

News, Analysis and Commentary on How the Oil Industry Works Today: Promises, Problems and Practices

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Joint Pipeline Office (JPO) Executive Council:

Alaska Pipeline Oversight Directorate Meets For the First Time in Five Years

Who Are Those Guys and How Well Have They Monitored The TAPS Strategic Reconfiguration Project?

By **RICHARD A. FINEBERG**

July 14, 2007 *

The Joint Pipeline Office (JPO) is an umbrella group consisting of a dozen state and federal agencies that came together in 1990, in the wake of the Exxon Valdez oil spill, to provide coordinated agency focus on the Trans-Alaska Pipeline System (TAPS). The 800-mile pipeline connecting the North Slope to Valdez is owned primarily by the North Slope's major producers through the Alyeska Pipeline Service Company, which was established in 1970 to build and operate their pipeline.

When the JPO's Executive Council -- the group of parent agencies whose pipeline people work in concert at JPO -- met in Anchorage June 13, it looked like a typical gathering of bureaucrats. But the meeting, held on a bright summer day in a windowless room at the back of the Alaska State Library's basement office in downtown Anchorage, was extraordinary. The council, which used to meet at least once a year, had not met for more than five years.

Two Elephants in a Windowless Room

That day, there were two elephants in the room. One was the huge regulatory loophole that government officials had somehow overlooked for three decades. Until a transit line linking Prudhoe Bay to TAPS sprung a leak last year, the safe operation of North Slope field pipelines had resided in something of a regulatory limbo. Major TAPS owner BP later said it maintained some 1500 miles of pipelines in the Prudhoe Bay area. In the wake of BP's problems, both state and federal monitors discovered regulatory powers they never knew they had; to close the remaining regulatory gaps, they also established new authorities.

Regarding the recent emergence of new oversight and enforcement powers, former Alaska Department of Environmental Conservation (ADEC) monitor Dan Lawn points out that adequate regulatory authority had existed all the time. To support this point, he cites two provisions of state law:

- The statute outlining the mission of ADEC, which says, that it is the policy of the state "to conserve, improve, and protect its natural resources and environment and control water, land, and air pollution, in order to enhance the health, safety, and welfare of the people of the state and their overall economic and social well-being." (As 46.03.010.)

- Statutory requirements that oil facility operators establish a detailed oil spill prevention and contingency response plan ("C-plan"), including the ability to implement that plan. (As 46.04.30.)

The second elephant in the room when the Executive Council met was the TAPS Strategic Reconfiguration project (SR). Currently in process, SR is a major overhaul of the 30-year-old pipeline to automate the entire pipeline and convert its pump stations from pumps powered by jet engines to newer, electricity-driven motors. TAPS crosses mountains, valleys and streams that are worthy of the highest level of environmental protection and the oil the pipeline carries constitutes a significant portion of the West Coast's oil supply. Therefore, the SR program deserves close scrutiny. But with major attention focused on the North Slope since the oil spill and resulting partial shutdown of Prudhoe Bay last year, few people outside the TAPS world seem to have noticed that the SR project was significantly delayed and over budget. Within that world, it is painfully evident that Alyeska bit off more than it could chew.

The June 13 Executive Council meeting was chaired by the representatives of the JPO's wheelhorse agencies, the federal Bureau of Land Management and state Department of Natural Resources. But the lead agencies didn't call this meeting. It was convened by a matter-of-fact guy with an impossibly long handle and two jobs: Vice Adm. Thomas M. Barrett (U.S. Coast Guard, Ret.), who is both the head of the U.S. Department of Transportation's Pipeline and Hazardous Materials and Safety Administration (PHMSA) and the Acting Deputy Secretary of the federal agency.

The retired admiral, who took over the newly reorganized PHMSA in 2006, immediately earned high marks for cutting through rhetoric with his frank criticism of BP's failures on the North Slope and his intelligent approach to looking at how pipeline regulators can best ensure that the industry delivers its commodities safely. In light of his unusual, dual responsibility for running the federal pipeline safety office while overseeing the nine other units of the Department of Transportation, it is noteworthy that Barrett came to Alaska and spent the day at the June 13 meeting. He was accompanied by the agency's chief field safety officer and the head of the Denver field office, to which PHMSA's Alaska representative reports.

Barrett says that he is fact-driven. This attribute will stand him well in dealing with the problems in Alaska, where basic facts about petroleum development in remote locations can be difficult to come by. Most of Alaska's petroleum development occurs in remote regions, where events in the field may be very different from the spin that politicians, industry representatives and regulators often apply to those developments. Unraveling the problems associated with TAPS Strategic Reconfiguration may be one of his toughest challenges.

