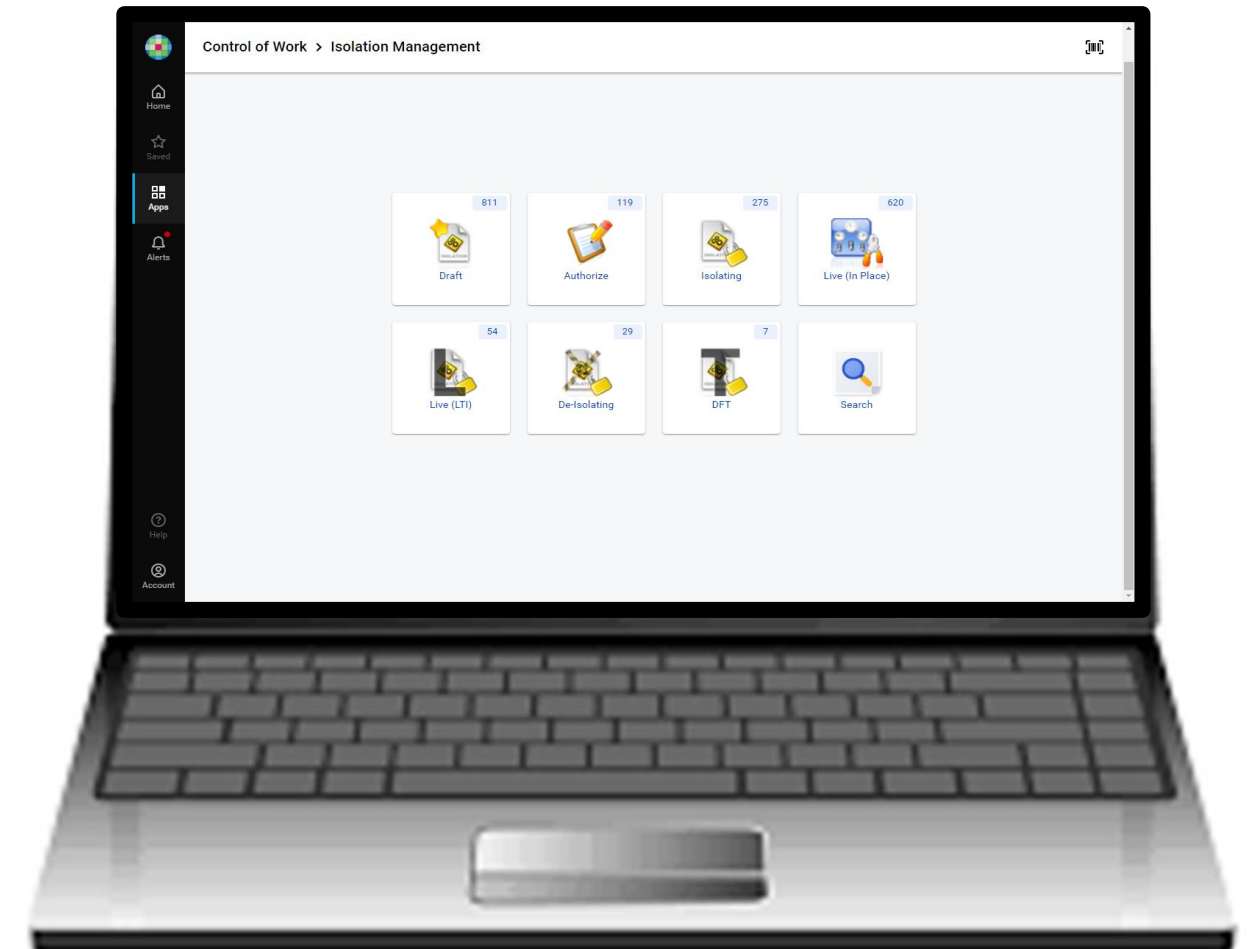
video demo



Exercise 3: Executing an isolation

Isolation Executor

- **Execute the isolation from previous exercise**
 - Access the isolation
 - Check each action item and/or isolation point to be executed
 - Sign to confirm you have executed the isolation



Questions or comments on the exercise



Knowledge check

Who is responsible for executing and confirming isolations place?

What is required in the eCOW tool to confirm isolations are in place?

**True or False?
The person who authorized the isolation can also execute the isolation.**

Describe the symbol used to indicate an isolation is in progress.

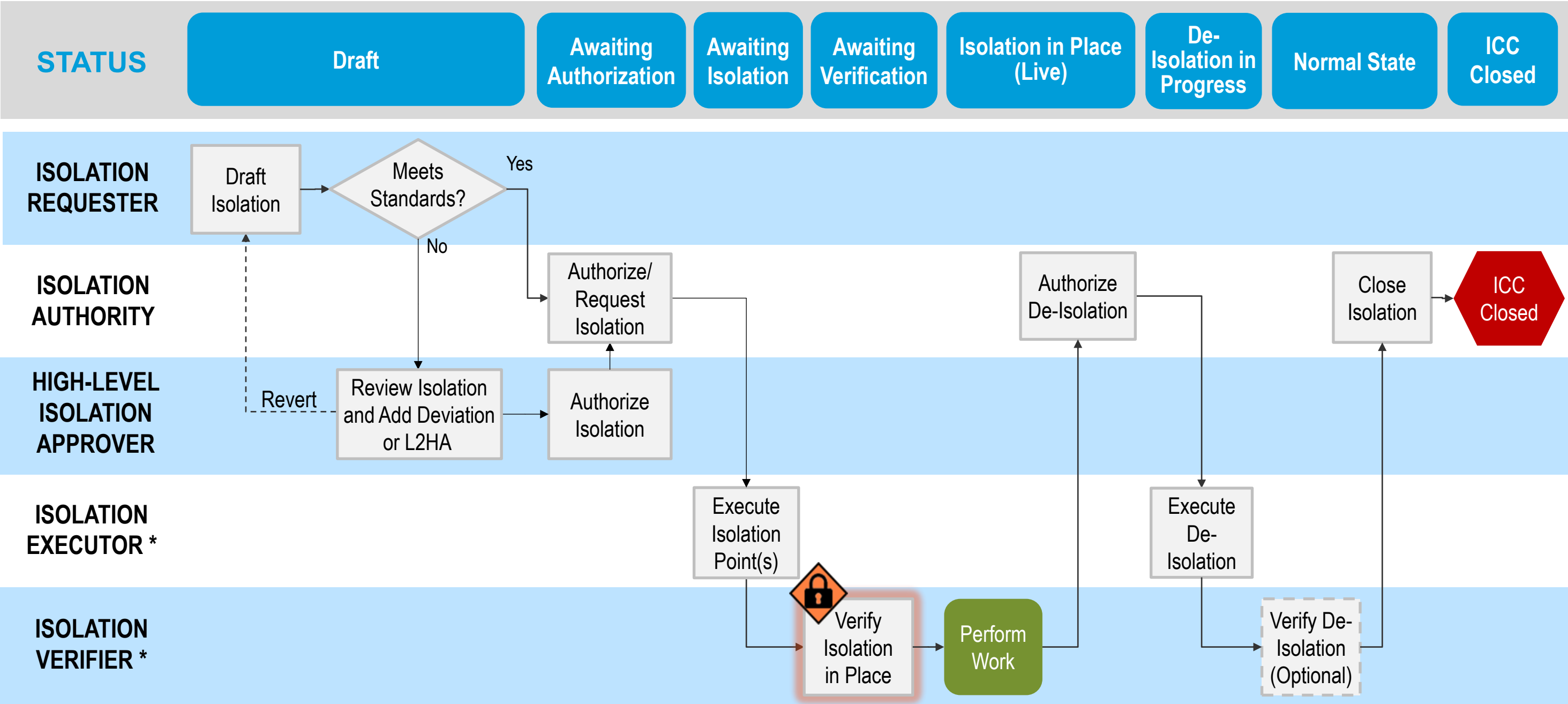


eCOW Tool

Verifying isolations in place



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Verifying isolations in place

- Isolation Verifier verifies that all isolation points are in place.

Verify All Isolations in Place by Isolation Verifier

I confirm that all isolations are in place

☐ Yes

☐ No

User ID *

MichelleForrester@chevron.com

Password *

Password

Sign as logged in

Sign

Cancel

- The Isolation Verifier must be a different person than the Isolation Executor.
- There may be multiple verifiers on an isolation. The “Guest” signing feature is available for additional verifiers.

Required signatures	Verify All Isolations in Place by Isolation Verifier Prem Kuni, 04/04/2023 5:11 AM
Optional Signatures	Verify All Isolations in Place by Isolation Verifier Sign





Verifying an Isolation

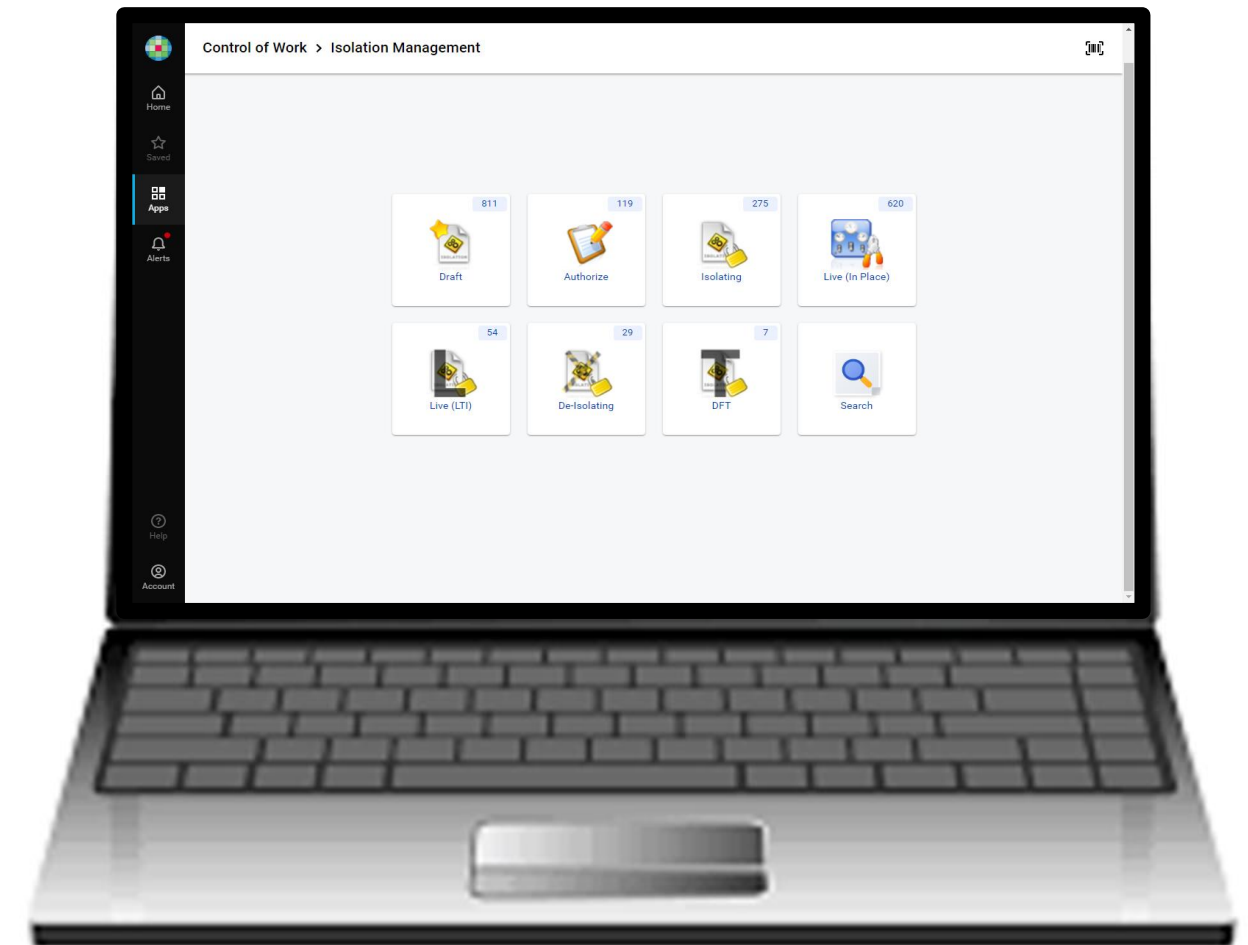
video demo



Exercise 4: Verifying isolation in place (Breakout group)

Isolation Verifier

- **Verify the isolation from previous exercise is in place**
 - Access the isolation
 - Review the isolation points and confirm they have been executed
 - Sign utilizing “over the shoulder signing” per instructor direction
- Test User 2
- Chevron01!



