About this document

Purpose

The purpose of this document is to provide ConocoPhillips Alaska requirements in addition to the ASH for completing permit to work (PTW) activities.

Scope

The following is in scope and out of scope of these requirements.

In scope	Out of scope
PTW activities on all COPA assets	Non-operational control work on COPA assets

Authorized user

Authorized users are workers who have completed PTW training and have duties under the PTW program.

- All workers that initiate, issue, or work under permits must complete PTW training through the Alaska Safety Alliance prior to coming to work on the slope.
- Contact your Safety representative for more information or if training was not completed before coming to work on the slope.

Operational period and permit extensions

Operational Period (shift) for PTW

The operational period (shift) for PTW is a 12-hr. period:

Kuparuk	Alpine
6 to 6	Begins between 5 to 6

12-hr. periods for project or shutdown activity may be adjusted with documented Superintendent approval and communication to affected workers.

Permits in effect at daily operator change out

All permits in effect at daily operator change out require one of two options:

Joint review	Close and revalidate
• The outgoing and incoming operators jointly review the job, • The incoming operator is aware of the work, assumes responsibility for the area, and signs the permit	• Permits are closed out until the incoming operator has changed out and has inspected the affected areas, • The incoming operator then revalidates the permit or issues a new permit to the workers

NOTE: The incoming operator assumes all responsibilities and authorities for all active permits in place in their area.

Permit extensions

A permit may be extended in a production operations area if all the following have not changed since the permit was initiated:

- the work crew leader
- work scope
- work environment and associated hazards

Permit Extension Approval

Permit Extension Approval requirements:

Permit extension up to 2-hr.	Permit extension beyond 2-hr.
Issuing authority may extend without additional approval unless permit initially required additional approvers, i.e. supervisor or safety. In these instances, the additional approvers must be consulted and agree to 2-hr. extension.	Superintendent approval required. A maximum extension of 6-hr. may be approved for the operational period of the permit, not to exceed 18-hr.

Document permit extension

To document permit extension the issuing authority revalidates the time on the permit hard copy and initials the change.

If	Then
• The issuing authority cannot physically get to the work location (off pad at a remote location, pipeline ROW, etc.), **OR** • Outside the Kuparuk River boundary and cannot reach the work location in a timely manner	An extension may be delegated by the issuing authority. • Issuing authority and Initiator must have a discussion to confirm conditions at the work site have not changed • Initiator must note delegation (John Doe for Jane Smith) in the special precautions box and extend the time by marking through the original time and initialing next to the extended time • Superintendent, Supervisor, and Safety approval must be documented in the Special Precautions section of the PTW. If the Operator is delegated designee authority, then Operator must sign for the delegating authority as in the following example: John Doe for Jane Smith

Delegation of permitting responsibilities

Purpose

This section outlines the ability for NSOD unit operators/issuing authorities to delegate responsibilities under the ASH for work performed outside central processing facilities for the following permits:

- Unit work
- Hot work

Groups that may self-permit for unit and hot work under delegation

NSOD groups may self-permit for unit work and hot work under delegation from the issuing authority are:

- Non-destructive testing technicians
- Field metering technicians
- Down hole diagnostic (DHD) and production engineering technicians
- Coupon Crews

Kuparuk unit work permit delegation exceptions

Kuparuk has permit delegation exceptions for unit work permits. The issuing authority may delegate responsibilities under the ASH for the following:

- Scaffolding
- Insulation (removal, repairs, installation)
- Vibration dampener work (PVD/TVA) installation and repair
- Surveying

Process to complete permit delegation for unit and hot work

The process to complete permit delegation for unit and hot work is below:

Step	Action
1.	Technician must contact the issuing authority and provide: • Request access and describe work location • Type of work to performed • Type of permit required • Confirmation of accepting delegation responsibility
2.	Issuing authority must then confirm: • Work can proceed at the requested location • Delegation of permitting responsibility to technician
3.	After confirmation, the issuing authority must provide:
4.	Technician documents the permit delegation process (for example, John Doe for Jane Smith). The entire permit must be kept with the crew until job completion.
5.	Technician must notify issuing authority and close out permit after completing job. The last page (rigid portion) of the permit must be given to the issuing authority or left at a mutually agreeable location.

Unit work	Hot work
Issuing authority's first and last name for insertion and approval on the PTW	Supervisor's first and last name along with their first and last name for insertion and approval on the PTW

Permit is closed out and delegation is complete.

Kuparuk requirements for cross country / drillsite line lifting and line lowering

Requirements for permit delegation

Kuparuk has unit work permit delegation requirements for cross country / drillsite line lifting and line lowering.

