

**APPLICATION AND BURN PLAN
In Situ Burning Guidelines for Alaska**

Incident Name: _____ Incident Location: _____ Incident Date: _____ Incident Time: _____	<u>Date Prepared</u>		Operational Period	
			Date	Time
	<u>Time Prepared</u>	Start:		
		End:		
Title of Applicant: _____		Address: _____		
Affiliation: _____		Phone: _____	Fax: _____	

STEP 1

Site 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
- _____ Chevron Residual
- _____ 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, Rate of Release:

_____ gallons, or
 _____ BBL

Estimated Water Surface Covered (square miles)

Why is mechanical recovery alone inadequate to control the spill? 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? _____

**APPLICATION AND BURN PLAN
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Describe the risk of accidental (secondary) fire.

How much will your burn impair visibility at airports?

How far is your proposed burn from the nearest Class I airshed?¹ _____

¹ Class I airsheds in Alaska:

- Denali National Park and Preserve
 - Bering Sea National Wildlife Refuge National Wilderness Area
 - Simeonof National Wildlife Refuge National Wilderness Area
 - Tuxedni National Wildlife Refuge National Wilderness Area (this area lies adjacent to Cook Inlet)
- Special protection of visibility is also designated in the following areas
- Mt. Deborah and the Alaska Range East viewed from the Savage River Campground area
 - Mt. McKinley, Alaska Range, and Interior Lowlands viewed from Wonder Lake

Signatures

Signature of Applicant

Printed name of Applicant

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

Prepared By: _____ ICS Position: _____ Phone: _____

ON-SCENE COORDINATORS' REVIEW CHECKLIST In Situ Burning Guidelines for Alaska		
STEP 1		
Is mechanical containment and recovery alone insufficient or unfeasible?	yes	no
STEP 2		
Will the oil become 2 to 3 mm thick?	yes	no
Is the oil fresh (less than 2 or 3 days of exposure)?	yes	no
Is the oil emulsified by less than 25 percent?	yes	no
Is visibility sufficient to see oil and vessels towing boom, and suitable for aerial overflight for burn observation?	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 5.7 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 aircraft, vessels, and control base?	yes	no
Are operational and environmental conditions feasible for burning?	yes	no
For burns not in broken ice, can the responder extinguish the fire?	yes	no
Will the burn meet the operational criteria for:		
the next 24 hours?	yes	no
the next 48 hours?	yes	no
STEP 3		
Burning Near Unpopulated Areas:		
Will the smoke pass into populated areas?	yes	no
If no, proceed to Step 4. If yes, consider the following conditions of authorization.		

**APPLICATION AND BURN PLAN
In Situ Burning Guidelines for Alaska**

Incident Name: <u>F/V Cook Inlet oil spill</u>	Date Prepared <u>4/19/05</u>		Operational Period	
Incident Location: <u>Kennedy Entrance, Cook Inlet- Perl Rock on south side of Perl Island</u>		Date	Time	
Incident Date: <u>4/15/05</u>	Time Prepared	Start:	<u>4/20/05</u>	<u>0930</u>
Incident Time: <u>0830</u>	<u>1300</u>	End:	<u>4/20/05</u>	<u>1400</u>
Title of Applicant: <u>Incident Commander</u>	Address: <u>54741 Tesoro Rd Kenai, AK 99611</u>			
Affiliation: <u>RP- Tesoro Alaska Company</u>	Phone: <u>(907) 776-3569</u>		Fax: <u>(907) 776-3812</u>	

STEP 1

Site Location Perl Rock, Cook Inlet
 Site Description South side of Perl Island, Kennedy Entrance
 Latitude 59 06'N
 Longitude 151 41'W

Type of Incident (check one):

- Grounding
- Transfer Operations
- Explosion
- Collision
- Blowout
- Other _____

Product Released (check one):

- North Slope Crude
- Cook Inlet Crude
- Chevron Residual
- Diesel #2
- JP4
- Other _____

Estimated Volume of Released Product:

380,000 gallons, or
BBL

Estimated Volume of Product That May Potentially be Released:

380,000 gallons, or
BBL

Release Status (check one):

- Continuous
- Intermittent
- One time only, now stopped

If Continuous or Intermittent, Rate of Release:

3958/ hour gallons, or
BBL

Estimated Water Surface Covered (square miles)

20 square miles

Why is mechanical recovery alone inadequate to control the spill? Consider the spill size, forecasted weather and trajectories, amount of available equipment, time to deploy, and time to recover.

rate of release is extreme; predicted weather is calm and damp, but time to deploy and recover is insufficient for amount lost.