Questions or comments on the exercise



Knowledge check

**Who is responsible
for verifying that isolations
place?**

**True or False?
The person who executed
the isolation can also
verify the isolation.**

**True or False?
You must have 1 additional
verifier sign off for an isolation
to move to the “Live” state**

**What state does an isolation
move to after it is verified?**



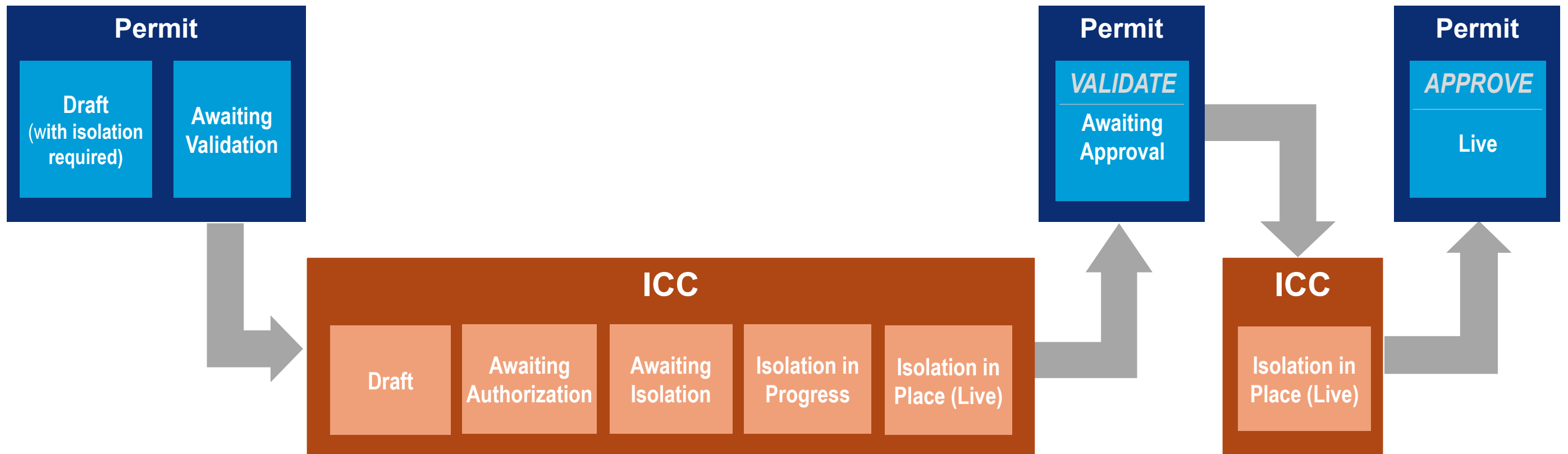
eCOW tool

Permit/isolation dependencies



Dependencies between permit and isolation

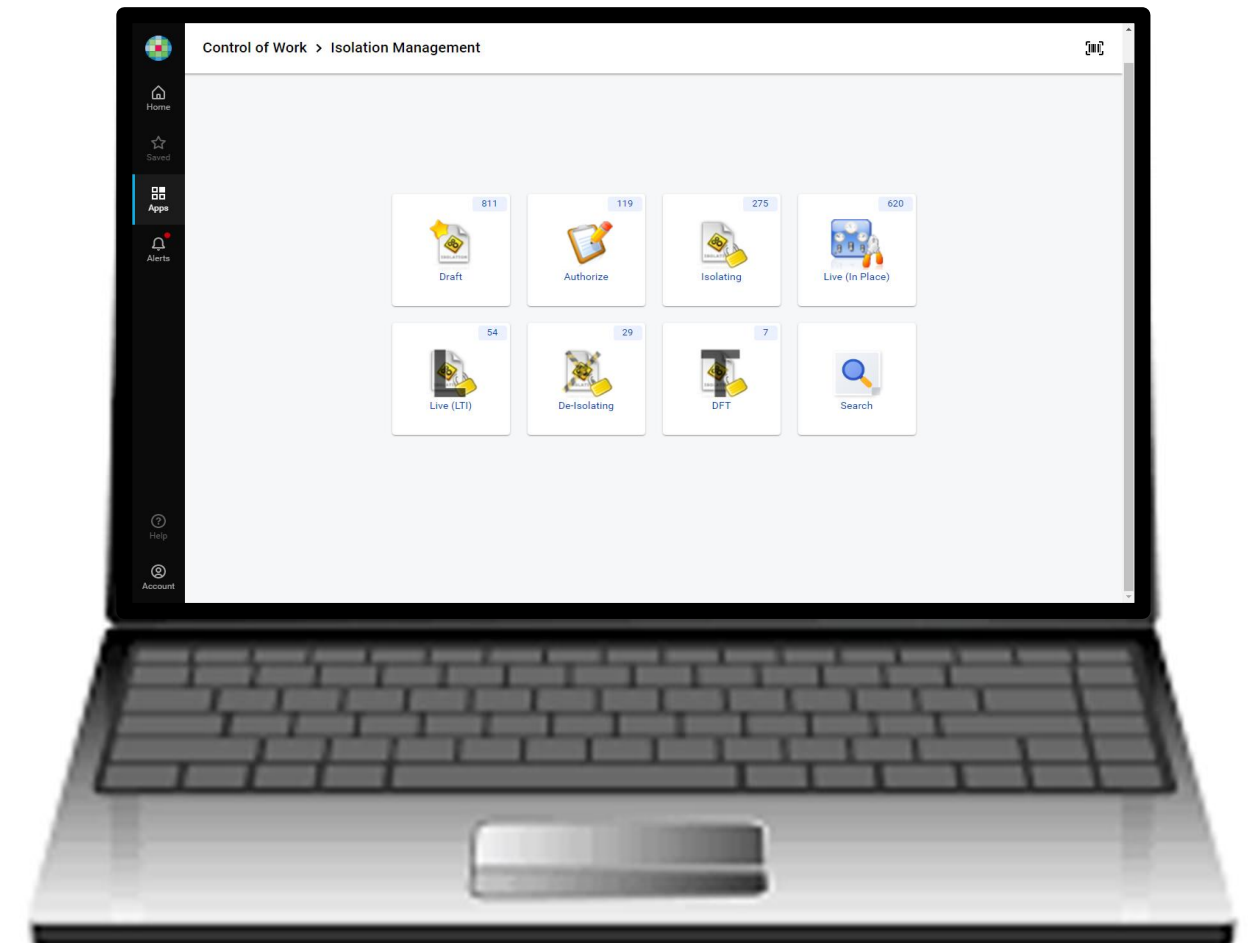
- If permit indicates that an isolation is required, an Isolation Confirmation Certificate (ICC) must be attached to the Permit before the permit can be validated
- Isolation can be in any status between *Draft* and *Live* to satisfy the permit/ICC dependency requirement, allowing the permit to be validated
- Permit can not be approved unless Isolation is *Live*



Exercise 5: Creating a permit with isolation requirement

Permit / ICC requester

- As permit requester, search for your closed permit from the 1st exercise
- From the header of a permit, copy the permit
- Add planned start date, planned end data and mark Isolation requirement = Yes
- Save your permit
- From Action button Add ICC > Existing
- Search for the ICC record you created today - by ICC Number or Title
- Review attachment tab
- Unlink the ICC you just added



Questions or comments on the exercise



Knowledge check

If a permit requires an isolation, at what point in the permit workflow must the ICC be added to the permit?

If an isolation is required for a permit, what status must the ICC be in for the permit to be approved?



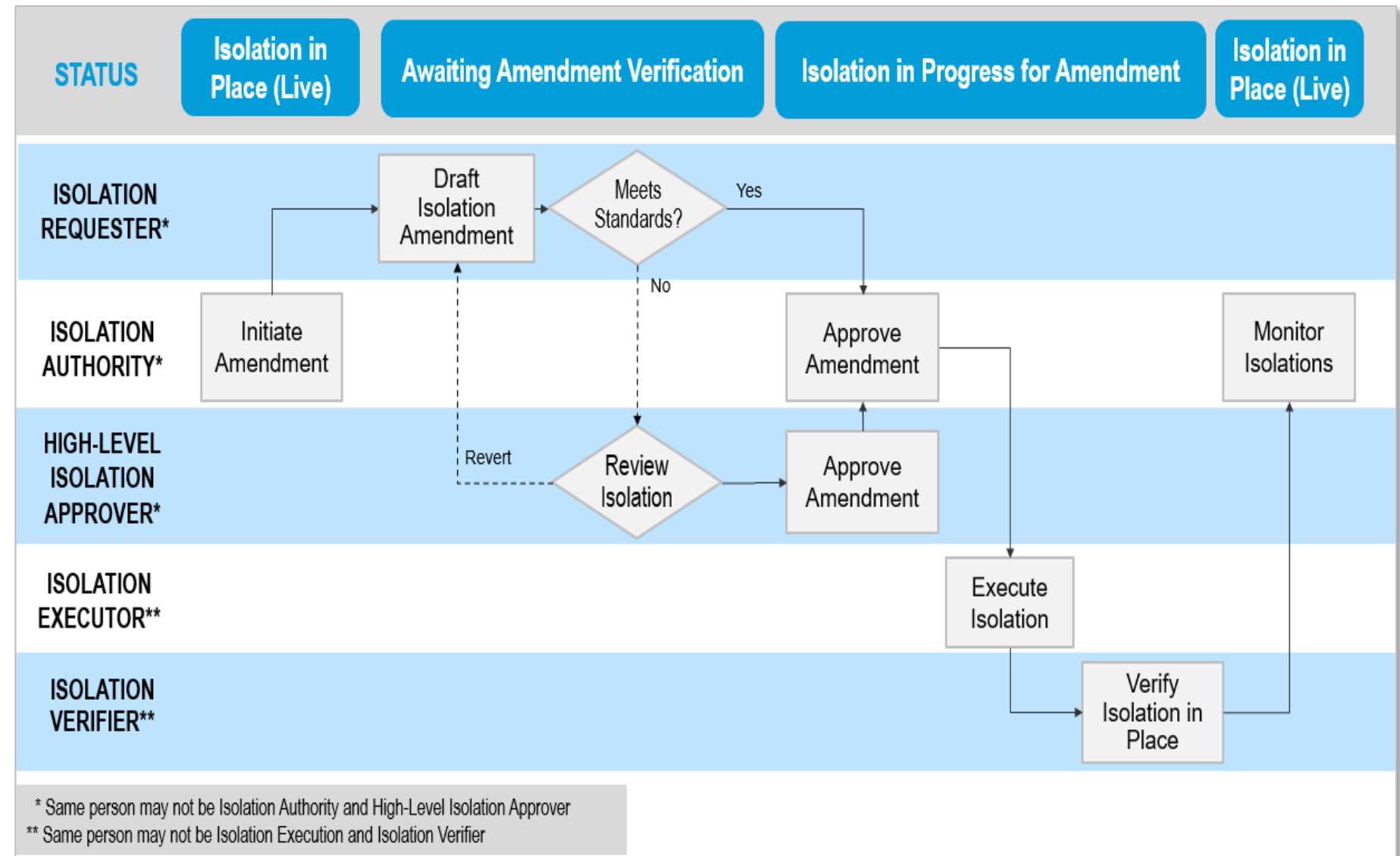
eCOW Tool

Live for amendment



Live for amendment

- Used when there is a requirement to amend the isolation confirmation certificate once isolations are in place
 - e.g., A valve passing after isolation is in place
- Existing isolations that have been confirmed cannot be edited; can only add new isolation points
- After amending the ICC, isolation workflow is progressed again from draft to isolation in place (Live)



Live for amendment dependencies

There are dependencies between permit and isolation records when an isolation is being amended.

Isolation Change	Permit requirement
Isolation in Place (Live) → Draft for Amendment	Permit cannot be Live. Permit must either not yet be issued or must be Suspended (for re-approval) state
Isolation in Progress for Amendment → Isolation in Place (Live)	Permit can now be moved back to Live

Live for Amendment (stand-alone isolation)

video demo



Live for Amendment (isolation attached to permit)

video demo



eCOW Tool

PBU amendment



PBU amendment

- Pressure build up (PBU) is often recorded for blind and process/mechanical isolation points
- Pressure build up can be updated or “amended” as needed within the isolation plan design
- To update PBU the following steps and signatures are required:
 - Amend PBU by Isolation Authority
 - Authorize PBU Changes by Isolation Authority
- While PBU update is in progress the isolation moves to “PBU Amendment” status

Required Actions

Authorize De-blinding by Isolation Authority

Possible Actions

Amend for PBU Changes

Authorize Partial Permanent De-blinding by Isolation Authority

Verify All Blinds in Place by Isolation Verifier

Countersignature

Move to Long Term Isolation

Reprint Blind Isolation tags

Add Deviation or File Attachment

Originated from CPP-408134

Optional Signatures

Amend PBU by Isolation Authority
Sysadmin Sysadmin, 05/02/2023 4:42 PM

Sign

Design Isolation Plan - Isolation CPP-408138

No.	Iso no.	Isolation Point	Type	Method	Normal State	Isolated state	Comment	Size	Rating	Blind Type	Pressure Buildup
=	1	Bottom Backup Blinds (BATTBL, 100000)	Blind	Isolation Plug	Removed	Installed		4	6		10 minutes

Required signatures

Authorize PBU Changes by Isolation Authority
Art Authority, 05/03/2023 9:13 AM

Sign



eCOW Tool

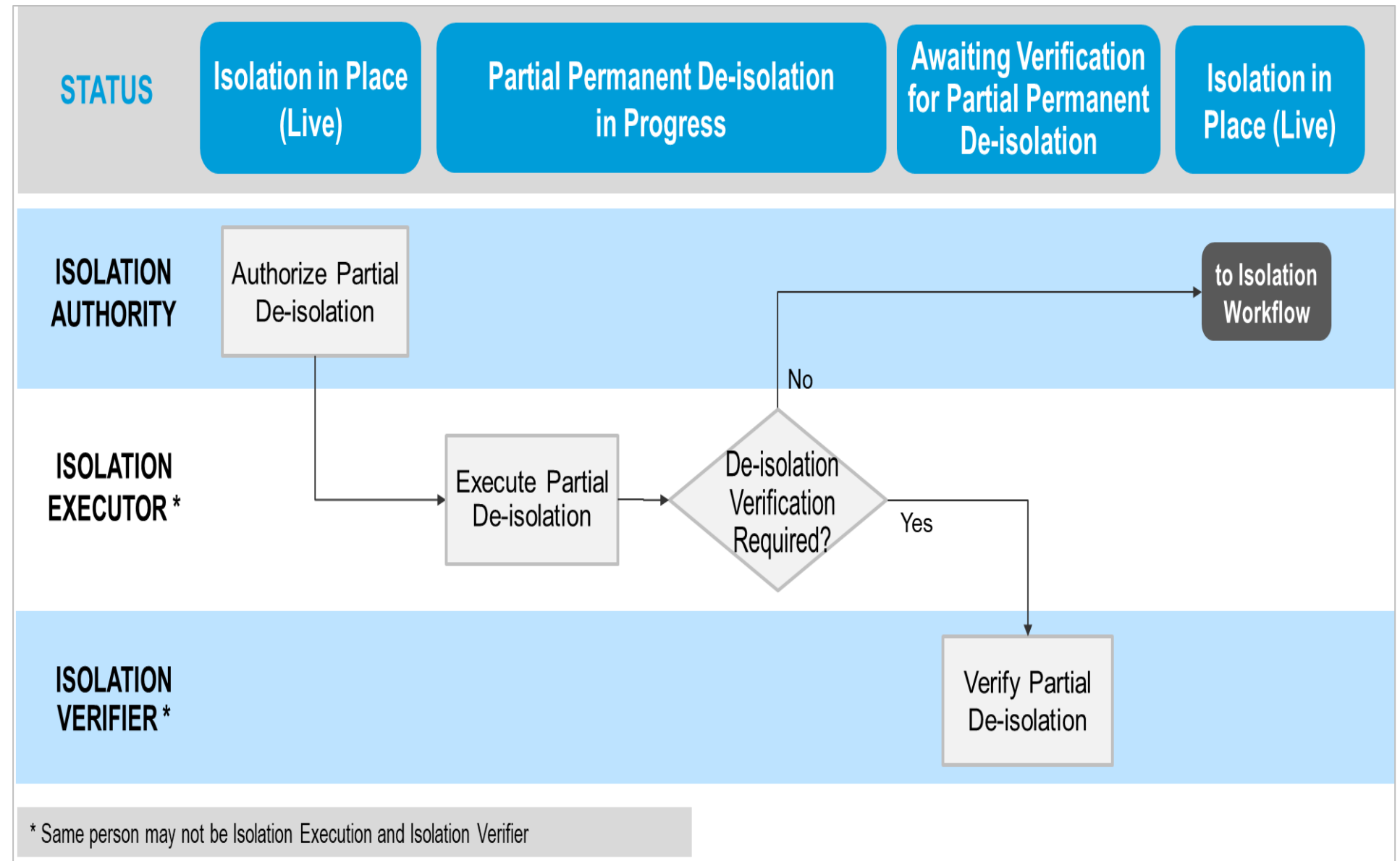
PPD

Partial Permanent De-Isolation



Partial permanent de-isolation

- De-isolation can be authorized for one or more isolation points
- “Partial Permanent De-isolation” or PPD is an option where only a portion of the isolation points are de-isolated
- At a minimum, one isolation point must remain isolated when using the PPD workflow
- The remaining isolation points can be authorized for de-isolation later