The difficulty one encounters ascertaining facts is a constant problem for those seeking to understand the significant developments in the Alaska pipeline world since the JPO Executive Council last met in December 2001. Those events include: the Denali Fault earthquake in November 2002, renewal of the state and federal right-of-way grant and lease contracts in late 2002 and early 2003, the ongoing major overhaul of the Trans-Alaska Pipeline System (TAPS) and the field pipeline spill at Prudhoe Bay in 2006, followed by the discovery of major corrosion problems in other pipelines at the nation's largest oil field. In the political world, since the agencies that make up JPO last met to focus and coordinate their efforts, Alaska has elected two new governors, each of whom appointed new agency chiefs. On the federal front, the Pipeline Safety Act was passed in 2002, the U.S. Department of Transportation reorganized its pipeline unit, establishing the PHMSA in 2005 and Congress expanded the agency's authority -- in part due to BP's North Slope problems -- in December 2006.

The Comprehensive Monitoring Program and Public Outreach

Each JPO agency representative arrived at the June 13 meeting with a Powerpoint presentation that outlined his or her agency's part in the oversight of Alaska pipelines - what the agency had been doing and what it intended to do. The federal head of JPO, Authorized Officer Jerry Brossia of BLM, led off with a presentation introduced on the agenda as "JPO 101." To bring newcomers up to speed, Brossia, who set up the JPO and led it from the state side for five years before becoming the federal chief in 1996, painted a broad history of JPO's operation. Should the agencies responsible for ensuring safe and environmentally sound operations of the nation's largest oil field and its 800-mile pipeline link to tidewater need a primer on their oversight operations? And if they were just learning the ropes, what else were they missing?

The original purpose of the JPO was to coordinate permits and overlapping jurisdictions, while aiding oversight efforts by providing more staff and authority than any single agency could afford to monitor TAPS. Brossia discussed problems on TAPS in the early 1990s that triggered congressional hearings and resulted in a joint agency-congressional audit in 1993 that confirmed serious existing and potential problems on the 800-mile pipeline. These days, he said, "We do a lot of inspections" -- 720 per year. JPO also oversees about 65 to 70 oil spill response exercises per year, four of them described as "major." To handle these varied responsibilities, in 1994 JPO set up a database that tracked problems on TAPS and something called the Comprehensive

Monitoring Program (CMP).

Brossia presented a slide showing the CMP as a triangle with three tiers. Field surveillances by JPO monitors constitute the base of the triangle. The second level is focused assessments targeting specific problems identified during surveillances. A wrap-up document called a CMP report sits at the apex of Brossia's triangle. JPO's CMP reports were designed to put issues and compliance into broad perspective, and to serve as JPO's scorecard for its work. The umbrella group's 2002 report on industry compliance with right-of-way grant and lease terms, issued during the 18-month lease renewal process, describes CMP reports as "the key scheduled outputs of JPO work plans," while the JPO web site states that CMP reports are produced "primarily for stakeholders." From these descriptions and the presentation to the Executive Council, one would never guess -- and Brossia did not mention -- that it has been five years since JPO last published a CMP report. **(1)**

Even when published, the CMP reports left much to be desired. In 1998, this writer presented written testimony on the shortcomings of the CMP reports to the Executive Council. Two years later, the U.S. Interior Department's Inspector General concluded that "JPO needs to establish an internal quality control review process to ensure that information presented in its Comprehensive Monitoring Program reports and annual reports is accurate and supported." The Inspector General also noted what it described as "weaknesses relating to tracking and reporting compliance issues." **(2)** BLM acknowledged these problems and said it was taking action to remedy them." **(3)** But in 2002, this writer's review of the subsequently published CMP reports revealed that the positive results in those reports frequently contradicted the documentary record of the surveillances and assessments that built the report. **(4)**

Two of the biggest issues JPO has confronted since its creation were the re-vamping of the TAPS quality program in 1996 and renewal of the state and federal grant and lease agreements in 2002. In both cases, JPO signed off, granting approvals despite serious identified but unaddressed inadequacies in the TAPS programs under review. **(5)** Ironically, during the federal right-of-way renewal process in 2002, this writer presented testimony -- drawn from review of the record on NASA's 1986 *Challenger* disaster, in which seven astronauts died in a fiery explosion less than two minutes after launch -- that suggested that when officials establish a system to mitigate risk, monitors may become resistant to warning signals from outside that system. **(6)** This was one of the many examples of public testimony items ignored by officials but added to the tall stack of critical comments used later to support subsequent claims that public comments had been carefully considered.

The checkered history of JPO's CMP reports and the failure to publish one in the last five years are not the only measures of the shortcomings of JPO's outreach efforts. For most of the day June 13, Admiral Barrett and his small contingent of senior federal officials outnumbered the members of the public in attendance. Since the industry's recent problems on the North Slope triggered a raft of bipartisan congressional criticism, one cannot assume that concerned members of the public stayed home because they were confident that things were going well. One possible reason for the lack of public interest may be JPO's deeply ingrained philosophy of partnering with industry. **(7)** Critics -- this writer included -- believe this mindset has resulted in a sometimes unhealthy alliance in which the government overseers often seem to be shielding operators from public criticism rather than representing the public. Another reason may be that with the cessation of CMP reports, the flow of substantive public information from JPO -- often sluggish historically -- has slowed to a trickle. **(8)**