Issuing authorities for cross country / drillsite line lifting and line lowering

Issuing authorities for cross country / drillsite line lifting and line lowering must be:

Kuparuk/Oliktok DOT Pipelines (KPL/OPL)	CPF3 Board Operator
Alpine DOT Pipelines (APL/AHF/ASW) within the Kuparuk Field	CPF2 Drillsite Operator via delegation from Alpine Board Operator
Alpine DOT Pipelines (APL/AHF/ASW) within the Alpine Field	Alpine Board Operator
Non-DOT lines	Drillsite Operator

Cross country / drillsite line lifting and line lowering

Cross country / drillsite line lifting and line lowering has the following requirements for permitting:

All Line Lifting and Lowering	All line lifting and lowering requires a permit discussion between operations and line lift crew that must include: • **Contact** the applicable board operator to determine line pressure immediately prior to movement of any line. The board operator must confirm the ability to maintain pipeline pressure, below the max pressure allowed during the lift, throughout the duration of pipeline movement **WARNING:** Always contact board operator prior to movement of any line. • **Confirm** no pigging will occur within any of the pipelines in the pipe rack that includes the line to be lifted, until the line lift or line lowering step is completed and the line stabilized in place with cribbing or equivalent means other than the lift jack. Once the line is stabilized then pigging operations may occur • **Identify** slugging hazards for all pipelines within the pipe rack • **Verify** In-Service Pipe Lifting Program requirements have been met • **Agree** to a plan that provides timely communication between the board operator and the line lift crew in an emergency Permit close out: • **Notify** issuing authority and close out permit after completing job • **Give** the last page (rigid portion) of the permit to the issuing authority or leave at a mutually agreeable location
Lifting the line	Unit Work Permits must be granted by the issuing authority without exception. This must occur via a face-to-face meeting
Lowering the line	Permit authority for Unit Work Permits may be delegated if the post-inspection and refurbishment (no repairs required or performed) condition of the line is no worse than the condition assumed at the time the line was lifted. This delegation of authority does not apply if line pressure management is required to lower the line

Hot work requirements

Mobile phones and tablets in classified areas

Mobile phones and tablets may be used in classified areas without a hot work permit if the following requirements are met. All other mobile accessories such as air pods, speakers, or smart watches are out of scope and require a hot work permit. See accompanying Supervisor Rollout for more information.

If	Then
Mobile phone or tablet meets the following criteria: • In good working order • No removable battery or internal fan mechanism • Be inside a protective case that protects the sides, screen edge, and back from a fall. The device must be in the case the entire time it is used in a classified area • External ports on the device cannot be utilized in the classified area	Device may be used in classified area.

NOTE: For Standards Adaptation Request and supporting documentation visit engineering management system.

High energy hot work

High energy hot work is work involving:

- Welding
- Torch cutting
- Arc gouging
- Stress relieving
- Grinding (does NOT include buffing, sanding, or polishing)
- Any other hot work producing a similar source of ignition

High energy hot work in permit required areas

Plan and schedule work to avoid whenever feasible

Plan and schedule work to avoid high energy hot work inside of a building, modules, or wellhouse whenever feasible.

Avoid hot work by using alternative methods	bolt up, air drill/cut, etc. to complete the work instead.
Remove	equipment from the classified area, then perform hot work.
Postpone	work until the area can be isolated, cleaned, and purged.

NOTE: Any high energy hot work inside of a building, module, or wellhouse requires consultation with Operations during the planning process.

When high energy hot work must be performed in permit required areas within a building, module, or wellhouse

When high energy hot work must be performed in permit required areas within a building, module, or wellhouse:

Approval and notification	• The Issuing Authority must obtain approval from Ops Supervisor • Ops Supervisor must obtain approval from Ops Supt • Ops Supt must notify the Operations Manager when available
Document	all special precautions in section 4 of the Hot Work permit
Initiator and issuing authority must	• **Discuss** all potential hazards and mitigation measures to be taken with issuing authority (ops) and workers • **Conduct** pre-job survey for leaks • **Implement** job specific spark containment methods • **Review** job specific contingency plan • **Conduct** post-job survey for hot spots or flames