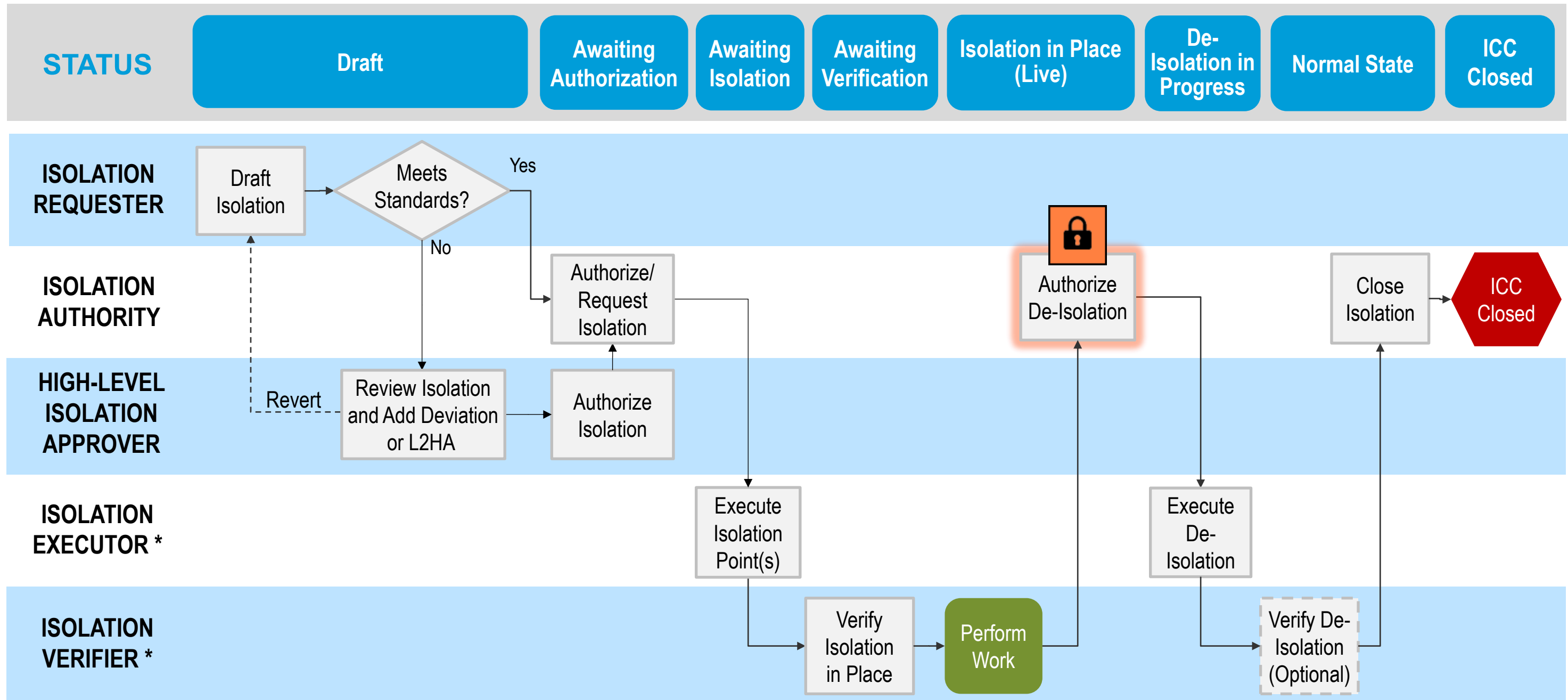


eCOW Tool

Authorizing de-isolation



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Authorizing de-isolation

- Once work is complete, isolations can be de-isolated
- Isolation Authority must authorize de-isolation, selecting the isolation points to be de-isolated
- Isolations cannot be authorized for de-isolation when the associated permit is still live

Authorize De-isolation by Isolation Authority									
☐	No.	Iso no.	Isolation Point	Type	Method	Isolated state	Normal State	DFT	
☐	1	4	0.75"-A2MRS-0417424 (BALL) (0417424)	Process/Mechanical	L/O Valve (O/C)	Closed Tristan Diaz 11/22/2022 10:17 PM	Open	☐	
☐	2	3	Motor, Cooling Fan Gen No 1 (AGB-2S-1-62*M-621050)	Exposed High Voltage Electrical	Busbar Shutters	Locked Tristan Diaz 11/22/2022 10:17 PM	Unlocked	☐	
☐	3	2	motor	Electrical	Breaker	Off Tristan Diaz 11/22/2022 10:17 PM	On	☐	
☐	4	1	Suction Valve	Process/Mechanical	Valve (O/C)	Closed Tristan Diaz 11/22/2022 10:17 PM	Open	☐	



Authorizing de-isolation

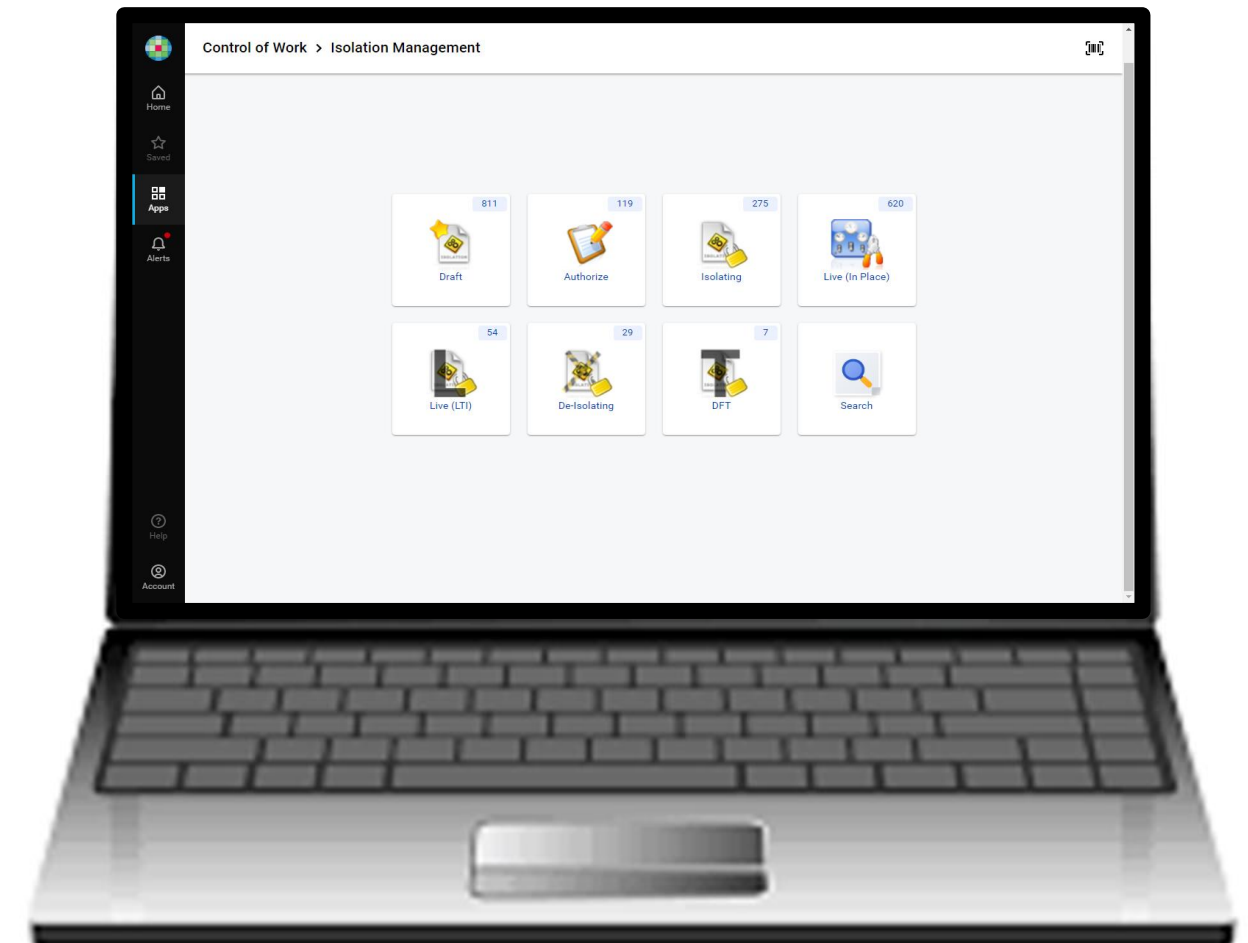
video demo



Exercise 6: Authorizing de-isolation

Isolation Authority

- **Authorize de-isolation of the isolation from the previous exercise**
 - Access the isolation
 - Select all isolation points for de-isolation
 - Sign to authorize de-isolation



Questions or comments on the exercise



Knowledge check

Who is responsible for authorizing de-isolations?

True or False?
An isolation that is attached to a live permit can be de-isolated.

Describe the symbol used to indicate de-isolation has been authorized and is in progress.

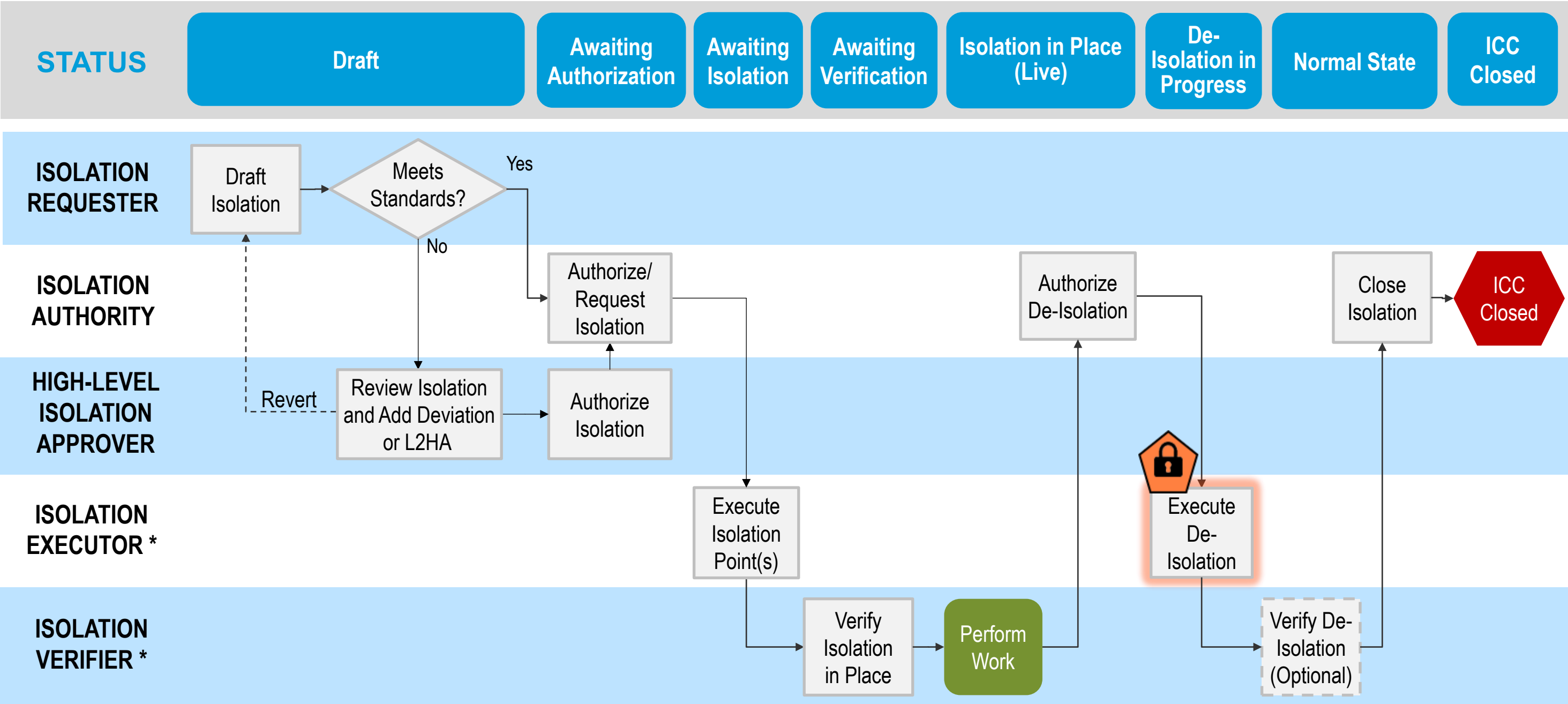


eCOW Tool

Executing de-isolation



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Executing de-isolation

- After de-isolation, Isolation Executor must execute de-isolation and confirm that it is complete
- De-isolation can only be executed for isolation points that have been authorized for de-isolation
- If all isolation points have been de-isolated, the isolation status will move to “Normal State”
- Verification of de-isolation is optional; requirement of de-isolation verification is determined when isolation is drafted

Execute De-isolation by Isolation Executor								
 Start scan								
☐	No.	Iso no.	Isolation Point	Type	Method	Isolated state	Normal State	DFT
☐	1	3	Pump, Drain Tank Oil pump 2 (PF435-PBA-8280)	Process/Mechanical	Valve (O/C)	Closed Gogo, Ibifaa Osima 11/08/2022 8:05 AM	Open	☐
☐	2	2	Pump, Drain tank oil pump 2 (PF435-PBA-8280)	Process/Mechanical	Valve (O/C)	Closed Gogo, Ibifaa Osima 11/08/2022 8:05 AM	Open	☐



Executing de-isolation

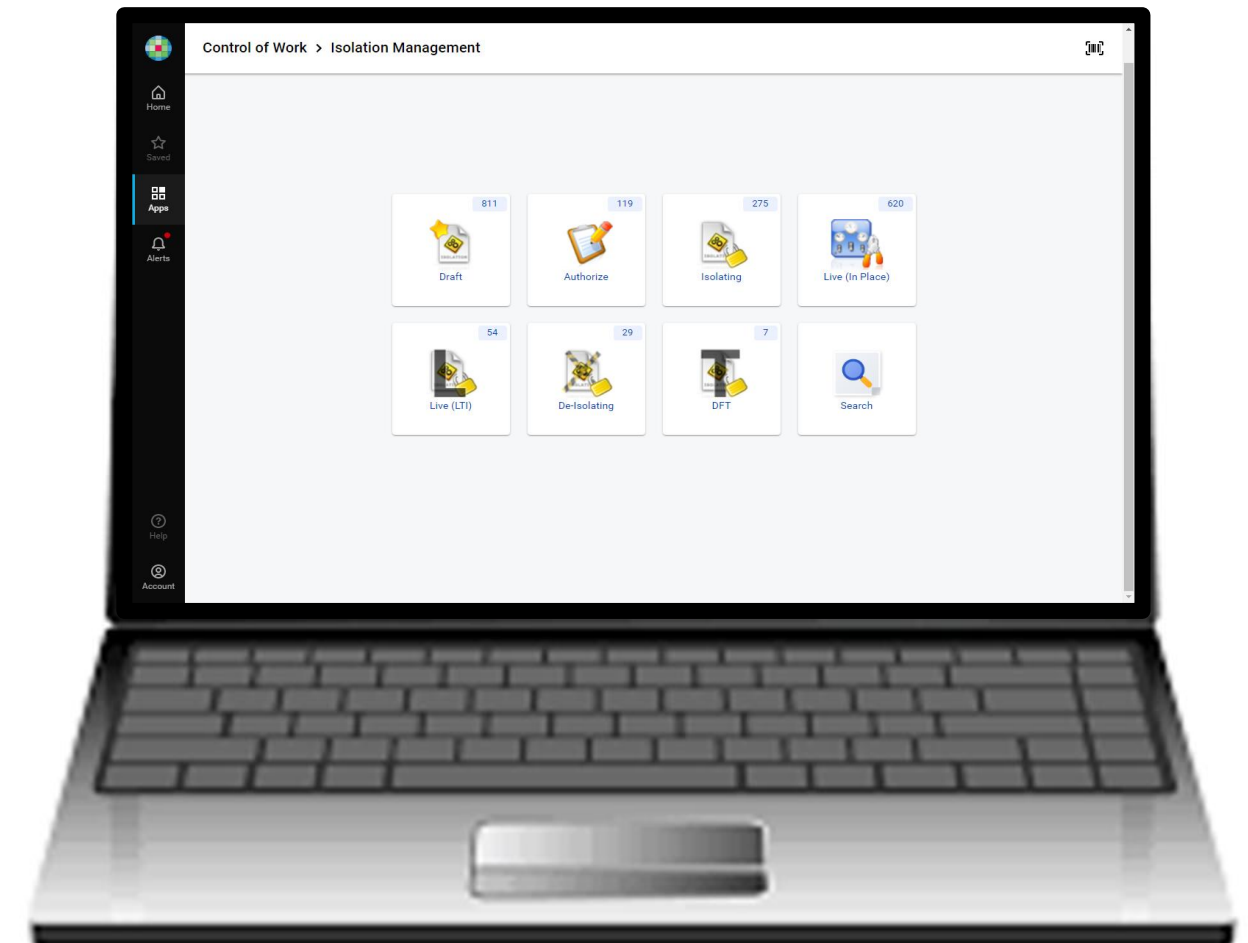
video demo



Exercise 7: Confirming de-isolation

Isolation Executor

- **Confirm de-isolation of the isolation from the previous exercise**
 - Access the isolation
 - Select all isolation points for which you are confirming de-isolation
 - Sign to confirm de-isolation