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?

conditions are favorable for it and would be the most effective for extricating the oil out of the environment.

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STEP 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Partly cloudy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overcast	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Snow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fog	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind Speed (kt)	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>
Wind Direction (from)	<input type="text" value="NE"/>	<input type="text" value="NE"/>	<input type="text" value="NE"/>

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

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 equipment
- Fire fighting equipment
- Ignition systems
- Burn promoters
- Communications systems

Proposed Burn Date and Time

**APPLICATION AND BURN PLAN
In Situ Burning Guidelines for Alaska**

Describe how you intend to carry out the burn.

2 boats will contain oil in separate boom 2 miles apart from each other. Oil will be ignited with a propane burner from the surface, and extinguished by pulling towing boom faster.

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?

From water surface with propane burner

Enter the volume of oil you expect to burn:

Fire No.	Oil Volume (BBL__ or Gal__)	Fire Duration (Hrs__ or Min__)
1	95000 bbl	3 hours
2	95000 bbl	3 hours
3		
4		
5		
Attach a list for more fires.		
Total Vol.:	190,000	

How many simultaneous burns are planned?

2

What distance will separate simultaneous burns?

2 miles

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

Estimated area of oil in uncontrolled burn

(square feet) 0

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

Oil fire can easily be extinguished by releasing one end of boom, or towing boom faster.

Step 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 Perl Rock

Distance from Burn (miles) 1.5 mile

2. Ignitable slicks:

Location NE of source

Distance from Burn (miles) 0-3 miles

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

Location Perl Island

Distance from burn (miles) 1-3 miles

4. Nearby Human Populations and Human Use Areas (names of towns, etc.):

Location English Bay

Distance from Burn (miles) 5

Location Port Graham

Distance from Burn (miles) 6

Location Seldovia

Distance from Burn (miles) 10

5. Show your mechanical recovery and in situ burning equipment configurations.

Step 4

How do you plan to collect burned oil residue?

Directly following the burn, residue will be collected with fine mesh net towed behind boats.

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

Collected residue will be stored in holding tanks and transported to nearest oil disposal company.

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Describe the risk of accidental (secondary) fire.

Risk will be minimal, due to emulsification, separation of contained oil from uncontained and supervision

How much will your burn impair visibility at airports?

Little to none; wind direction will prevent it.

How far is your proposed burn from the nearest Class I airshed?¹ 15 miles

¹ Class I airsheds in Alaska:

- Denali National Park and Preserve
 - Bering Sea National Wildlife Refuge National Wilderness Area
 - Simeonof National Wildlife Refuge National Wilderness Area
 - Tuxedni National Wildlife Refuge National Wilderness Area (this area lies adjacent to Cook Inlet)
- Special protection of visibility is also designated in the following areas
- Mt. Deborah and the Alaska Range East viewed from the Savage River Campground area
 - Mt. McKinley, Alaska Range, and Interior Lowlands viewed from Wonder Lake

Signatures

Signature of Applicant

John Kwietniak

Printed name of Applicant

4/19/05 1500

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

Example

Prepared By: _____ ICS Position: _____ Phone: _____

**ON-SCENE COORDINATORS' REVIEW CHECKLIST
In Situ Burning Guidelines for Alaska**

STEP 1

Is mechanical containment and recovery alone insufficient or unfeasible?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
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STEP 2

Will the oil become 2 to 3 mm thick?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Is the oil fresh (less than 2 or 3 days of exposure)?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Is the oil emulsified by less than 25 percent?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Is visibility sufficient to see oil and vessels towing boom, and suitable for aerial overflight for burn observation?

<input type="checkbox"/> yes	<input type="checkbox"/> no
------------------------------	-----------------------------

Is wind less than 20 knots?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Are currents less than 0.75 knots relative to the boom?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Are waves less than 3 feet in choppy, wind-driven seas or less than 5.7 feet in large swells?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Does the responsible party have a site safety plan for this incident that specifically addresses the proposed burning operations?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Will response workers be briefed on this plan before burning starts?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Are personnel trained and equipped with safety gear?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Is a communications system available and working to communicate with aircraft, vessels, and control base?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

Are operational and environmental conditions feasible for burning?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

For burns not in broken ice, can the responder extinguish the fire?

<input type="checkbox"/> yes	<input type="checkbox"/> no
------------------------------	-----------------------------

Will the burn meet the operational criteria for:

the next 24 hours?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

the next 48 hours?