Mobile Equipment Hot Work

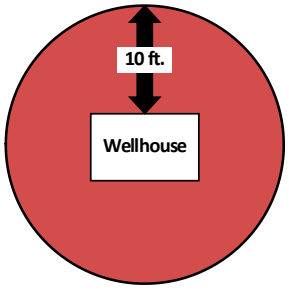
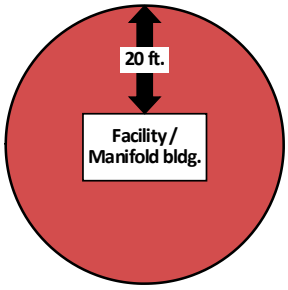
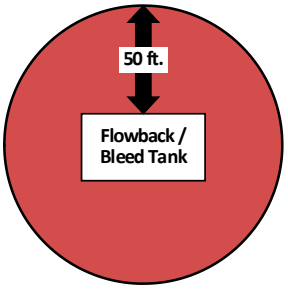
In Scope / Out of scope

The scope of this requirement covers the following:

In Scope	Out of Scope
• COPA minimum boundaries exceed the ASH • Operating mobile equipment within Hot Work Permit minimum boundaries	• Mobile equipment specifically exempted by the ASH in the Hot Work Standard • Operating mobile equipment outside of minimum boundaries

Minimum distance requirements for mobile equipment hot work

A Hot Work permit is required for mobile equipment operating within the following boundaries:

Wellhouse	Production facility or manifold building	Temporary flowback or hydrocarbon bleed tank
10 ft	20 ft	50 ft
		

Well head and cellar Hot Work

Well head/cellar and trouble well requirements

These requirements cover high energy hot work in or above well cellars. Trouble wells require a written job-specific procedure for each job.

Permitting in well cellars

Each well cellar must have its own Hot Work permit.

Clean the well head

Clean the well head as needed before hot work to remove hydrocarbons. **Remove** contaminated cellar gravel.

Atmospheric testing

Prior to using heaters/air movers issuing authority must conduct atmospheric testing of the entire well area:

If		Then
LEL is 0%		• **Start** heaters / air movers and • **Proceed** with job
LEL is greater than 0% but less than 20%		• **Start** heaters / air movers, then • **Re-test** LEL
After re-test:	LEL is 0%	• **Proceed** with job
	LEL is greater than 0%	• **Suspend** activity and • **Contact** COPA Safety to evaluate mitigations
LEL is greater than 20% without using heaters / air movers		• **Suspend** activity and • **Contact** COPA Safety to evaluate mitigations

Heaters/air movers must remain in operation and fire watch must be present for a minimum of 30 minutes after completion of hot work.

Additional precautions before issuing Hot Work permit

Issuing authority must review additional precautions before issuing the Hot Work permit:

- **Consider** the need for fire blankets
- **Establish** a designated fire watch
- **Ensure** fire extinguisher(s) on site
- **Verify** ventilation in well cellar is adequate
- **Confirm** communication (radio, cell phone, etc.) is available in the event of a scope change and/or additional gas testing is needed
- **Hold** a pre-job safety meeting at job site

Vertical support member (VSM) hot work

High energy hot work on or near a VSM

These requirements cover performing high energy hot work on or within 35 feet of a VSM.

In Scope	Out of Scope
VSM's that are: • Open to atmosphere, or • Capped but will later be opened to atmosphere	VSM's that are capped and will not be open to atmosphere during the hot work activity

Atmospheric testing

Before work begins the issuing authority must conduct atmospheric testing.

If	Then
VSM is not capped and open to atmosphere	**Follow** atmospheric testing steps listed in sampling internal VSM section below
VSM is capped and will later be open to the atmosphere	**Create** a small sampling point with an intrinsically safe tool for down hole gas testing

Sampling internal VSM

Once the internal volume of the VSM is accessible for the sample probe, follow these steps:

1. **Determine** ability to sample full VSM depth.

If	Then
Able to sample full VSM depth	• **Insert** a weighted length of flexible tubing connected to the gas detector into the VSM • **Stop** every 10 feet of depth for at least 2 seconds per foot of total tubing length
Unable to sample the full VSM depth	• **Introduce** an inert gas into the VSM • **Verify** the oxygen content is less than 5% • **Cold cut** the VSM

NOTE: If fluid is known / suspected to be at bottom of VSM, consider adding a water dropout in-line with sample tubing to prevent fluid entering gas detector pump.

2. **Sample** LEL content.