Questions or comments on the exercise



Knowledge check

**Who is responsible for
executing and confirming
de-isolations?**

**True or False?
De-isolations must be
physically confirmed before
confirming de-isolation
in the tool.**

**After de-isolation is confirmed,
what is the status of the
isolation?**

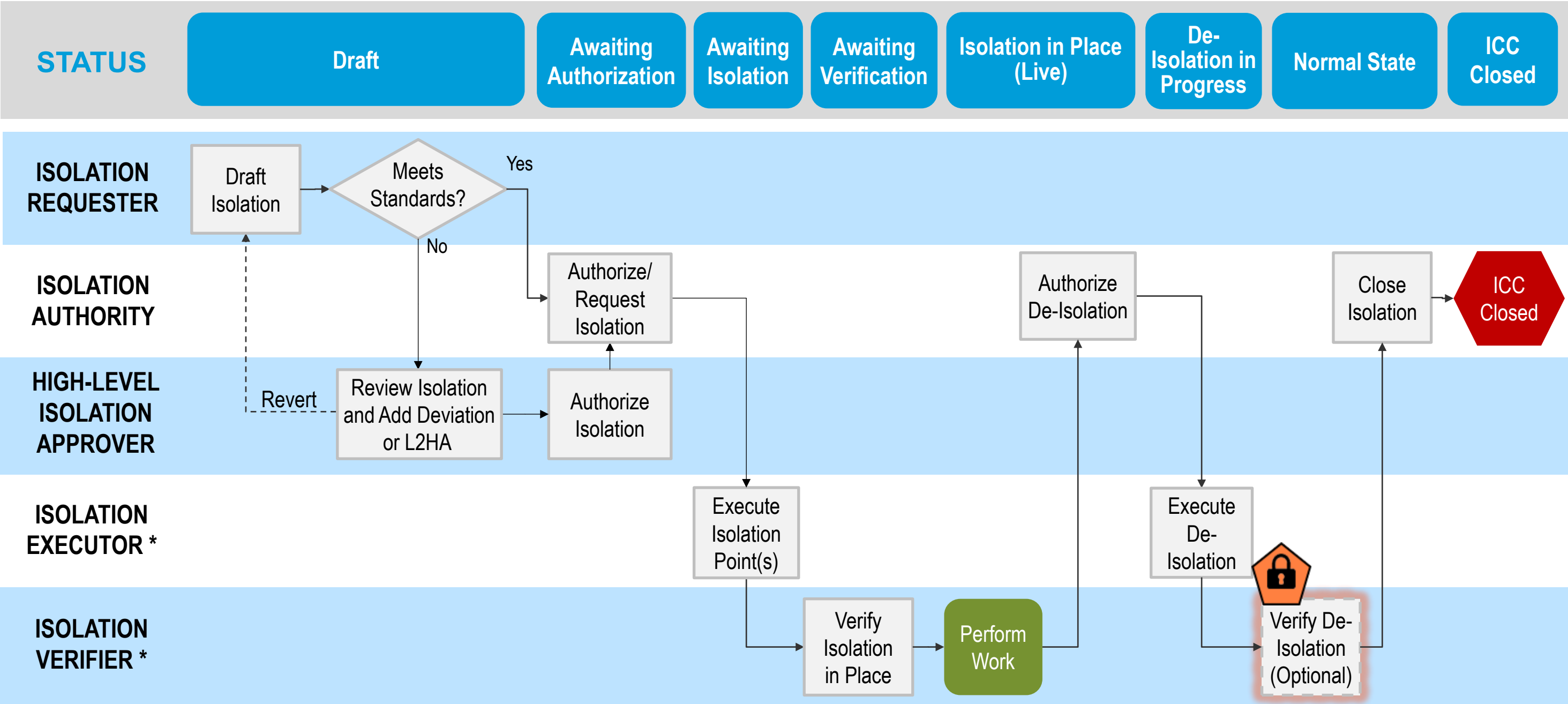


eCOW Tool

Verifying de-isolation



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Verifying de-isolation

- Verification of de-isolation is optional for “Isolation Certificate” type isolations
- Whether or not de-isolation verification is required is determined when an isolation is drafted

 New Isolation Certificate

1

Isolation Details

Type *

Isolation Certificate

Offline Approval and Execution

☐ Yes ☒ No

De-Isolation Verification Required? *

☐ Yes ☒ No

Verify de-isolation by Isolation Verifier

I confirm all points are de-isolated

☒ Yes

☐ No

Remarks

User ID *

Joe Smith

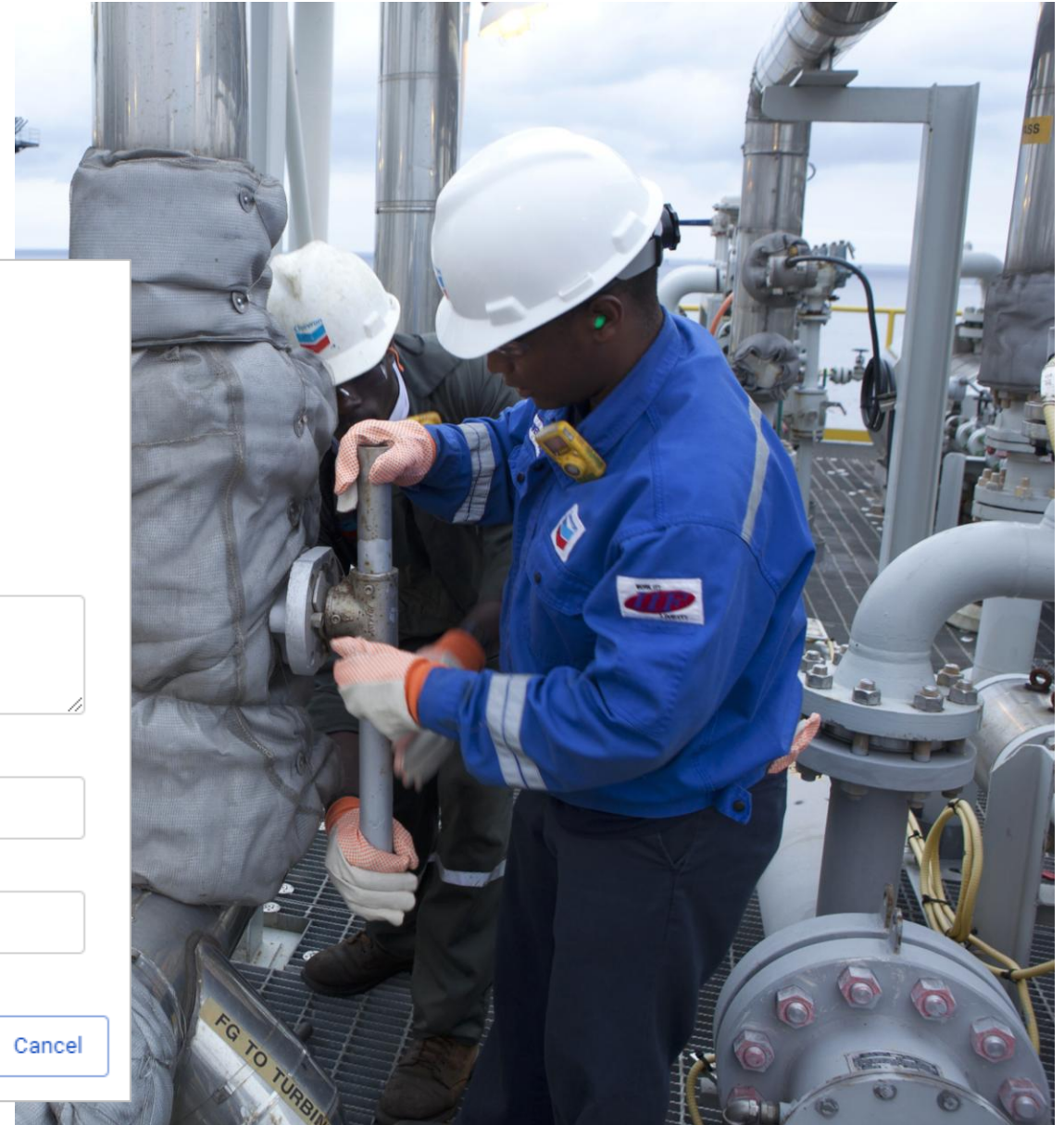
Password *

Password

Sign as logged in

Sign

Cancel

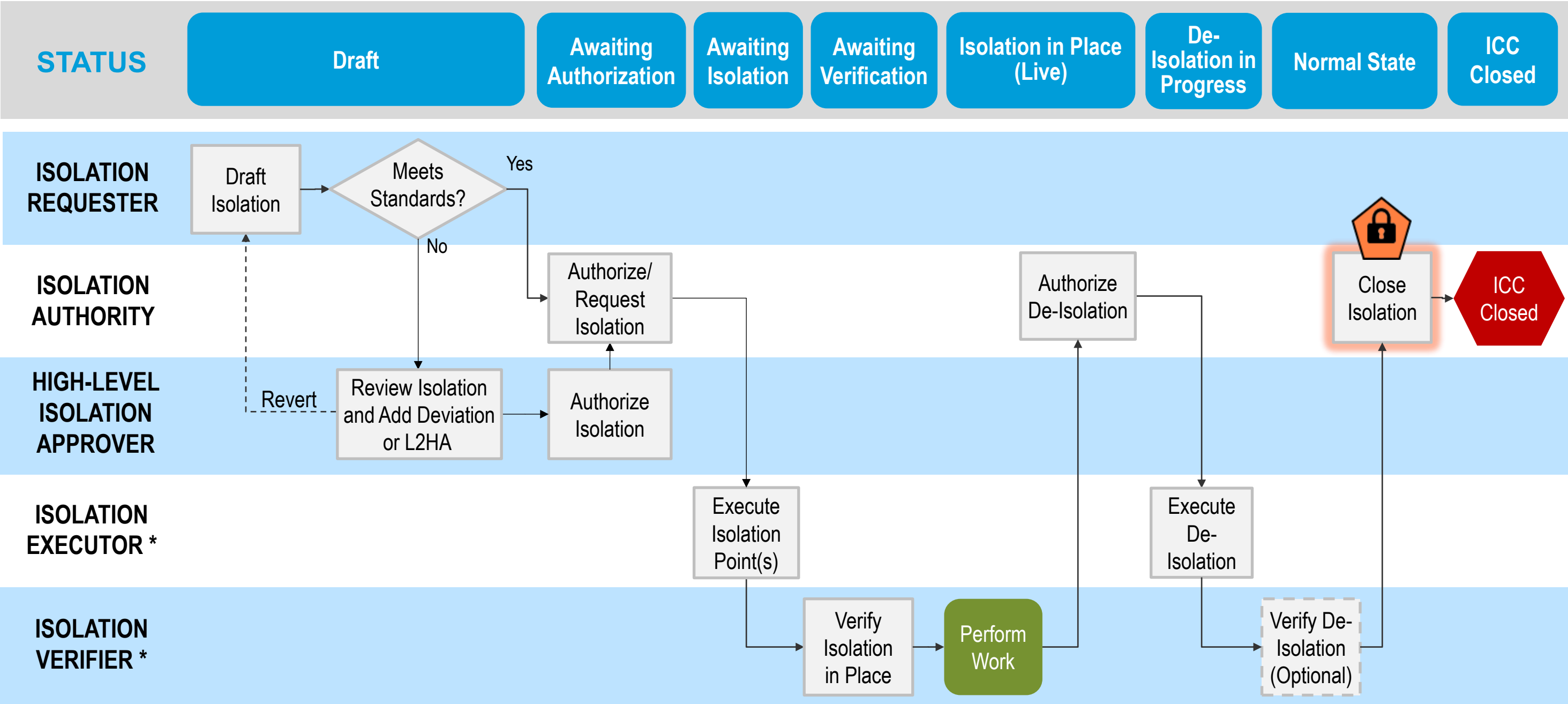


eCOW Tool

Closing an isolation



Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Closing an isolation

- The final step in the workflow is for the Isolation Authority to close the isolation
- Lessons learned may also be added when closing an isolation
- Closing the isolation will remove it from site graphics
- After closing, the isolation will move to “ICC Closed” status



AGBAMI-FPSO-242525 (Normal State)
Isolation Certificate - ELECT: To install Fan Heaters on GTG #1 alternator.



Lessons learned

+ Add Lesson learned

Required signatures

Authorize De-isolation by Isolation Authority
Olukunga, Moruf, 10/24/2022 4:06 PM

Required signatures

Execute De-isolation by Isolation Executor
Olukunga, Moruf, 10/24/2022 4:06 PM

Required signatures

Close by Isolation Authority

Sign as logged in

▼



Closing an isolation

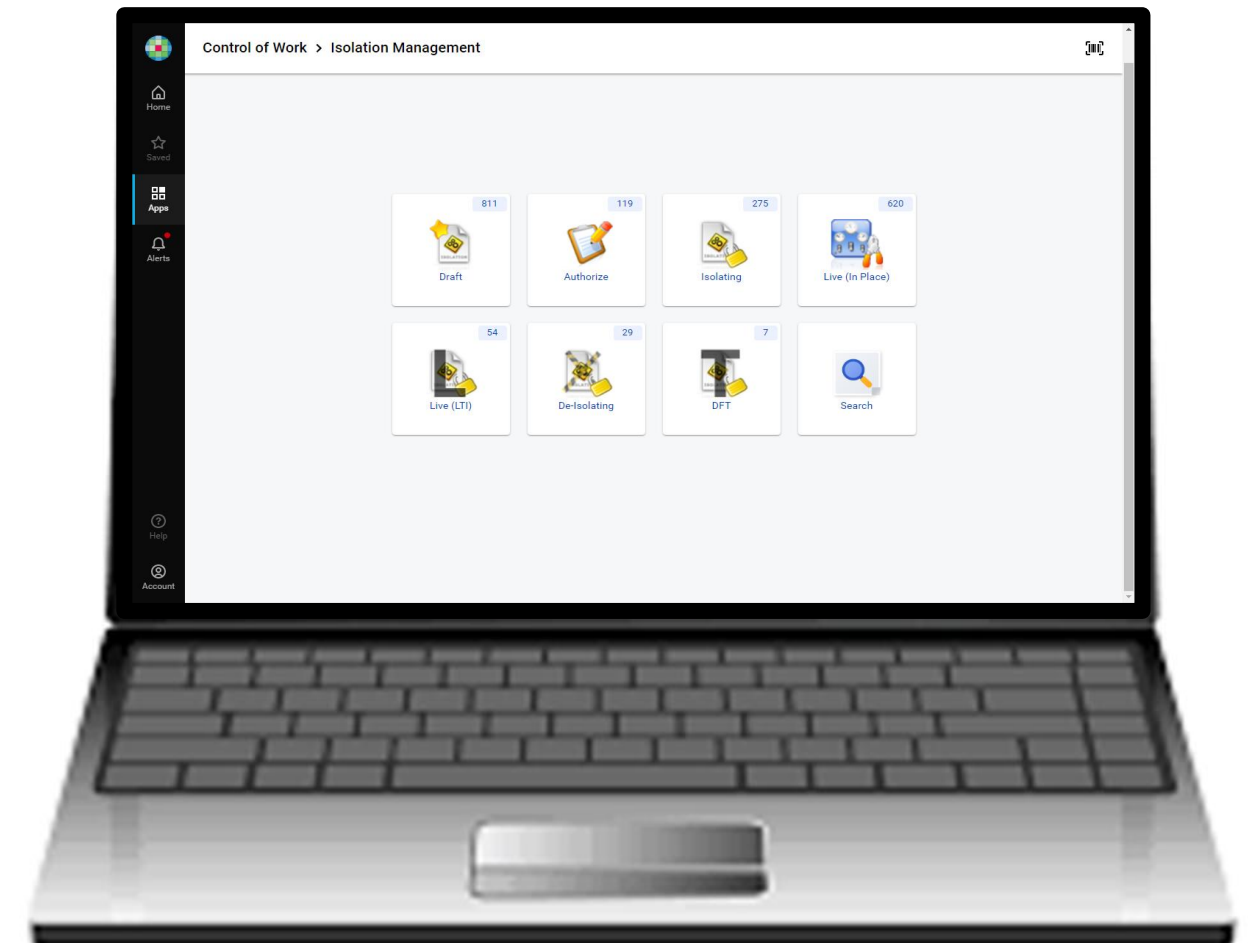
video demo



Exercise 8: Closing an isolation

Isolation Authority

- **Close the isolation from the previous exercise**
 - Access the isolation
 - Add a “Lesson Learned”
 - Sign to close the isolation



Questions or comments on the exercise



Knowledge check

Who is responsible for closing isolations?

