Appendix 1: Application and Burn Plan

In Situ Burning Guidelines for Alaska

Incident Name: _____

Incident Location: _____

Incident Date: _____

Incident Time: _____

Date Prepared		Operational Period	
		Date	Time
Time Prepared	Start:		
	End:		

Title of Applicant: _____ Address: _____

Affiliation: _____ Phone: _____ Fax: _____

PART 1

Potential Burn Location _____

Site Description _____

Latitude _____

Longitude _____

Type of Incident (check one):

_____ Grounding

_____ Transfer Operations

_____ Explosion

_____ Collision

_____ Blowout

_____ Other_____

Product Released (check one):

_____ North Slope Crude

_____ Cook Inlet Crude

_____ Residual/Bunker Oil

_____ Diesel #2

_____ JP4

_____ Other_____

Estimated Volume of Released Product:

_____ gallons, or

_____ BBL

Estimated Volume of Product That May Potentially be Released:

_____ gallons, or

_____ BBL

Release Status (check one):

_____ Continuous

_____ Intermittent

_____ One time only, now stopped

If Continuous or Intermittent, estimated Rate of Release:

_____ gallons, or

_____ BBL

Estimated Surface Area Covered (square miles)
At Time of Application _____

If inland, identify/describe:.

- Vegetative cover at burn site (e.g., wetlands, grasslands, shrublands, forest, tundra, non-vegetated)
- Fire danger rating at and near the burn site (see Appendix 6) Whether burn is on permafrost
- Any ignitable vegetation near the burn
- Any structures/buildings near the burn

Why is mechanical recovery alone **inadequate** for spill response?

_____

Consider the spill size, forecasted weather and trajectories, amount of available equipment, time to deploy, and time to recover.

_____

Will you use mechanical recovery in conjunction with in situ burning? yes no

Have you evaluated dispersants? yes no

Will you use dispersants in conjunction with in situ burning? yes no

Why is in situ burning preferred?

PART 2

Did source burn? yes no

Is source still burning? yes no

Is product easily emulsified? yes no

Is product already emulsified? (check one)

_____ No
_____ Light emulsion (0-20%)
_____ Moderate emulsion (21-50%)
_____ Heavy emulsion (>50%)
_____ Unknown

Estimated Percent Oil Naturally Dispersed and Evaporated Within First 24 Hours:_____

Check boxes and enter wind values in the following table:

	Current Conditions	12-hour Forecast	24-hour Forecast
Clear			
Partly cloudy			
Overcast			
Rain			
Snow			
Fog			
Wind Speed (kt)			
Wind Direction (from)			

Percentage Ice Coverage (check one):

_____ No ice present
_____ <10%
_____ 11-30%
_____ 31-50%
_____ 51-100%

Tidal state at _____o'clock (check one):

_____ Slack tide
_____ Incoming (flood)
_____ Outgoing (ebb)

✓ **Attach a graph** with tidal information for three tidal cycles.

Dominant current (not drift):

Speed (knots)_____

Direction (to)_____

Current Speed (knots) Relative to the Containment Boom _____

Note: Current speed relative to the fire boom should be .75 knots or less to minimize entrainment.

Sea State (check one):

_____ Calm
_____ Choppy
_____ Swell

Waves (estimate height in feet)_____

Does your site safety plan cover this in situ burn plan? yes no

Will response workers be briefed on the site safety plan before burning? yes no

Are the responders trained and equipped with safety gear? yes no

✓ **Attach an ICS 204 form, or similar document**. On it, list the following equipment you will use:

Vessels

Aircraft for ignition and aerial observation

Lengths of fire boom

Residue containment and removal equipment

Fire fighting equipment

Ignition systems

Burn promoters

Communications systems

Air/plume monitoring equipment.

Proposed Burn Date and Time _____

Describe how you intend to carry out the burn.

Check one:

_____ Ignition is away from source after containment and movement of the oil to safe location (i.e., controlled burn).

_____ Ignition of uncontained slick(s) is at a safe distance from the source.

_____ Ignition is at or near source without controls.

How will you ignite the oil?_____

Enter the volume of oil you expect to burn:

Fire No.	Oil Volume (BBL__ or Gal__)	Fire Duration (Hrs__ or Min__)
1		
2		
3		
4		
5		
Attach a list for more fires.		
Total Vol.:	0	

How many simultaneous burns are planned?

What distance will separate simultaneous burns?

Are you planning sequential or repeat (not simultaneous) burns? yes no

Estimated area of oil in uncontrolled burn (square feet) _____

Describe your ability and procedures to extinguish the burn if necessary or directed to do so.