If	Then
LEL is 10% or below	**Continue** with job
LEL is greater than 10%	• **Purge** until less than 10% LEL, then • **Re-test** LEL
<10% LEL cannot be achieved	• **Cold cut** the VSM or • **Suspend** activity and • **Contact** COPA Safety for guidance

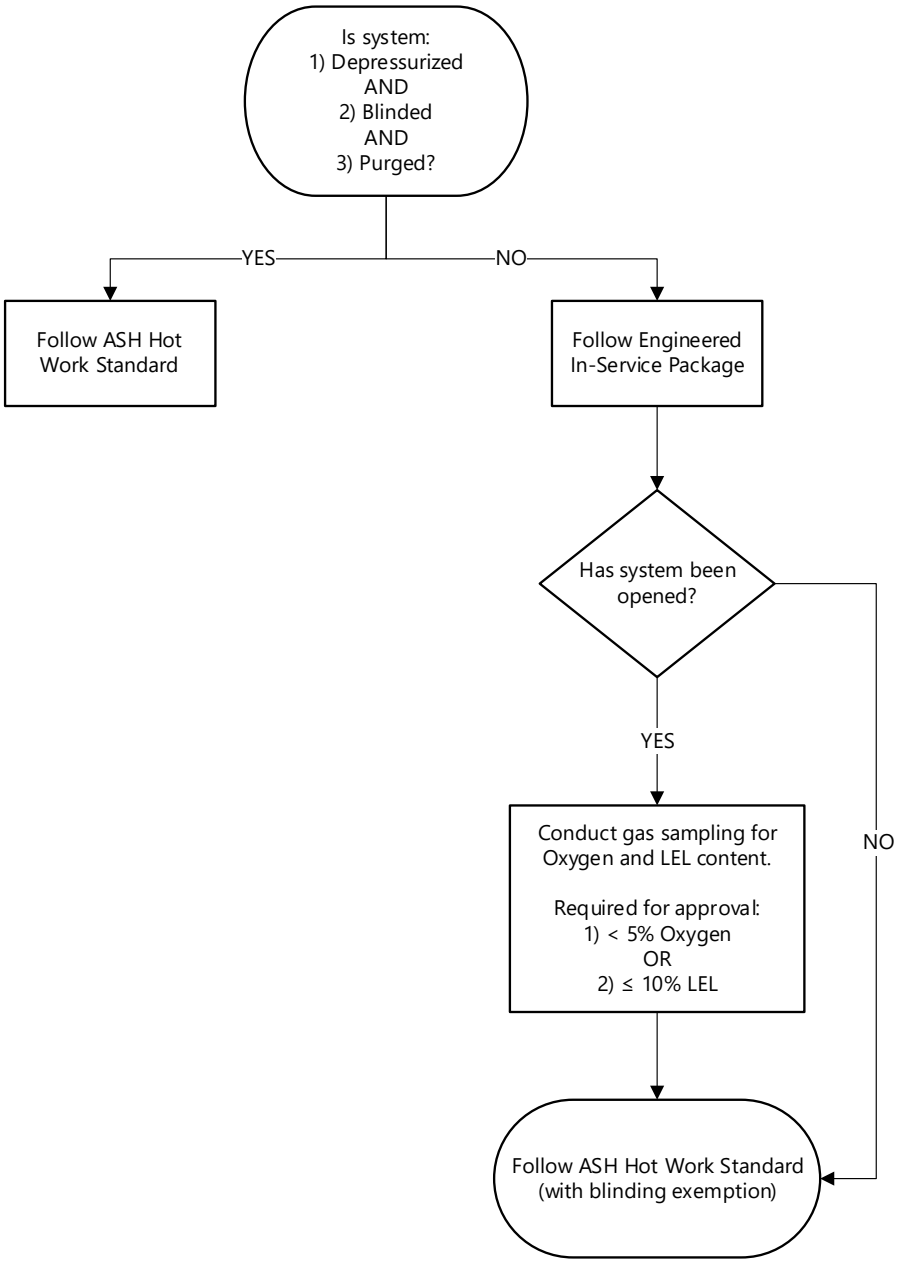
3. **Sample** CO content.

CO over 500 ppm	CO below 500 PPM
Inert the VSM or **ventilate** until the level reduces below 500 ppm	**Continue** with job

Sampling the VSM is complete.

In-service welding

When an in-service package is required



In-service welding on depressurized equipment

In-service welding on depressurized equipment must comply with the ASH Hot Work Standard.

Confined space entry requirements

Evaluate area and mark confined spaces

Evaluate each facility for confined spaces. Label each confined space with a sign containing:

DANGER — PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER

Spaces that require a tool to access are not required to be labeled until they are open. After opening, post a **DO NOT ENTER** sign at the opening.