What status does the isolation move to after it is closed?

Describe the symbol used to indicate an isolation is closed.

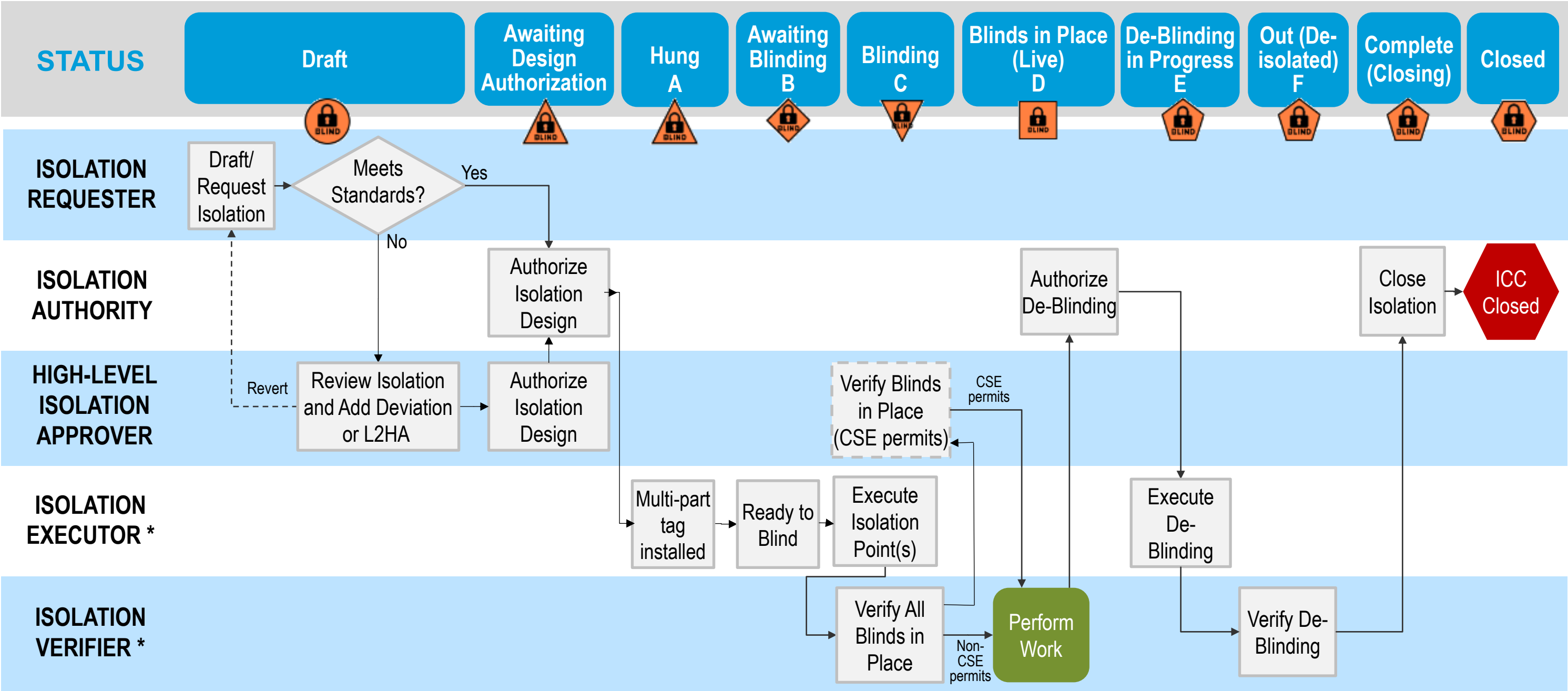
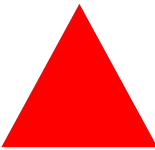


eCOW Tool

Blind isolation workflow



Blind isolation workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Blinding isolations

- Another option to a general isolation certificate is a “Blinding” isolation certificate
- Blinding is used in BUs or sites that use multi-part blind tags and aids flange management
- Blinding isolations have a distinct blind isolation workflow and statuses that align with the parts on the Blind Isolation tag



The screenshot shows a web form titled "New Isolation Certificate". At the top left is a circular icon with a padlock and the word "BLIND". Below the title is a section labeled "1 Isolation Details". Inside this section, there is a dropdown menu labeled "Type *". The dropdown is open, showing "Blinding" as the selected option. Below the dropdown, the text "Isolation Certificate" is visible, followed by another "Blinding" option in a greyed-out state.

Additional Business Rules for “Blinding” ICC type

1. Requires a 2nd “Isolation Authorization” signature to move the isolation to “Awaiting Blinding”
2. The “De-Isolation Verification Required” signature is required for all :Blind” type isolations
3. If the ICC is associated with a CSE permit, it will require an HLIA to sign off after the ICC has been “Verified” before moving to the “Live” state
4. Will apply the ICC Blind icon



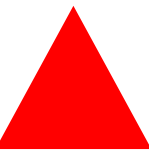
The “Blinding” or “Isolation Certificate” ICC types may still include any of the 4 isolation point types and will follow the business rules of the Isolation type selected

Isolation status and icons for blinding

- Blinding isolations follow a similar workflow, but statuses are different
- Blinding isolations utilize the same icons with “Blind” on the bottom:

WORKFLOW STATUS	ICON	WORKFLOW STATUS	ICON
Draft / Draft for Shutdown		Partial Permanent De-Blinding	
Awaiting Design Authorization		De-blinding in Progress – E	
Hung – A		Out (De-Isolated) – F	
Awaiting Blinding – B		Complete (Closing)	
Blinding – C		Closed	
Blinds in Place (Live) – D		Long Term Blind	

Multi-Part Blind Tag

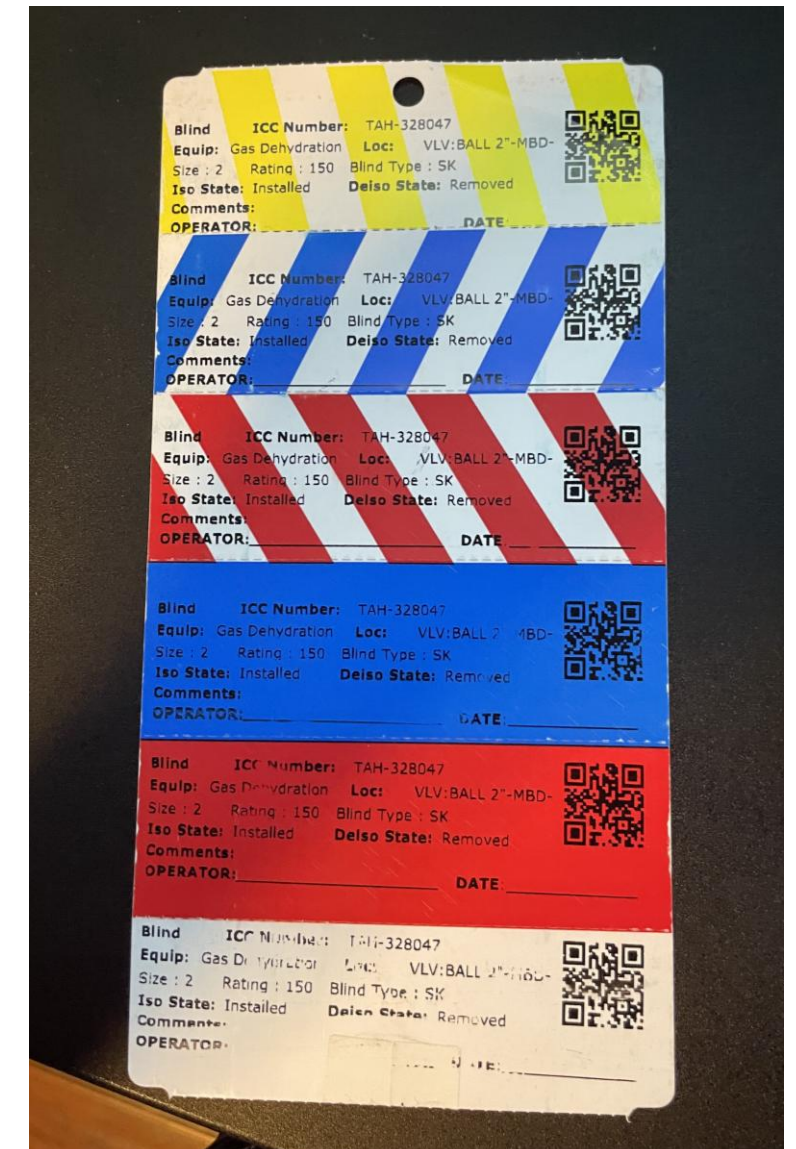


The individual Isolation point type will determine the ICC tag format to be applied.

- Process/Mechanical, Electrical, Exposed High Voltage Electrical point type applies the regular tag
- Blind point type applies the multi-part blind tag



Front of Tag



Back of Tag - Printable Side



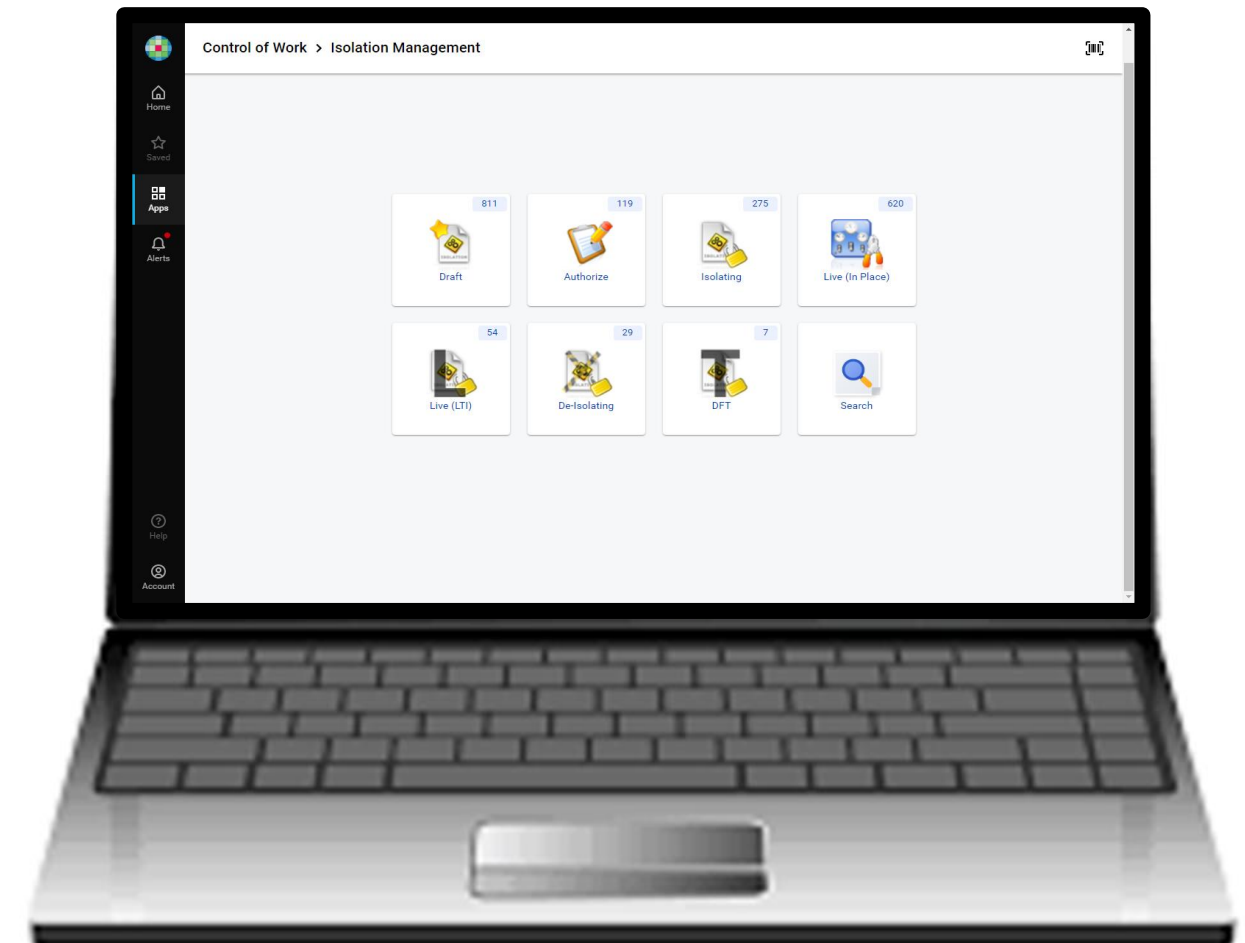
Questions or comments on the exercise



Exercise 9: Blinding Isolation (Optional Exercise)

Blind Isolation

- Access the isolation module
- Select “Blinding” as isolation type and fill in required details in Step 1
- Design isolation plan in Step 2
- Request Isolation
- Review and Authorize Isolation and then sign for 2nd Authorization
- Execute blind isolation
- Verify blind isolation
- Authorize de-blinding
- Execute de-blinding
- Verify de-blinding
- Close blind isolation



