



Lowe River Drill Exercise

June 27, 2001

**A Joint Fairbanks & Valdez Business Unit
Deployment Exercise**



U.S. Department
of Transportation

United States
Coast Guard



Commanding Officer
MSO Valdez

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Valdez, AK 99686
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16455
9 October 2001

Mr. Rob Shoaf
Alyeska Pipeline Service Company
1835 S. Bragaw Street
Anchorage, AK 99512

RIS	KMA	JDB	LQM	RSW	MDK
LJS	RECEIVED				JFS
RR	OCT 16 2001				PCN
DW	Rob Shoaf Vice President				WJS
GTJ	Other: <i>D. Maguire</i> (Gov. Rec)				ROW
DTH					WDR

Action	<input type="checkbox"/>	Info Only	<input checked="" type="checkbox"/>
CARTS No.:	<i>4568</i>		
Assigned To:	<i>B. Howitt</i>		
Dept.:	<i>FBU</i>		
Due Date:	<i>None</i>		

Dear Mr. Shoaf:

Ref: (a) PREP guidelines dated August 1994

I am pleased to inform you that the area exercise conducted on June 27, 2001 on the Lowe River in accordance with your Pipeline Oil Discharge and Contingency Plan (CP-35-1) satisfied the response plan core components for the Preparedness for Response Exercise Program (PREP). Alyeska may claim PREP credit for core components 1-3, 5-8, 10, 12, and 15 listed in Appendix B of reference (a). This exercise provided a unique response opportunity by bringing together Alyeska's Fairbanks and Valdez response teams and by giving me the opportunity to learn more about pipeline spill response and repair procedures.

Thank you for hosting this area PREP exercise. I look forward to continuing our partnership in protecting the environment.

Sincerely,

P.M. COLEMAN
Commander, U.S. Coast Guard
Federal On-Scene Coordinator

- Copy: Commandant (MOR)
- Commander, Seventeenth Coast Guard District (mor)
- Environmental Protection Agency, Region 10
- Alaska Department of Environmental Conservation, Central SOSC
- Alaska Department of Environmental Conservation, Valdez
- Alyeska, Dennis Maguire
- Alyeska, William Howitt

**Low River
Oil Spill Equipment Deployment
And
Incident Management Team
Exercise
June 27, 2001**

Exercise Summary Report

Executive Summary

A joint Fairbanks and Valdez Business Unit oil spill exercise was conducted along the Lowe River flood plain south of Keystone Canyon and at the mouth of the river in Port Valdez. Personnel and equipment were deployed at these locations. Incident command and control was initiated at Pump Station 12 and later transitioned to a combine business unit Incident Management Team located at the Valdez Emergency Operations Center (VEOC).

This exercise was an announced event (scenario details unknown) of approximately 12 hours duration. The exercise began at 5:30am with a notification to Pump Station 12 that a leak may be occurring in the pipeline segment immediately south of Keystone Canyon in the area of Brown Creek (PLMP 784). A single Recon Team was dispatched from the Valdez Terminal and response personnel from the Pump Station 12 area and at SERVS were put on notice for mobilization. Incident command transitioned from Pump Station # 12 to the Incident management Team in Valdez, a Unified Command was established, and an Incident Action Plan for the next operational period was developed. The exercise concluded at 5:00pm.

The response organization included the following elements:

- On-Scene Command Group – Pump Station #12 for Recon following, spill notification, and initial response mobilization.
- Field Response Divisions and Task Forces;
 - On-Land Division/ Task Forces 1 and 2 – PS # 12 and SERVS
 - On-Water Division/ Task Force 3 – SERVS
 - Staging Area – OMS 3-2
 - Air Operations – VEOC and Staging Area
 - Incident Management Team – combined FBU and VBU personnel
 - Unified Command – Incident Commander – FBU Vice President, Federal On-Scene Coordinator – USCG Captain of The Port, And State On- Scene Coordinator – ADEC Anchorage
- Wildlife Recovery and Stabilization Task Force
- Joint Information Center staffed by Alyeska and Joint Pipeline Office Personnel

The number of personnel engaged in the exercise were:

- Incident Management Team (combined Alyeska and Agency personnel) – 106
- Field Personnel (combined PS # 11/12, SERVS, VMT personnel) – 42
- Observers – 10
- Controllers/ Evaluators/ Monitors (combined Alyeska and Agency personnel) – 18

This exercise was unique from past oil spill exercises. First, the unified command FOSC was staffed by the USCG Captain of The Port. A U.S. EPA representative has always staffed previous pipeline exercise FOSC positions. Second, this was the first exercise where the Incident Management Team was staffed by personnel from two business units. This allowed Alyeska to functionally test the concept of combined asset response staffing and to establish new relationships with the U.S. Coast Guard.