Double block and bleed system as a means of isolation

Double block and bleed shall only be used as a last resort when no other isolation means are possible. Disconnecting/misaligning/blinding are the primary isolation methods. The use of double block and bleed as an isolation method requires an ASH variance and must meet both conditions below:

- ambient air temperature at point of isolation greater than 32° F
- temperature of product in the line at the point of isolation greater than 32° F

Atmospheric monitoring

Atmospheric monitoring must be performed utilizing direct reading instrumentation in the following order:

Acceptable levels for entry into all confined spaces	
Oxygen (O_2)	19.5% to 23.5%
Flammability (LEL)	Less than 10%
H_2S	Less than 10 ppm
Carbon Monoxide (CO)	Less than 25 ppm
Benzene	Less than 0.25 ppm
NORM	Less than 50 µR/hr
Temperature	Less than 110° F

Initial atmospheric monitoring must be conducted without mechanical ventilation.

Atmospheric monitoring results outside acceptable levels for entry

For atmospheric monitoring results outside the acceptable levels for entry:

- Safety Specialist must evaluate results to determine appropriate controls
- PPE and other controls used must be documented on the Regulated / Non-Regulated Confined Space Entry permit

When a written ventilation plan for is required

Pre-job planning may determine that a written ventilation plan is required based on scope of work. Examples:

- During shutdowns / projects when multiple contractors will be working in a confined space
- To avoid vessel damage via differential pressure

NOTE: Multiple ventilation plans may need to be developed for each job scope based on the tasks that are being performed.

Written ventilation plan requirements

When a written plan for mechanical ventilation is required:

Written ventilation plan	Must be reviewed and approved by all: • Safety Specialist • COPA Industrial Hygienist • NS HSE Supervisor • Facility Engineer

De-brief after confined space entry

De-brief after confined space entry and capture any findings.

Meeting attendees	At a minimum, entrants and issuing authority. Entry Supervisor as needed
Capture findings	Capture any findings that require action in asset approved database (Intelex)

Contractor confined space entry programs

Contractor confined space entry programs may be used based upon:

Entry location	Not conducted within Company structures such as flow stations, gathering centers, processing centers, drillsite/pad manifold buildings, gas plants, etc.
Persons entering confined space	COPA employees will not be entering the confined space
Specific conditions and written concurrence	• Written concurrence between contractor, Company Supervisor responsible for getting the work done, and Company Supervisor responsible for the area, is signed prior to the start of the job • Contractor confined space entry program meets or exceeds the requirements set forth by 29 CFR 1910.146. This certification must be included in the written concurrence document • Written concurrence may be documented with a written delegation of authority or in the contractor bridging process

Contractor companies approved to issue confined space permits

The following contractor companies are approved to issue confined space entry permits under the conditions listed in the written concurrence:

Non-Regulated Confined Space	Regulated Confined Space
• ASRC Energy Services Alaska, Inc • Mistras • Schlumberger / M-I SWACO	• ASRC Energy Services Alaska, Inc

NOTE: Only qualified contractor safety personnel shall issue confined space entry permits.

Permit to work (PTW) auditing

Requirements for Operations

To facilitate the PTW audit program, Operations must:

Daily	Monthly	As needed

• **Turn in** all closed permits to Drillsite or Facility Lead Tech for review	Drillsite/Facility Lead or designee must:
	• **Review** a random sample of submitted permits for completeness. Sample must include the following permits:
	  ○ Alpine: Work Activity Notifications (WANs)
	  ○ Kuparuk: self-permitted permits (Unit & Hot Work)
	• **Ensure** all reviewed permits are submitted to Safety Specialist
		• **Review** any deficient permit with the approver and/or workforce during the next safety/tailgate meeting
		• **Notify** Ops Supervisor and Safety Specialist of any system weaknesses and address

Requirements for Safety Specialists

To facilitate the PTW audit program, Safety Specialists must:

Monthly	Annually	As needed

• **Audit:**
  ○ 100% of Regulated Confined Space Entry permits
  ○ 10% of Hot Work permits
• **Document** audit completion and deficiencies on the PTW Audit PowerApp
	• **Conduct** annual confined space program review using completed Regulated Confined Space Entry permits from each facility
	• **Document** completion of annual confined space program review in Intelex.
		• **Review** deficient permits with the approver and/or workforce
		• **Notify** Ops Supervisor of any system weaknesses and address
		• **Review** systemic deficiencies with HSE staff

NOTE: Alpine Work Activity Notifications (WANs) are exempt from the Safety Specialist PTW audit process.

Permit retention

Permits must be retained as follows:

Regulated Confined Space permits	All other work permits
Until annual confined space program review	Current and previous month