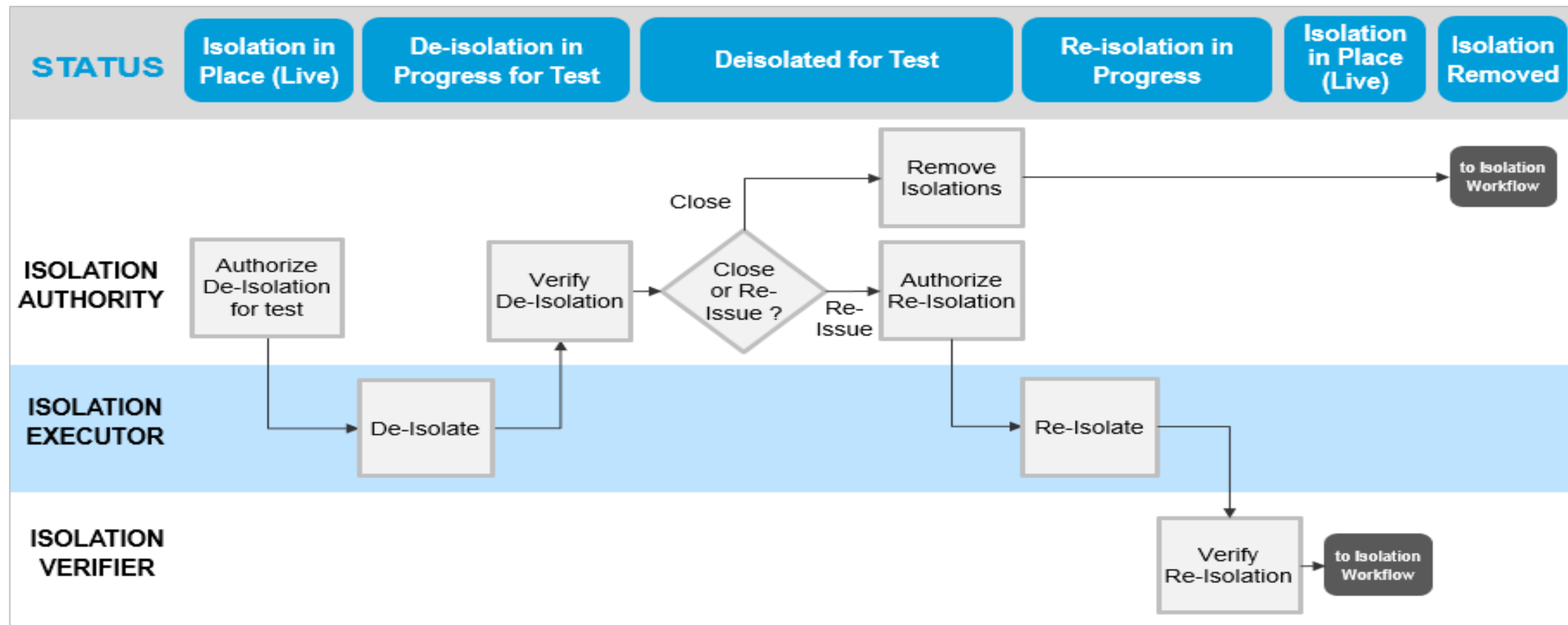
eCOW Tool

De-isolation for test



De-isolation for test

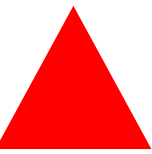
- Used when there is a requirement to de-isolate all or some points on the ICC to carry out testing
- Allows isolations to be safely removed and tests carried out before full scope of work is completed
- Points required to be de-isolated may be 'marked' during the isolation design phase, but not mandatory
- 'DFT' can only be performed on an ICC when it is attached to a permit



De-isolation for test dependencies

There are dependencies between permit and isolation records when an isolation is being de-isolated for test.

Isolation Change	Permit requirement
Isolation in Place (Live) → De-Isolation for Test	Permit must be in Suspended (for test) state
De-Isolated for Test → Re-isolation	Permit must be in Suspended (for revalidation) state or Closing state

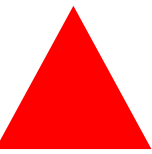


De-isolation for test

(moving to authorize de-isolation)

video demo





De-isolation for test (then re-isolate)

video demo



eCOW Tool

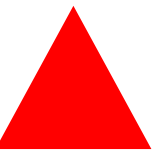
Long-term isolations



Long term isolations (LTI)

- Used for isolations that need to remain in place for an extended period with no activities being performed against the isolation
- ICCs can remain in 'LTI' for an indefinite time period
 - However, must be reviewed every 30 days and audited every 90 days with comments provided, as applicable
 - Reviews/audits signed for via 'Action Page' tab
- Associated permit(s) must be 'Closing' or 'Closed'
 - Job may be marked as 'Complete' or 'Incomplete'
- Isolation Authority transfers ICC into and out of 'LTI'
- Cannot transfer to LTI from Offline Isolation in Place (Live)
- LTI can be applied to both "Isolation Certificate" and "Blinding" isolation types





Long-term isolations

video demo



eCOW Tool

Offline Isolation Workflows



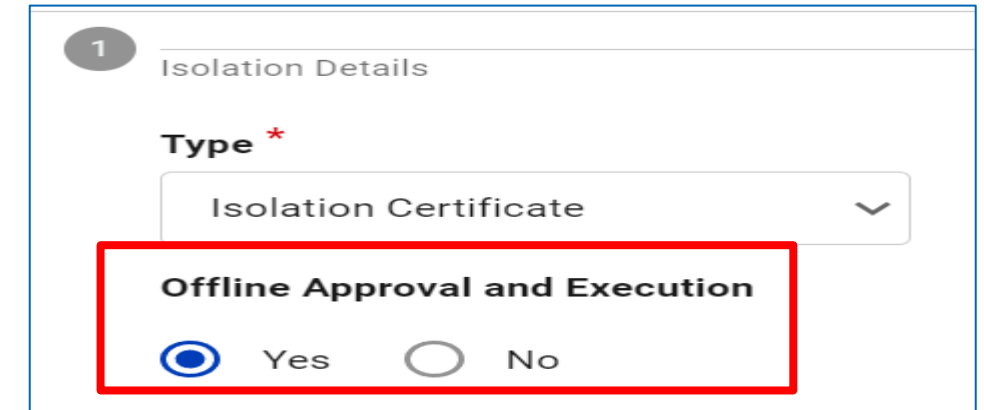
Offline Isolation Workflows

In step 1 of drafting of an ICC, the user can select “Offline Approval and Execution” for both the Isolation Certificate and Blinding workflows.

In the Offline Isolation workflow, the Isolation Authority approves the entire plan, there is not an option to approve just certain points. The “Offline ICC” print profiles are then used to print documents (ICC, P&IDs, EIL, etc.) to use in the field with “wet ink” signatures.

The isolation will move to (Offline Isolation in Place (Live)). The Isolation Executor(s) and Isolation Verifier(s) do not have a role in the eCOW tool in the offline workflow. The next step would be to “Close Offline Isolation by Isolation Authority” in the offline ICC workflows. Any Amendments, PBU, PPD, or DFT would be managed offline.

The offline ICC “Wet ink” documents should be scanned and attached to the ICC before closing the certificate.



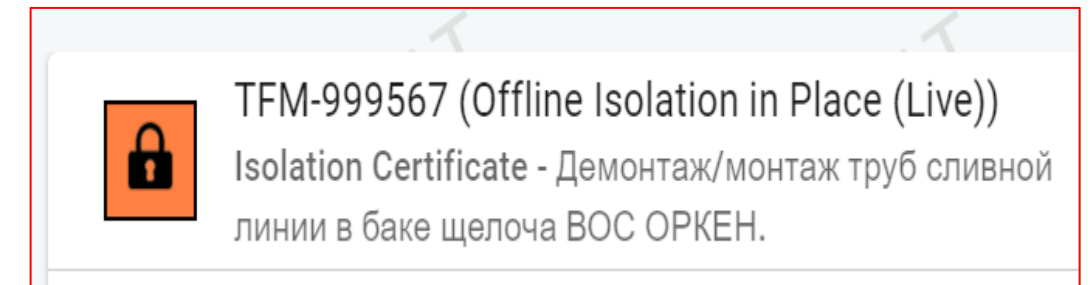
1 Isolation Details

Type *

Isolation Certificate

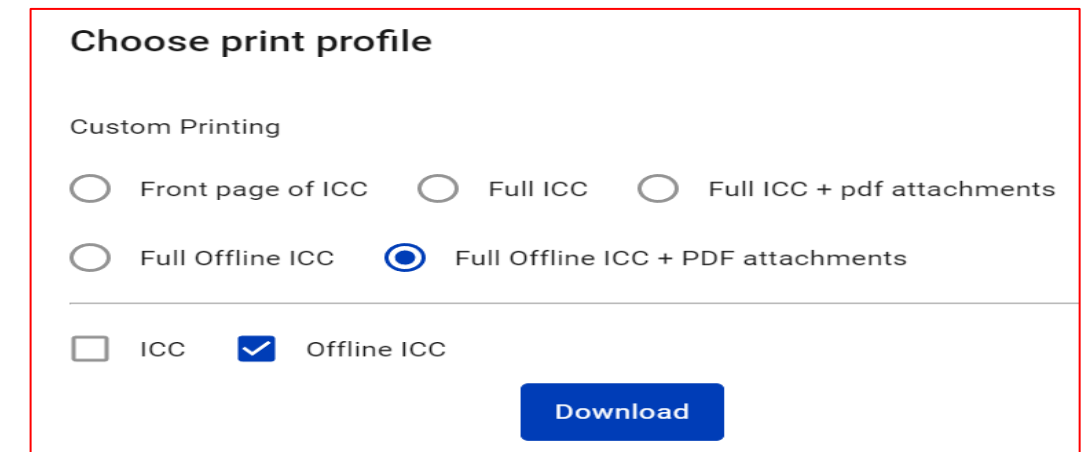
Offline Approval and Execution

☒ Yes ☐ No



TFM-999567 (Offline Isolation in Place (Live))

Isolation Certificate - Демонтаж/монтаж труб сливной линии в баке щелоча ВОС ОРКЕН.



Choose print profile

Custom Printing

☐ Front page of ICC ☐ Full ICC ☐ Full ICC + pdf attachments

☐ Full Offline ICC ☒ Full Offline ICC + PDF attachments

☐ ICC ☒ Offline ICC

Download

Offline Isolation Print Forms





Isolation Certificate

Number : TFM-999567

State : Offline Isolation in Place (Live)



Title:

Демонтаж/монтаж труб сливной линии в баке щелоча ВОС ОРКЕН.

Reason for Isolation:

Демонтаж/монтаж труб сливной линии в баке щелоча ВОС ОРКЕН.

Details

Site:

Tengiz Facilities Management

Area:

Orken

Work Location:

TFM - Orken

Equipment:

50-T-7629-52

Lockout Box:

Nº2

Signatures

Signature	Signee	Remarks	Date	Company
Authorize Offline Isolations by Isolation Authority	Mahl John		6/27/2024 7:50 PM	Chevron
Request Process/Mechanical Isolation	Mahl John		6/27/2024 7:36 PM	Chevron
Verify All Isolations In Place By Isolation Verifier				
Authorize Offline De-Isolation By De-Isolation Authority				

Isolation Plan

Step	Iso No.	Isolation Point	Lock No.	Comments	Size	Rating	Type	Method(s)	Normal State	Isolated State	Initials
1	1	VB-39197					Process/Mechanical	L/O Valve (O/C)	Open	Closed	
2	2	VB-39198					Process/Mechanical	L/O Valve (O/C)	Open	Closed	