PART 3

✓ **Attach a chart with a distance scale**. Show estimated spill trajectory and landfalls, with time. Show the location and distance of your proposed burns relative to the following features:

1. Source:

Location _____

Distance from Burn (miles)_____

2. Ignitable slicks:

Location _____

Distance from Burn (miles)_____

3. Nearest Land (burns on water) or Non-Flat Terrain (burns on land):

Location _____

Distance from burn (miles) _____

Nearby Populated Areas (i.e., one or more non-spill-related people present):

Location _____

Distance from Burn (miles)_____

Location _____

Distance from Burn (miles)_____

Location _____

Distance from Burn (miles)_____

Location _____

Distance from Burn (miles)_____

For Inland Burns consider

- Ignitable vegetation
- Structures/buildings
- Areas with Fire Danger Rating of extreme, very high, or high
- Nearest airport
- Alaska Class I Area (see Appendix 4)

4. Attach a drawing showing your mechanical recovery and in situ burning equipment configurations.
5. For burns potentially impacting populated areas, provide an air monitoring plan in accordance with the SMART protocols.
6. Identify whether any Class 1 Areas (Appendix 4) will be impacted.

PART 4

How do you plan to collect burned oil residue?

How do you plan to store and dispose of burned oil residue?

For inland burns, how do you plan to address post- burn erosion if applicable?

Describe plan for eliminating risk (if any) of accidental (secondary) fires (e.g., structures/buildings and/or vegetation).

Will the burn affect visibility at downwind airports within 20 miles?

Signatures

Signature of Applicant

Printed name of Applicant

Date and Time Submitted to Federal and State On-Scene Coordinators

Prepared by: _____ ICS Position: _____

Phone: _____

Appendix 2: FOSC/SOSC Review Checklist In Situ Burning Guidelines for Alaska

Note: If an *in situ* burn is being considered, immediately notify the EPA ARRT representative (unless EPA is the FOSC), the DOI and DOC ARRT representatives, and the USCG Strike Team to provide advance notice of this possibility.

STEP 1: Review of the completed Application to Burn Plan

Is burning an appropriate response option, when considering mechanical containment and recovery and/or dispersant use?	yes	no

STEP 2: Determine feasibility of burning

Will the oil become 2 to 3 mm thick?	yes	no
Is the oil relatively fresh (less than 2 or 3 days of exposure)?	yes	no
Does the oil contain less than 25 percent water?	yes	no
Is visibility sufficient to see oil and vessels towing boom, and suitable for aerial overflight for burn observation?	yes	no
If burning may involve darkness or poor visibility, can the burn be completed safely and well away from any populated areas or other sensitive resources?	yes	no
Is wind less than 20 knots?	yes	no
Are currents less than 0.75 knots relative to the boom?	yes	no
Are waves less than 3 feet in choppy, wind-driven seas or less than 5 to 6 feet in large swells?	yes	no
Does the responsible party have a site safety plan for this incident that specifically addresses the proposed burning operations?	yes	no
Will response workers be briefed on this plan before burning starts?	yes	no
Are personnel trained and equipped with safety gear?	yes	no
Is a communications system available and working to communicate with and between aircraft, vessels, and control base?	yes	no
Are operational and environmental conditions feasible for burning?	yes	no
Can the fire be extinguished and are the procedures for addressing this contingency adequate?	yes	no
Will the burn meet the operational criteria for: the next 24 hours?	yes	no
the next 48 hours?	yes	no

STEP 3: Determine whether burn may be conducted at a safe distance from populated areas.

Burning Near Unpopulated Areas:

To help determine whether an area that could be affected by an in situ burn smoke plume is unpopulated, the Unified Command will consult with land managers and (to the extent practical) land owners of the area to help determine whether there may be individuals using the area for activities including, but not limited to, fishing, hunting, berry picking, boating, backpacking, or conducting research. The Unified Command may require further verification by aerial reconnaissance or some similar means.

Will the smoke plume pass into populated areas?	yes	no

If no, proceed to Step 4. If yes, consider the following conditions of authorization.

APPENDIX 2: FOSC/SOSC REVIEW CHECKLIST
In Situ Burning Guidelines for Alaska

Burning in Flat Terrain Near Populated Areas:

Is the burn in an area near or adjacent to populated areas? yes no

Are local government, land managers, land owners, and/or state emergency service personnel involved in planning for, and if necessary assisting with, public notifications? yes no

On water more than 3 miles from shore, the Green Zone safe distance is 1 mile from populated areas. On land or on water less than 3 miles from shore, the green zone safe distance is 3 miles from populated areas. Burning at a green zone safe distance from populated areas is acceptable. Proceed to Step 4.