Unit logs, evaluator notes, and other exercise related data were used to produce this summary report. This documentation will be kept on file at the FBU headquarters offices.

Exercise Highlights and Challenges

The exercise was designed to test the ability of the responders to implement strategies and tactics that would minimize environmental impacts from an oil release in the Lowe River. Participants needed to establish control of the event, develop priorities, initiate response actions commensurate with the potential of the release, and to develop follow on plans for a sustained response. The actions of the responders in the field and at the emergency operations center were witnessed and critiqued by a joint agency and industry evaluation team. Responders concluded the exercise by conducting a self-evaluation of their performance. These evaluations are summarized later in this report.

The responder's performance met expectations and the objectives of the exercise. Unusually high river levels and flow velocities challenged Task Forces 1 and 2, deployed near the source of the spill at Brown Creek. The effectiveness of containment boom deployed to deflect oil to recovery points in the exercise area was marginal. In a real event and not constrained by access permits, mechanical containment and recovery deployment areas would have to be selected further downstream and at more points to increase effectiveness. The use of heavy earth moving equipment to create diversion berms and pits was also constrained by high water levels and permit restrictions.

The ultimate value of these deployments was to give front line responders first hand knowledge of the effects of high water levels and flows on mechanical containment and recovery tactics. Despite the challenges, the responders demonstrated their persistence and commitment to achieve the best results possible in those conditions.

The On-Water Division / Task Force 3 deployed to the mouth of the Lowe River in Port Valdez as a mobile oil interception and skimming task force. The task force consisted of one LCM boat, two inclined plane advancing skimmers, two workboats, and collection boom. Tanker arrivals and departures at the Terminal interrupted this deployment.

Evaluation Team Summary Reports

The evaluation team consisted of personnel from Alyeska, the Joint Pipeline Office, the Alaska Department of Environmental Conservation, and the U. S. Coast Guard Marine Safety Office – Valdez. The team developed evaluation checklists consistent with the exercise objectives. Evaluators were tasked with making direct observations and summary notes capturing the responders performance. Evaluator also acted as exercise controllers by providing spill scenario inputs when and where needed. There were evaluation teams assigned to the following locations and staffed as noted:

- Team # 1 – Brown Creek – Task Force 1 -Mark Cook, APSC and Bonnie Friedman, ADEC
- Team # 2 – Main Staging Area and Task Force 2 – Fred Bethune, APSC, Mike Wrabetz, BLM/JPO, Joe Hughes, BLM/JPO.
- Team # 3 – Port Valdez – Task Force 3 – Carl Lautenberger, EPA/JPO, Jace Johnson, ADEC, Carl Christensen, USCG, Vince Mitchell, APSC.
- Team # 4 -Pump Station # 12 On-Scene Command Group - Jule Magee, APSC and Betty Schorr, ADEC
- Team # 5 – VEOC Incident Management Team – Larry Shier, APSC, Joe Kuchin, APSC, Dale Gardner, ADEC, Pam Chelgern-Koterba, APSC, Joanee Slemmons, ADF&G/JPO.

Evaluation Team # 1 Summary:

Task Force # 1's mission was to collect oil surfacing in Brown Creek. The tactic selected was to deploy containment boom in a deflection mode, oil recovery skimmers, and temporary storage tanks commensurate with the release and on-scene conditions. The velocity of Brown Creek was estimated at 5-6 knots. This current velocity is at the extreme upper limit of boom capability. With the attending high water levels, difficulties were experienced in getting personnel to the far bank to receive a messenger line for installation of a boom trolley line. Personnel were transported by helicopter across Brown Creek and messenger lines shot from a line-throwing gun. Given the current velocity, only slight deflection angles could be achieved. Attempts at steeper deflection angles resulted in submergence of portions of the boom.