TFM-999567

6/27/2024 8:06 PM

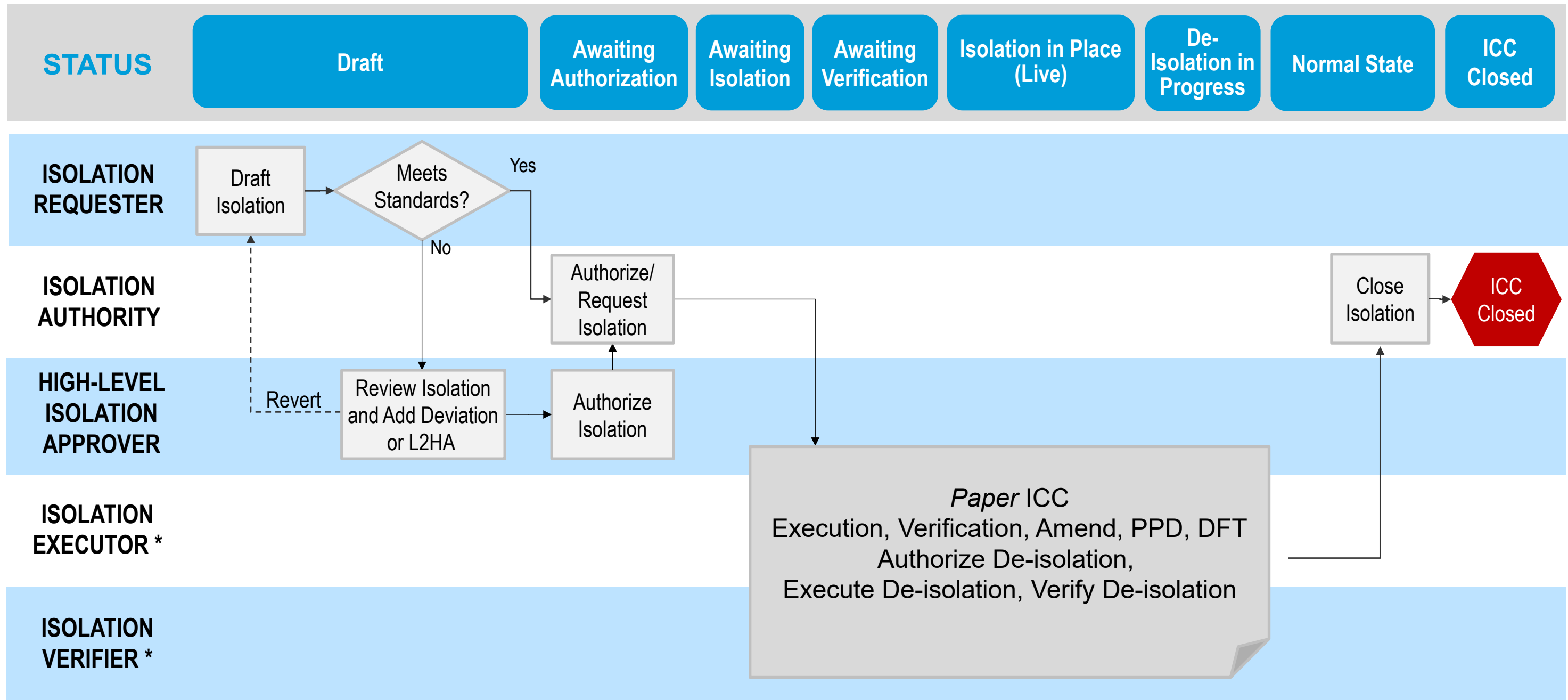
Page 1 of 2



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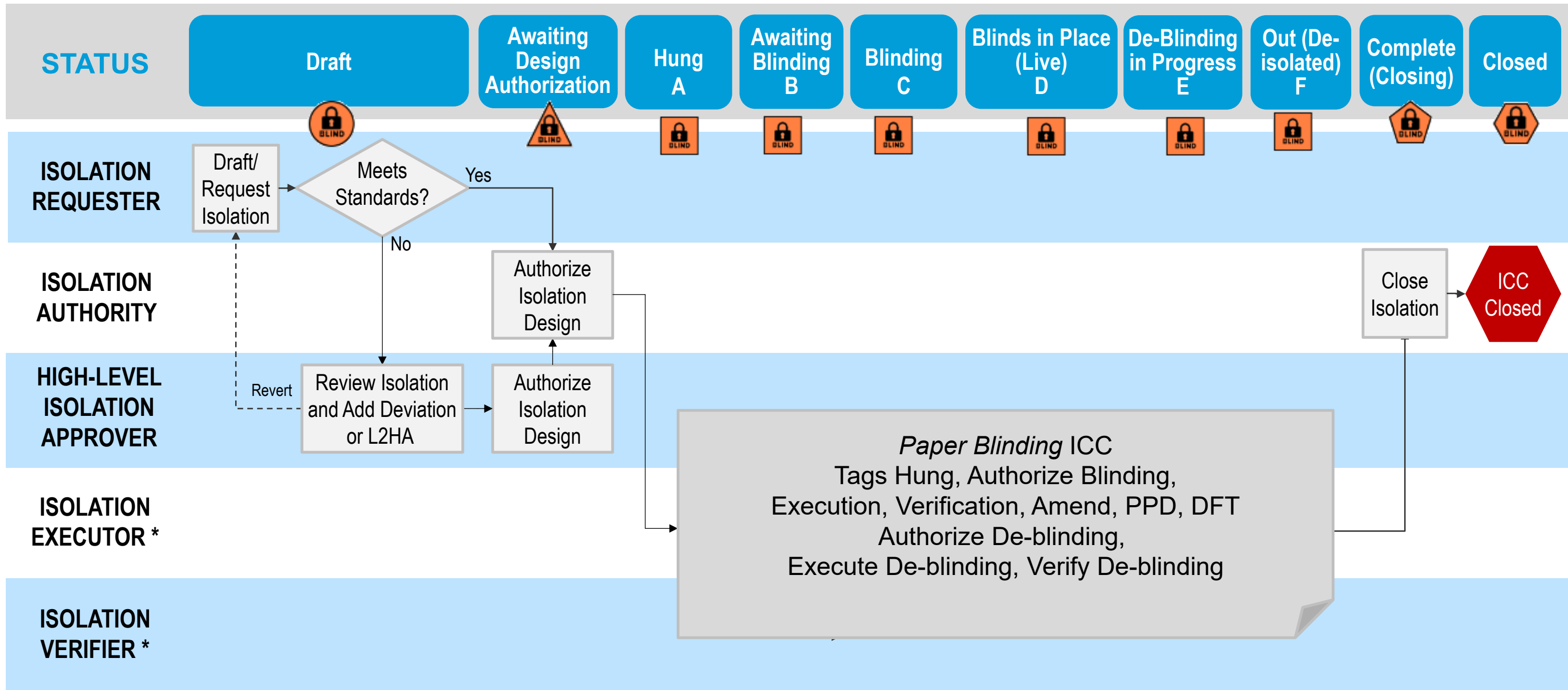
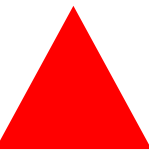
Offline Isolation workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Offline Blind isolation workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



eCOW Tool

Creating isolation templates



Offline Isolation Workflows

1

Isolation Details

Type *

Isolation Certificate



Offline Approval and Execution



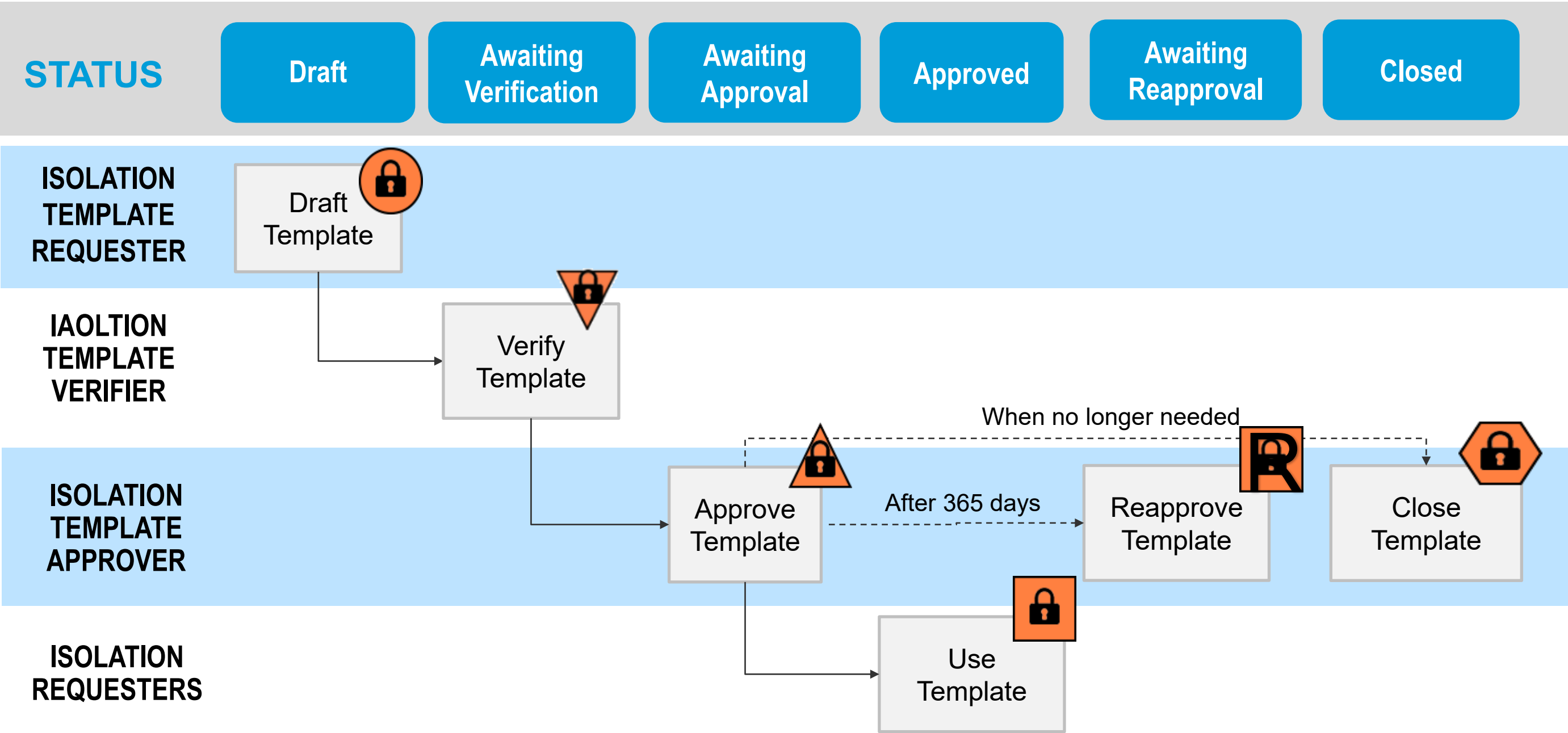
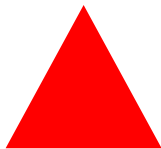
Yes



No

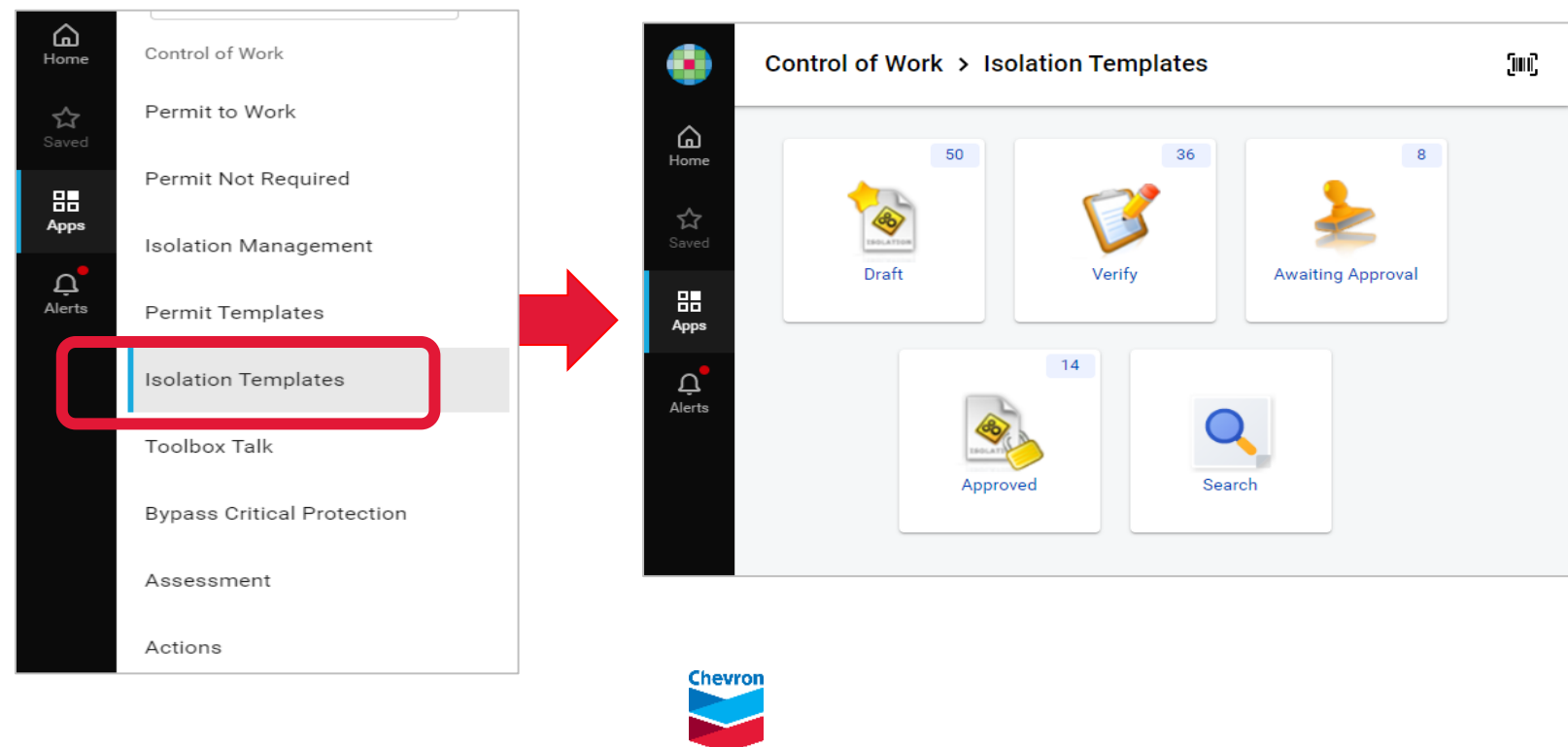


Isolation template creation workflow



Isolation templates

- Created via the 'Isolation Templates' app or from an existing ICC
- Follows a similar workflow for approval and publishing as a routine ICC
- Same field requirements as ICC, if the Equipment and / or the location is left blank, it will allow a user to select those items when creating an isolation from the approved isolation template
- Valid for 365 days
- The template is not the working document - ICC created from approved template is the working document



eCOW Tool Assessments



Isolation assessments

- Assessments can be created to evaluate an isolation or de-isolation

The screenshot displays the 'Control of Work' application interface. On the left, a sidebar menu lists various options, with 'Assessment' highlighted. The main content area shows a table of existing assessments in a 'Draft' state, with a '+ Assessment' button at the bottom right. To the right, the 'Create Assessment' form is shown, featuring fields for 'Assessment date', 'Assessor', 'Site', and 'Type'. The 'Type' dropdown menu is open, showing a list of assessment categories, with 'Isolation' selected and highlighted.

Control of Work > Assessment > Draft

Type	Number	Title	Status	Site	Location	Equipment
Confined Space Entry	EGTL-036302	EGTL-036302	Draft	EGTL		
Confined Space Entry	EGTL-036293	EGTL-036293	Draft	EGTL		

Create Assessment

Assessment date *
12/17/2022

Assessor *
Michelle Forrester

Site *
Agbami FPSO

Type *
General Permit
General Isolation
Open Flame Hot Work
De-Energized Electrical Work
Excavation
Confined Space Entry
Lifting & Rigging
Working at Height
Isolation
De-Isolation
General Bypass Critical Protection

Associating an assessment to an isolation

- An Assessment can be associated to a specific isolation
- A Search function is embedded in the assessment to help locate the associated isolation
- Search filters for isolations include:
 - Area
 - Number
 - Site
 - Title

Create Assessment

Assessment date *

12/17/2022

Assessor *

Michelle Forrester

Site *

Agbami FPSO

Type *

Isolation

Isolation *

Select

Create Assessment

Area

7 items checked

Number

Site

Title

	Number	Title	Status	Site	Location	Equipment
 Isolation Certificate	AGBAMI-FPSO-265327	test	Closed	Agbami FPSO	Tank - Module 3	Active Fire Protection / 0.75"-A2MRS-0417427 (BALL) (0417427)
 Isolation Certificate	AGBAMI-FPSO-265267	Test New UI	Isolation in Place (Live)	Agbami FPSO	Tank - Module 5	Active Fire Protection / 1"-A2RRS-0406354 (BALL) (0406354)
 Isolation	AGBAMI-FPSO-264339	ELECT: FIX FAULTY ENCLOSURE VENT FANS B-455010/B-455020 ON I P #1	Isolation in Place (Live)	Agbami FPSO	5P Level 2	Fan, Enclosure Main LP Compr 1

Assessment forms

Assessment form contains 2 sections and is aligned with Corporate V&V standards.

General Assessment

Same questions for all assessment types

1. There are NO Short Service Employees (SSE) on the crew.

☐ No ☐ Yes ☐ N/A

+ Add action

2. If there are SSEs on the crew, is their mentor on site?

☐ No ☐ Yes ☐ N/A

+ Add action

3. Were the Start Work Checks or Essentials Checklist used?

☐ No ☐ Yes ☐ N/A

In-Field Assessment

Questions specifically targeted to isolation/de-isolation

1. Workforce is able to show the location of each isolation point

☐ No ☐ Yes ☐ N/A

+ Add action

2 Blinds, skilllets, and spades used for isolation have pressure ratings equal to equipment . operating pressure

☐ No ☐ Yes ☐ N/A

+ Add action

3 Workforce is able to physically verify that isolation devices are set per diagram and/or . plan

☐ No ☐ Yes ☐ N/A

* All “No” responses require comments.



eCOW Tool

Other isolation actions



Action button

(Live)) (Isolation in Place)

Isolation Certificate - Test New UI

1 Isolation Details

Offline Approval and Execution

No

Title

Test New UI

Site

Area

General Work Team (HSE/Deck/IT/FM)

Work Location

Tank - Module 5

Equipment

Active Fire Protection (04-SYS-AGB-MV)

Required Actions

Authorize De-isolation by Isolation Authority

Possible Actions

Amend Isolation Plan by Isolation Authority

Countersignature

Move to Long Term Isolation

Reprint mechanical isolation tags

Reprint Electrical isolation tags

Reprint Exposed High Voltage Electrical isolation tags

Actions

- Action button appears on each isolation
- Required Actions and Possible Actions will vary based on the status of the isolation
 - **Required Actions** indicate an action required to move the isolation forward
 - **Possible Actions** indicate other options available

Let's review some of the available actions you will see in various statuses

Possible actions

Add a countersignature

Allows adding an additional, stand-alone signature, for any reason, if deemed appropriate

Add a file

Link or upload a file such as an external hazard analysis, isolation deviation, PID or other isolation document

Add L2HA

Starts the process of adding a Level 2 Hazard Analysis (L2HA) to the isolation

Amend isolation plan by isolation authority

Allows the isolation authority to amend or adjust the isolation plan (can only add, cannot remove)



Possible actions

Copy isolation certificate

Creates a new isolation confirmation certificate, copying key information from the existing isolation confirmation certificate such as title, site, work location, equipment, reason for isolation, isolation scheme and de-isolation scheme to streamline isolation confirmation certificate creation

Create a template from this certificate

Saves populated information such as title, site, work location, equipment, reason for isolation, isolation scheme and de-isolation scheme as a template to be used in creating other isolations – must be approved through template workflow