The Yellow Zone distance is from 1 to 3 miles downwind of a burn, and within 45 degrees of the smoke plume, when the burn is on land or on water within 3 miles of shore. If the potentially-impacted population can be sheltered in place or evacuated during the burn, proceed to Step 4. If potentially-impacted populated areas cannot be protected, do not authorize burning at this time.

The Red Zone distance is within 1 mile of any burn. Burns within 1 mile of populated areas may be authorized if the potentially-impacted population can be sheltered in place or evacuated during the burn, and if best professional judgment supports the expectation of $PM_{2.5}$ less than 65 micrograms per cubic meter 1-hour average in populated areas. If these conditions can be met, proceed to Step 4. If these conditions cannot be met, do not authorize burning at this time.

Burning when the Safe Distance Is Not Predicted:

The Unified Command determines whether flat terrain exists through the use of topographic maps and on-scene weather information, and input, as appropriate, from the National Weather Service and the Alaska Interagency Coordination Center.

According to best professional judgment, will $PM_{2.5}$ concentrations remain below 65 micrograms per cubic meter 1-hour average in populated areas? yes no

If yes, proceed to Step 4. If no, do not authorize burning at this time.

Notifications and Warnings:

Is it possible to implement Level 1 general notification in the Green Zone? yes no

Is it possible to implement a Level 2 alert notification in the Yellow Zone? yes no

Is it possible to implement a Level 3 warning notification, which includes in-place sheltering? yes no

Is it possible to implement a Level 4 emergency notification, which includes temporary evacuation? yes no

STEP 4: Determine whether environmental and other considerations will be adequately addressed.

Have potentially-affected natural resources and historic properties been identified and adequately addressed?	yes	no	
If no, document rationale in decision memo.			
Have potentially-affected other considerations (e.g., structures/buildings) been identified and adequately addressed?	yes	no	
If no, document rationale in decision memo.			

STEP 5: Review of consultations and requests for authorization.

NCP Authorization of Use

Concurrence Required:

EPA (FOSC or EPA ARRT representative)	yes	no	conditional
State (SOSC in Unified Command)	yes	no	conditional

Consultation as per the NCP (If other than yes, document how addressed)

DOI ARRT Representative	yes	no	conditional
DOC ARRT Representative	yes	no	conditional

Other Consultations with Representatives of Potentially Affected Stakeholders:

Other State and/or Federal natural resource trustees	yes	no	conditional
• Federally-recognized tribes	yes	no	conditional
• Federal, State, and/or local safety and public health agencies	yes	no	conditional
• Land Owners:			
➢ Local (e.g. borough, municipal governments	yes	no	conditional
➢ Private Land owners (e.g. Native corporations)	yes	no	conditional
• Others (e.g., Regional Citizens Advisory Councils, Port Authorities, Area safety/security committees, law enforcement, etc.)	yes	no	conditional
• For a burn that may affect threatened and/or endangered species and/or their critical habitat, DOI-Fish and Wildlife Service* and/or National Marine Fisheries Service ESA Specialists*	yes	no	conditional
• For a burn that may affect historic properties, the FOSC's Historic Properties Specialist.	yes	no	conditional
• For a burn proposed in conjunction with an Outer Continental Shelf Facility, the DOI-MMS Regional Supervisor for Field Operations*	yes	no	conditional

STEP 6. Make decision on whether to authorize burn.

Authorization and Conditions:

The on-scene coordinators' decision based on review (check one):

____ Do not conduct in situ burning.

____ In situ burning may be conducted in limited or selected areas (see attached chart).

____ In situ burning may be conducted over the limited period of ____ day(s).

____ In situ burning may be conducted as requested in the application.

____ Other, as specified: _____

Conditions:

1. The burn operations team will visually monitor the smoke plume in accordance with the monitoring plan.
2. The burn operations team will collect the burn residue in accordance with the burn plan.
3. Public notification/warning to people in populated areas who may be in proximity to any of the three safe distance zones in accordance with the notification.
4. Other incident-specific conditions of authorization (e.g., air monitoring in accordance with the SMART protocols) for a burn with the potential to impact populated areas:

_____ Signature of Federal On-Scene Coordinator	_____ Printed Name of Federal On-Scene Coordinator	_____ Date and Time
_____ Signature of State On-Scene Coordinator	_____ Printed Name of State On-Scene Coordinator	_____ Date and Time

Prepared By: _____ ICS Position: _____ Phone: _____