Key Times/ Actions

- 6:40am to 7:40am – Task Force #1 arrives on site. Resources include land spill response trailers, mobile command post, site security personnel, safety personnel and the B0-105 helicopter. A main staging area is established.
- 8:34am – On scene Safety Officer provides a site safety plan briefing for all responders.
- 8:45am – Personnel begin deployment of containment boom and setting up skimmer and temporary storage tank equipment.
- 10:55am – First trolley line in place and boom being deployed.
- 11:45am – Second trolley line being deployed 100 yards downstream of first trolley line.
- 12:40am – Second deflection boom in place, minimum deflection due to fast current velocity.

Difficulties Encountered by Responders

- Initial equipment deployment was held up for completion of site safety plan and briefing. Some work can be done (based on initial site assessment information by Recon Team) prior to development and briefing of complete site safety plan.
- First line throwing action took three attempts to get line across.
- Brown Creek water level and velocities made mechanical containment and recovery techniques marginally successful.

Exercise Objectives Met?

- On scene communications and area command and control established – Yes.
- Establishment of an organized main staging area – Yes.
- Mechanical containment and recovery of oil – Marginally met due to water levels and current velocities.

Evaluation Team #2 Summary:

Task Force #2's mission was to construct oil collection pits in flood plain gravel bars using earth moving equipment, set deflection boom to divert oil into the collection pits, and to set up recovery skimmers and temporary storage tanks. High water levels covered the available gravel bars in the permitted exercise area and prevented alternative collection site development. Deflection boom and recovery equipment was set up at an alternate site on the east bank of the Lowe River adjacent to the main staging area. Communications in the response area and back to the VEOC were excellent.

Key Times/Actions

- 8:10am – PS # 11/12 personnel and equipment arrive on scene.
- 8:15am – Portable radio repeater and antenna set up at staging area.
- 8:20am – D-6 dozer from the Terminal arrives on scene.
- 8:50am – Decon area established at staging area.
- 10:48am – Determined water level too high for collection pit construction. This tactic is abandoned for this location.
- 11:58am – All deflection boom and recovery equipment deployed.

Difficulties Encountered by Responders/Successes

- High water levels and permit limitations prevented the actual construction of collection pits.

Exercise Objectives Met?

- Construction of collection pits – No, due to high water level and permit restrictions.
- Area command, control, and communications established and effective – Yes.
- Staging area set up and direction of incoming personnel and equipment managed effectively – Yes.

Evaluation Team # 3 Summary:

Task Force # 3's mission was to set up a mobile skimming and recovery task force in Port Valdez at the mouth of the Lowe River. This task force would intercept any oil not contained by the on-land task forces. The task force consisted of the Krystal Sea LCM, two JBF 3003 inclined plane advancing skimmer, deflection boom, and attending work boats.

Arriving and departing tankers at the Terminal interrupted the deployment of personnel and workboats.

Key Times/Actions

- 7:45am – Krystal Sea and Tatitlek Star depart from SERVS and Terminal docks for mouth of Lowe River.
- 8:15am – Krystal Sea and Tatitlek Star are deployed at Lowe River mouth.
- 12:40pm – Chenega Bay Star and two workboats arrive Lowe River mouth from Terminal and deploy two reels of Ro-Boom
- 3:20pm – skimming operations finished. Equipment recovery began.

Difficulties Encountered/Successes

- Personnel remained flexible and deployed equipment based on currents observed.
- JBF skimmers need to be connected into U-boom configurations to receive collected oil sheens.
- Selection of equipment and tactics were well selected and suited for the mission.

Exercise Objectives Met?

- Deploy mobile skimming and containment equipment to intercept oil from Lowe River mouth –Yes.

Evaluation Team # 4 Summary:

The Pump Station # 12 On-Scene Command group was tasked with initiating and coordinating a pipeline Recon to the Brown Creek area and mobilizing a multiple Task Force response to the discovered spill. The Pump Station # 12 On-Scene Command group was also charged with conducting an initial incident briefing to the IMT in Valdez in order to facilitate an orderly transition of incident command.