Delete certificate

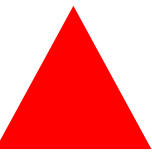
Deletes an isolation confirmation certificate (Draft status only)

Mark as not copyable

Restricts an isolation confirmation certificate from being copied to create a new isolation



Possible actions



**Reprint electrical
isolation tags**

Creates a printable electrical isolation tag

**Reprint mechanical
isolation tags**

Creates a printable process/mechanical isolation tag

**Reprint exposed high voltage
Electrical isolation tags**

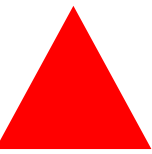
Creates a printable exposed high voltage electrical
isolation tags isolation tag

Reprint blind isolation tags

Creates a printable blind isolation tag



Possible actions



Print requested electrical isolation points

Creates a printable list of remaining electrical points, available only in “Executing” and “De-isolating” states

Print requested exposed high voltage electrical isolation points

Creates a printable list of remaining exposed high voltage electrical points, available only in “Executing” and “De-isolating” states

Print requested process / mechanical isolation points

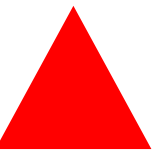
Creates a printable list of remaining process / mechanical points, available only in “Executing” and “De-isolating” states

Print requested blind isolation points

Creates a printable list of remaining blind isolation points, available only in “Executing” and “De-isolating” states



Possible actions



Amend PBU by Isolation Authority'

Allows the Isolation Authority to authorize an existing PBU to be edited or removed and allows a PBU to be added to any Process / Mechanical point

Verify Isolation Points / Blinds in Place by Isolation Verifier

Allows additional Isolation Verification signatures at any point after an isolation has been made live, this verification signature allows for “Guest” signing

Revert Isolation by Isolation Authority

Allows isolation authority to revert an isolation confirmation certificate back to the previous status in the workflow for edits or additional evaluation

Authorize Partial Permanent De-blinding by Isolation Authority

Allows isolation authority to authorize isolated points to be de-isolated and then the isolation to be returned to the “Live” state



Stand-alone action items

- A stand-alone action item can be created, allowing assignment of a task to a specific "Owner"
- Action items are not associated with a specific permit or isolation

The image displays four sequential screenshots of the Chevron Control of Work system interface, illustrating the process of creating a stand-alone action item.

Screenshot 1: Control of Work > Actions
The left sidebar menu is visible, with the 'Actions' option highlighted at the bottom. The main content area shows four action cards: 'Draft' (0 items), 'Open' (2 items), 'Verify' (1 item), and 'Search'.

Screenshot 2: Control of Work > Actions > Draft
The 'Draft' section is selected. A search bar at the top shows 'No certificates found'. A '+ Actions' button is highlighted in the bottom right corner.

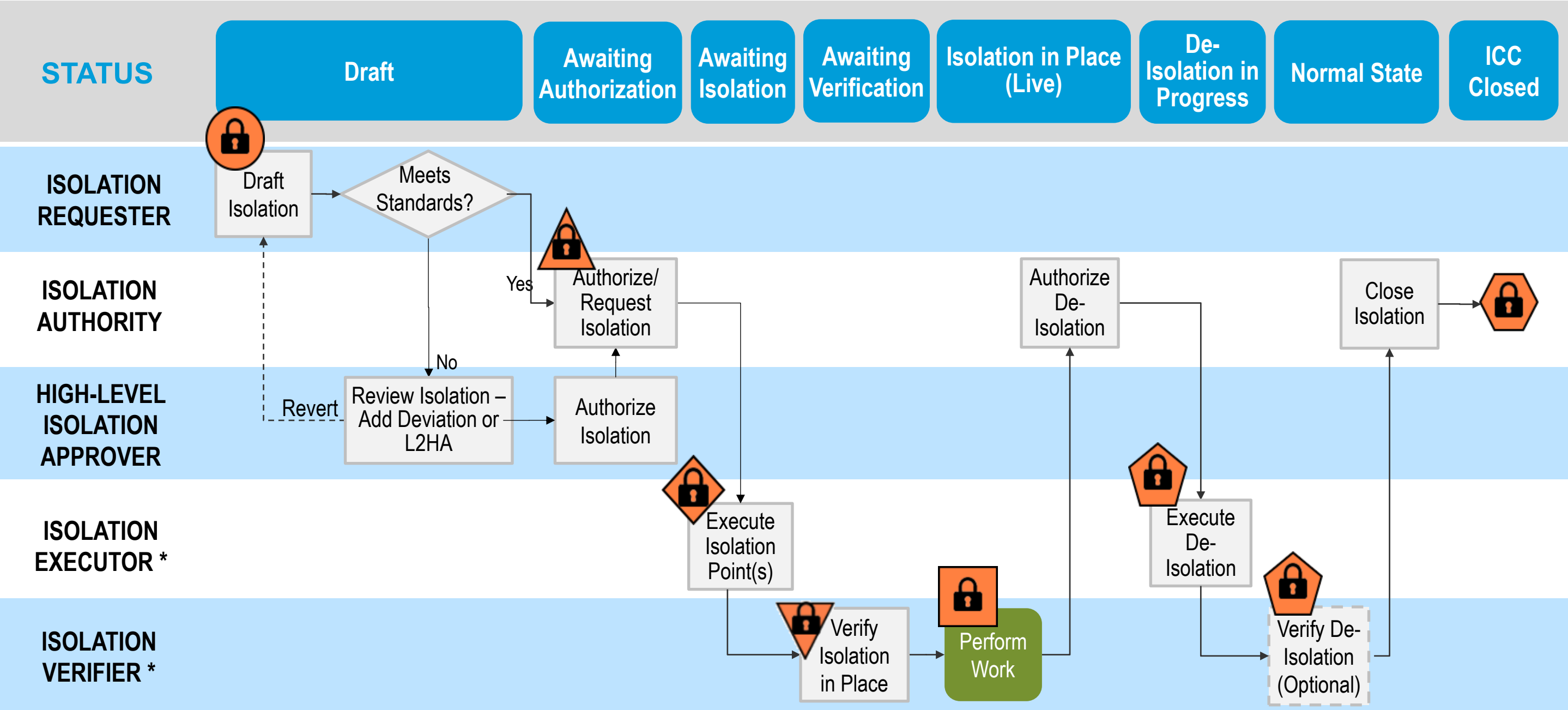
Screenshot 3: Control of Work > Actions > Draft > New Action
The 'New Action' form is displayed. It includes fields for 'Title *', 'Description *', 'Comment', 'Site *' (set to 'Agbami FPSO'), 'Owner *', and 'Due Date *' (with a date picker).

eCOW Tool

Recap and Wrap-up



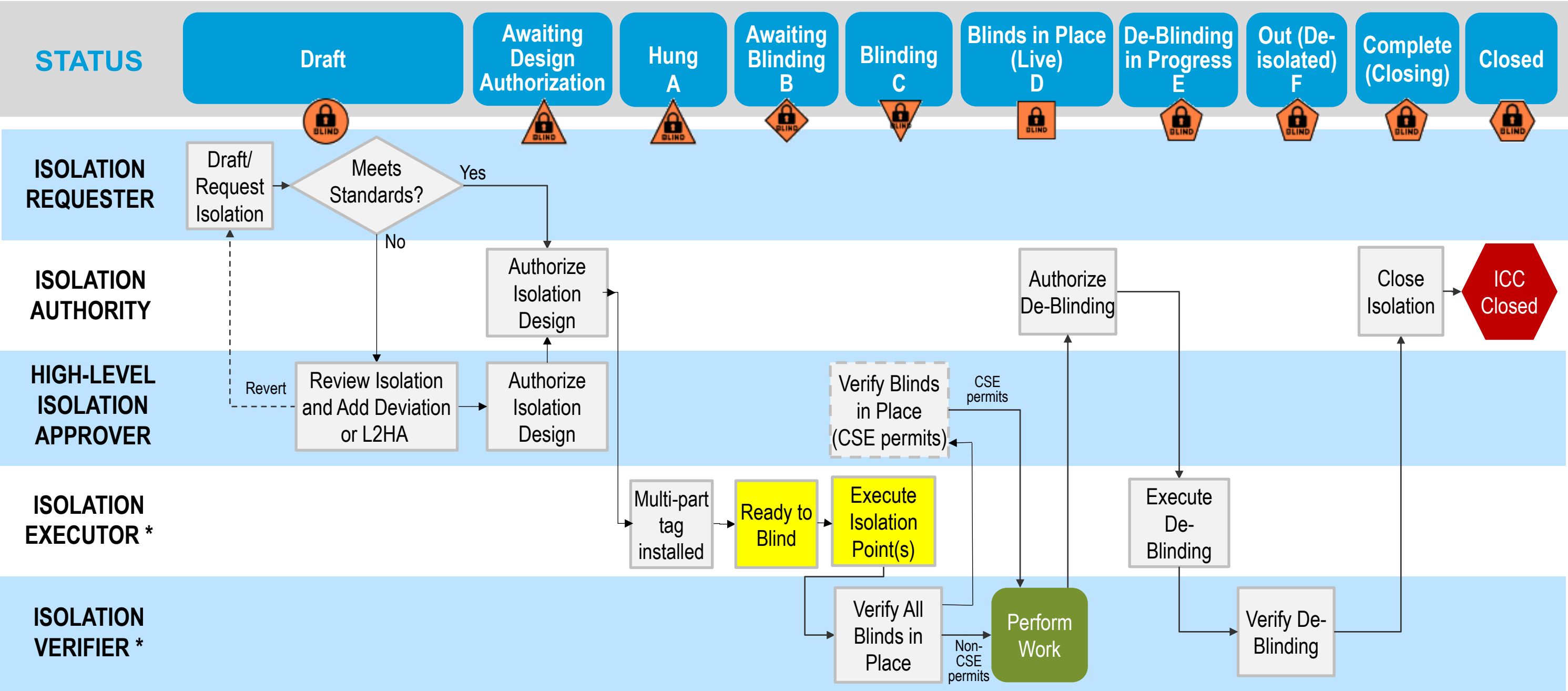
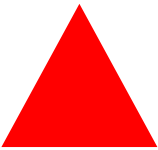
Isolation Certificate workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Blind isolation workflow



* Mutually exclusive – same person may not be Isolation Executor and Isolation Verifier



Isolation roles and responsibilities

Isolation Requester



Isolation Authority



High Level Isolation Approver



Isolation Executor



Isolation Verifier



PRIMARY RESPONSIBILITIES

- Designs isolation scheme required
- Confirms that scheme meets required standard per type

- Authorizes isolation per type
- Adds lessons learned
- Closes ICC

- Confirm L2HA or deviation addresses non-standard isolation
- Authorizes all non-standard isolation schemes

- Executes isolations and de-isolations and confirms points are isolated/de-isolated

- Verifies all points are isolated

CAN ALSO...

- Delete an ICC when in 'Draft' or 'Awaiting Authorization'

- Revert ICC to edit scheme
- Amend an ICC when 'Live' as needed
- De-isolate for test

- Revert ICC to edit scheme

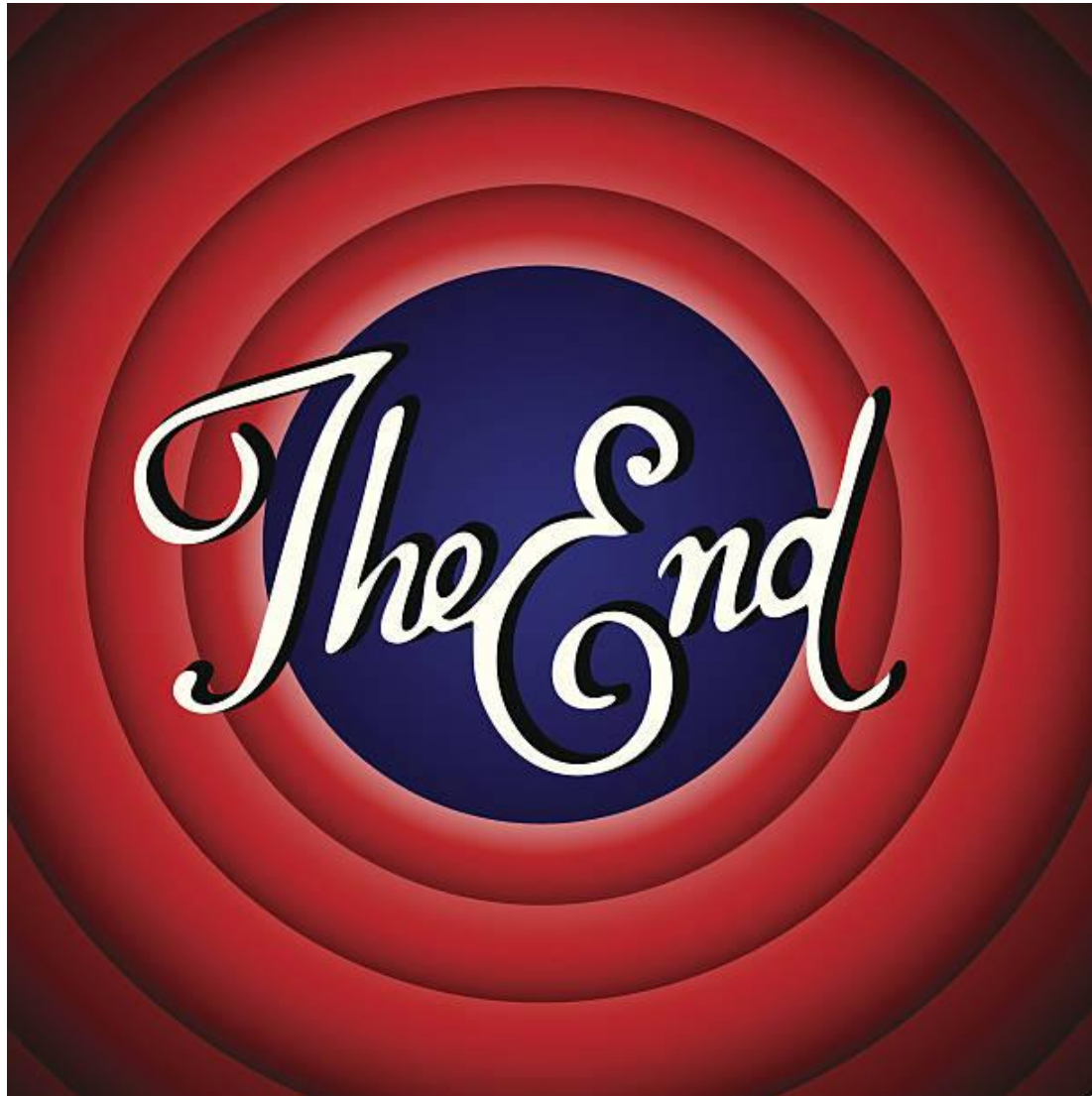


Did we meet our objectives?

- ☑ Understand how eCOW supports isolation management
- ☑ Gain awareness on isolation workflow roles
- ☑ Become familiar with isolation types and icons
- ☑ Learn isolation workflow from creation through close
- ☑ Learn how to Amend, PPD, copy and search for ICCs
- ☑ Understand de-isolation for test and long-term isolation requirements
- ☑ Understand how to create and use isolation templates



Closing



Thank you for your participation today!

- We look forward to using the tool in our site to:
 - Minimize risk and maximize safety with enhanced control of work in our site
 - Increase effectiveness and efficiency of isolation management

**In the spirit of continuous improvement,
please complete the feedback form
provided by your instructor**