<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no
---	-----------------------------

STEP 3

Burning Near Unpopulated Areas:

Will the smoke pass into populated areas?

<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
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If no, proceed to Step 4. If yes, consider the following conditions of authorization.

**ON-SCENE COORDINATORS' REVIEW CHECKLIST
In Situ Burning Guidelines for Alaska**

Burning in Flat Terrain Near Populated Areas:

On water more than 3 miles from shore, the Green Zone safe distance is 1 mile from non-responders. On land or on water less than 3 miles from shore, the green zone safe distance is 3 miles from human populations. Burning at a green zone safe distance from people 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 impacted population can be sheltered in place or evacuated during the burn, proceed to Step 4. If people 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 people may be authorized if the 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:

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.

STEP 4

Notifications and Warnings:

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

If yes, are local government or state emergency service personnel with access to established public warning systems and authority to use them involved in planning for public notifications? yes no

For in situ burning on land, has the landowner and occupant been consulted? yes no

Is in situ burn smoke expected to pass into a Class I airshed? yes no

Is Level 1 public notification implemented in Green Zone? yes no

Are Level 2 medical alert to people with existing conditions, and Level 3 warning notification, and in-place sheltering, implemented in Yellow Zone? yes no

Is Level 4 emergency notification and temporary evacuation implemented? yes no

ON-SCENE COORDINATORS' REVIEW CHECKLIST
In Situ Burning Guidelines for Alaska

Trial Burn:

Is the trial burn's smoke plume comparable to the predicted smoke plume in size, direction of drift, and dispersion, thus validating the predicted safe downwind distance? yes no

If no, then expand the safe distance to a circle centered at the burn with a radius of 3 miles extending in all directions. Is the safe distance expanded? yes no

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.

Conditions:

1. The burn operations team will visually monitor the smoke plume.
2. The burn operations team will collect the burn residue in accordance with in situ burn plan that considered all potential methods of collection.
3. Public notification.
4. Other site-specific conditions of authorization: _____

Signature of Federal On-Scene Coordinator

Mark DeVries
Printed Name of Federal On-Scene Coordinator

4/20/05 1000
Date and Time

Signature of State On-Scene Coordinator

Gary Folley
Printed Name of State On-Scene Coordinator

4/20/05 0930
Date and Time

Prepared By: Jane Reece

ICS Position: RP permitter

Phone: 776-3241

More Information on this Form

When do you need this form?

This form should be filled out before any in-situ burning activities take place.

Who fills out this form?

A permitter with the responsible party.

Who signs this form?

Incident Commander, Federal On-scene Coordinator, State On-scene Coordinator.

Where does this form get delivered?

The form should be delivered to the State On-scene Coordinator. In addition, the State of Alaska has conditions of approval that need to be met. See attached letter.

**PREVENTION EMERGENCY RESPONSE PROGRAM
CENTRAL ALASKA RESPONSE TEAM**

555 Cordova Street, 2nd Floor
Anchorage, AK 99501
PHONE: (907) 269-7557
FAX: (907) 269-7648
<http://www.state.ak.us/dec/home.htm>

May 16, 2006

RE: Conditions of Approval for In Situ Burning

Dear _____ :

This letter is in reference to the conditions of approval for an In Situ Burn application in the event of a spill. Please be advised that the State of Alaska approval of the In Situ Burn will be subject to the following conditions.

- 1) This approval will be for the date specified on the approval. Continued in situ burn operations shall be subject to daily review and approval by the SOSC. This permit maybe terminated by the SOSC at any time.
- 2) The in situ burn operation shall not inhibit or impact mechanical recovery operations.
- 3) The applicant shall perform visual monitoring to ensure the operation and smoke plume is conducted as projected and will not impact either human populations or the mechanical operations. The applicant shall ensure that the monitoring team includes a representative from the State of Alaska to monitor the burn.
- 4) In situ burn efficacy observations and visual monitoring reports should include the amount of oil burned, the location of the burn, the time and duration of burn, the boom condition, wind direction, plume characteristics and amount of burn residue collected. These reports shall be submitted to the Department on a daily basis, no later than 12:00 noon the day following the burn, for consideration in approval for continued burning operations.

If you have any questions please contact me at 907-269-7543

Sincerely,

Gary Folley
State On Scene Coordinator

Cc: Captain Mark DeVries, USCG
Matt Carr, EPA
Betty Schorr, IPPP/Marine Vessel