Specific objectives/challenges for this group were to establish communications with the recon team, dispatch responders to the proper locations, establish command and control of the incident, and maintain communications/command/control of the incident through the transitional period.

Key Times/ Actions

- 5:30am - OCC notifies PS # 12 of possible leak in Brown Creek area.
- 5:32am - PS # 12 calls VMT and directs recon of area.
- 5:45am – VMT Recon Team 12-2 calls PS # 12 to advise they are departing Terminal enroute to Brown Creek.
- 5:50am – PS # 12 Operations Section Chief begins notifying SERVS and PS # 9 and 11 to begin mobilization for a spill response.
- 6:20am – Recon Team 12-2 arrives at spill site and initiates site safety assessment actions.
- 7:10am – PS # 12 On-Scene Command in communication with VEOC, SERVS responders enroute to scene, PS # 11 and # 12 personnel enroute to scene. Evaluation Team # 1 departs PS # 12 enroute to scene with responders.
- 7:52am- ICS initial Incident Briefing transmitted to the Incident Management Team in Valdez. Transition of Command completed at 8:15am.
- 9:50am – Staging area established, helicopter on site, communications equipment in service, site security and check-in / check-out process in place and maintained.

Difficulties Encountered/ Successes

- The PS # 12 emergency center radio was not turned on during the initial ramp up. Recon Team 12-2 could not contact the PS # 12 emergency center by radio. Team 12-2 called back to the Terminal asking them to phone PS # 12 and have them turn on the radio. This was done and PS # 12 and Recon Team 12-2 established direct contact.

Exercise Objectives Met?

- All On-Scene Command exercise objectives were met.

Evaluation Team # 5 Summary:

The combined FBU and VBU Incident Management Team's mission was to transition command for the PS # 12 On-Scene Command group to the IMT without negatively impacting the established command and control in place, grow the response as needed during the initial response phase, and to develop an Incident Action Plan (IAP) for the next operational period prior to end of exercise. The IMT was primarily driven by real-time and actual activities associated with the field equipment deployments. A small number of exercise control inputs were given and used to provide simulated information needed by the IMT to carry the response forward. Some exercise control inputs were given to document independent actions taken by the response organization, or to round out information related to the incident.

Key Times/Actions

- 7:10am – Air operations plan in place and implemented.
- 8:15am – Command transitioned to IMT at Valdez Emergency Operations Center
- 8:55am – Liaison Officer meets with City of Valdez Department heads and briefs them on incident information. Solicits input and concerns.
- 9:00am – First Press statement released from Joint Info Center
- 9:05am – Situation Status Unit provides/ posts oil trajectory and time to reach Port Valdez if not intercepted.
- 11:00am – Situation Status and Resource Unit staff personnel sent to field to gather data.
- 4:10pm – Delivery of Incident Action Plan for next operational period.

Difficulties Encountered/ Successes

- The combined IMT worked very well together. No significant problems with processes or terminology.
- Communications process and hardware worked well
- The IMT organization developed supporting plans without prompting from exercise controllers. Examples are a) wildlife hazing, capture, and stabilization, b) waste management plan, and c) outline of repair plan.
- The Unified Command kept the organization focused on priority objectives, to the extent of directing a higher prioritization of finding the leak point for application of source control measures.
- The IMT used a variety of tools such as e-mail, web sites, and A-Net sites to gather needed information and graphics.

Participants Self Assessment Summary:

The assembled IMT conducted a participant's self-assessment at the end of the exercise. The command staff and sections were instructed to break out into work groups, discuss their performance, and to report out a combined listing of the top five items related to what went well for them and items they will commit to improve. The items, by section, are listed below.

Incident Command / Unified Command

- Notifications to Unified Commanders were not as efficient as expected – possible exercise artifact.
- Information flow from On-Scene Command group should go more quickly, especially if IMT personnel are assembled and ready to transition command.
- Situation Status Unit did an excellent job. Very good visual display of information.
- USCG not very familiar with pipeline operations and repair actions – need more education on this aspect of response operations.
- Question to IMT – Were objectives established by UC clear enough for sections to carry out their assigned missions? Answer – Yes.

Public Information Officer

- This exercise was a great opportunity to continue development of Joint Information Center processes and relationship building.
- The Unified Commanders provided good access and input.
- The use of videoconference equipment from Valdez to Anchorage Corporate offices worked very well.
- High value was received by including City of Valdez staff in the process.
- Very good information accessibility, primarily due to Situation status displays and Operations Section Chief availability for questions.

Safety and Security Officers

- Good coverage of VEOC and spill site.
- Exercise controllers provided field personnel with needed information in a timely manner.
- Digital pictures as part of Situation Status display worked very well.
- Air Operations Manager developed a good plan and provided good support.
- Wildlife group was not well supported by security.

Operations Section

- Communications processes and equipment worked very well. No communications issues.
- Field operations supervision did a good job at selecting sites within permit area. They did not give up when faced with challenging conditions.
- The opportunity for Pipeline and Valdez personnel to work together will pay dividends if a real event occurs.

- Situation Status Unit did an outstanding job of gathering information and displaying accurately. Video and still pictures really helped.
- Exercise permits should be for a larger area due to possible changing water conditions.

Planning Section

- The combination of Valdez Business Unit and Fairbanks Business Unit IMT personnel worked very well.
- Situation Status and Resource Unit use of field observers really helped keep on top of developments and accuracy of VEOC displays.
- Use of "Response" software expedited the Incident Action Plan development.

Logistics Section

- "Response" software really helped with filling resource requests, both ordering from vendors and dispatch from warehouses.
- Valdez IMT personnel are well practiced at anticipating resource needs and knowing sources of requested materials.
- Staging Area Managers provided good and timely information.

Finance Section

- Coordination with other sections and units on expenditures was very good.
- Good support from Anchorage Claims Unit.
- Section staffing by Valdez personnel was much appreciated.



PO BOX 60469 FAIRBANKS, ALASKA 99706 TELEPHONE (907) 456-3301 FAX (907) 787-8611

August 21,2001

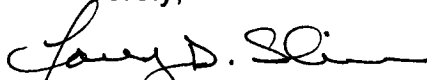
Reference: Transmittal of Lowe River Exercise Summary Documentation File

Dear Exercise Participant,

Enclosed is the summary Lowe River Exercise documentation package. As stated in the package, the consolidated documentation file will be retained at the FBU Headquarters. It is available for your review in our central exercise records file.

My thanks to every one who participated and especially to those who helped design, organize, control and evaluate the exercise.

Sincerely,


Larry D. Shier

CC: Bonnie Friedman – ADEC/JPO
Carl Lautenberger – EPA/JPO
Mike Wrabetz – BLM/JPO
Jim Criner – PS # 12
Pam Chelgren-Koterba - SERVS

Exercise Tracking No.:

Lowe River Exercise

1. Date and time exercise held:	Start: 6-27-01 / 0530
	End: 6-27-01 / 1800
2. Location: Lowe River	PS <u>12 & VEOC</u> PLMP <u>784</u>
3. Exercise or actual event?	<input checked="" type="checkbox"/> Exercise <input type="checkbox"/> Actual Event
4. Unified Command Implemented?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

EXERCISE CATEGORY

5.	<input type="checkbox"/> Notification Exercise	<input checked="" type="checkbox"/> Pump Station On-Scene Command
	<input checked="" type="checkbox"/> Incident Management Team Tabletop Exercise	<input type="checkbox"/> Qualified Individual
	<input type="checkbox"/> Equipment Deployment Exercise	<input checked="" type="checkbox"/> Announced
	<input checked="" type="checkbox"/> Pipeline ROW Recon	<input type="checkbox"/> Unannounced
	<input checked="" type="checkbox"/> Pipeline ROW Equipment Deployment	
	<input type="checkbox"/> Pump Station Equipment Deployment	
6.	Has a comprehensive Critique been completed which contains lessons learned and action items and is it available for review?	
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

QI NOTIFICATION EXERCISE

7.	Name of qualified individual:	Title:
a)	Was the QI available to be reached to carry out his or her assigned duties?	<input type="checkbox"/> Yes <input type="checkbox"/> No
b)	Notification Method:	<input type="checkbox"/> Telephone <input type="checkbox"/> Pager <input type="checkbox"/> Radio <input type="checkbox"/> In Person <input type="checkbox"/> Other:
c)	Did Notification procedures follow the Response Plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No

INCIDENT MANAGEMENT TEAM EXERCISE

8.	a) Was an <u>Exercise Plan</u> utilized and is it available for review?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	b) Was an <u>Evaluation Plan</u> utilized and is it available for review?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

EQUIPMENT DEPLOYMENT EXERCISE

9.	a) Equipment ownership:	<input checked="" type="checkbox"/> Alyeska	<input checked="" type="checkbox"/> OSRO: Name: SERVS	<input checked="" type="checkbox"/> Both
	b) Number of response personnel deployed during the exercise:	approx 130		
	c) Type and number of equipment deployed during the exercise:	(attachment)		
	d) Was equipment deployed in operating condition?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If no, explain in lessons learned)		
	e) Describe objectives and how they were met:	(attachment)		
	f) Describe Lessons Learned:	(attachment)		

CONTINGENCY PLAN COMPONENTS EXERCISE

10. Identify which of the following Contingency Plan components were exercised (Check)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notifications | 8. <input checked="" type="checkbox"/> Protection of sensitive areas |
| 2. <input checked="" type="checkbox"/> Staff Mobilization | 9. <input type="checkbox"/> Disposal |
| 3. <input checked="" type="checkbox"/> Operations of response management system:
<input checked="" type="checkbox"/> Unified Command
<input checked="" type="checkbox"/> IMT operation
<input checked="" type="checkbox"/> Local on-scene command | 10. <input checked="" type="checkbox"/> Communications |
| 4. <input type="checkbox"/> Discharge Control | 11. <input type="checkbox"/> Transportation |
| 5. <input checked="" type="checkbox"/> Assessment | 12. <input checked="" type="checkbox"/> Personnel support |
| 6. <input checked="" type="checkbox"/> Containment | 13. <input type="checkbox"/> Equipment maintenance and support |
| 7. <input checked="" type="checkbox"/> Recovery | 14. <input type="checkbox"/> Procurement |
| | 15. <input checked="" type="checkbox"/> Documentation |
| | 16. <input type="checkbox"/> Other |

DOCUMENTATION

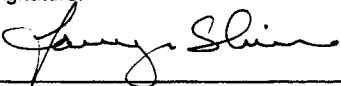
11. An exercise documentation package is available for review at the: FBU VBU CBU Other Location: PS-12

This document package contains all required documentation as outlined in the N-PREP and contains the scenario, objectives, lessons learned, action items, personnel involved and an explanation to any no answers from this form. The documentation package also contains the following supporting documents: (check as appropriate)

- | | |
|---|--|
| <input checked="" type="checkbox"/> ICS 201 Initial Incident Briefing | <input checked="" type="checkbox"/> Training Roster/Participant List with signatures |
| <input checked="" type="checkbox"/> Site Safety Analysis | <input checked="" type="checkbox"/> Critique/Lessons Learned (what went well, what we can do better) |
| <input checked="" type="checkbox"/> Unit Logs (ICS-214) | <input checked="" type="checkbox"/> Action Items |
| <input checked="" type="checkbox"/> Incident Action Plan (s) | <input checked="" type="checkbox"/> Signatures of Unified Commanders |
| <input checked="" type="checkbox"/> Evaluation Methodology | <input type="checkbox"/> |

Electronic Form Submitted By: Fred Bethune & Jim Criner	Title: Oil Spill Response Spec. & MC PS-12	Phone No.: Fred x5874Jim x5206	Date: 7-10-01
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Certifying Signature (s): Please provide this form with signature (s) as part of the Exercise Documentation Package and submit the package to the OSPR Coordinator within 2 weeks of the exercise.

Alyeska Representative: (print) LARRY D. SHIER for W.D. Howitt	Signature: 	Date: 8/21/01
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Federal Representative: if present (print)	Signature:	Date:
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State Representative: if present (print)	Signature:	Date:
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