Strategic Reconfiguration: Overview

During the last decade, TAPS has undergone unprecedented physical changes. The ten pump stations necessary to pump 2.0 million barrels a day through the pipeline at peak in the late 1980's have been cut in half, matching the decline in North Slope production; a sixth station is expected to be closed at a future date, reducing the number of operating pump stations to four. The eleventh original field facility on the line -- a pressure relief facility on the south side of the Brooks Range -- remains in operation. It was only after four stations were closed that Alyeska began talking about a major overhaul of its pumping and control facilities. Under that makeover, known as Strategic Reconfiguration, the roaring, jet-engine powered turbines at the pump stations are being replaced with variable speed, electricity-driven pumps and the entire system is to be automated and controlled from Anchorage.

Recognizing that detailed preliminary engineering is the key to successful project implementation, when they reviewed the first SR documents some Alyeska veteran field personnel shook their heads in disbelief. Did the engineers in their glass offices in Anchorage and Fairbanks have any idea what they were asking? Apparently the TAPS owners had similar questions; for several years they had declined to grant full funding for the Alyeska program.

Despite the TAPS owners' apparent reluctance to fund Alyeska's plan, on Dec. 16, 2003, JPO granted formal, conditional approval to the concept of the SR program. The final approvals necessary to begin construction

would come later; to earn those Alyeska had to provide specific information dealing with basic shortcomings in its plan and approximately 130 general and technical items that JPO apparently felt required additional attention before final approval could be granted. According to the authorizing letter, at that time Alyeska's application also lacked basic elements. The letter listed seven necessary program elements Alyeska was lacking for SR, including: a project schedule; a compliance matrix showing all permits and authorizations necessary to complete a project in compliance with all laws and regulations; discussion of design criteria and methodology to assure that the project components would function effectively; a management of change system; and training program to coordinate the procedures necessary to assuring a smooth transition from the old pumping and control systems to the new, automated equipment. **(9)**

In light of the general recognition that careful preliminary planning is essential to project success and JPO's initial misgivings, it seems paradoxical that the monitors authorized the project before the TAPS planners had fleshed out the details of the project and provided fundamental information about project implementation. **(10)** But JPO gave the initial green light even before the TAPS owners themselves had authorized the project. At approximately the same time, the oversight agencies also obligingly cleared potential roadblocks relating to the revised contingency plan for spill response with the pump stations no longer staffed, despite unanswered questions raised by concerned citizens and veteran Alyeska spill responders. This was accomplished with another condition of approval. In this case, the monitors granted conditional approval to extensive contingency plan modifications while requiring, as a condition of those modifications, a new risk analysis and study of how crude oil travels in fast-moving inland streams crossed by TAPS. One wonders: Without this seminal information, how could Alyeska plan for these modifications? **(11)**

When finally approved and funded by the TAPS owners in March 2004, Alyeska described the Strategic Reconfiguration project as "a giant technologic leap" that requires "the single biggest pipeline investment since construction." When completed, "the new pump driver packages and other process equipment will be configured for full remote monitoring and control . . . OCC [operations control center] will then have full visibility and control over all the components needed for safe, remote operations of the newly electrified pump stations." Despite the fact that detailed engineering had not been completed, equipment manufacturers had not yet been selected and Alaska's winter could be expected to take a chunk out of construction time, Alyeska said that the project would be completed by the end of 2005. **(12)** In hindsight, a JPO staffer involved in the SR project review acknowledged ruefully that "Alyeska tried to swallow the whole whale with one bite."

Implementation Delays

As the Strategic Reconfiguration project moved forward, Alyeska ran into problems at every turn. More than a year into the project, in May 2005 - seven months before the project was supposed to be finished - project engineering and vendor documents were not yet fully complete and it was clear that SR had fallen behind schedule. At this point, although Alyeska management had to recognize delays, project managers optimistically assumed that if all went well the necessary pumping and control equipment could be built and installed by July 2006 so that line-wide start-up could begin the following month, to be completed no later than September 2006. **(13)** In the field, workers were running around like Chicken Little, trying to deal with routine maintenance and operations while building a whole new infrastructure. Throughout 2005, JPO issued the final Notices to Proceed, as well as more than 60 technical reports that varied widely in quality and content. **(14)**

In March 2006, the new turbine generator units, manufactured in England, were discovered to have serious corrosion in their core shafts. Despite the fact that the core units had to be pulled and returned to England for repair. **(For picture, [click here.](#)) (15)** The following month, Alyeska announced a project delay due to "late engineering design delivery" and "incomplete design scope" that make it "difficult to accurately plan field work and complete procurement." Since "any design change after mobilization of field contractors results in increased costs," it was felt that a less aggressive schedule would minimize these cost risks and would allow Alyeska time to repair the turbine generator defects. Under the revised schedule, Alyeska still planned to put the new electrically-powered units and their automated control systems into operation at Pump Stations 3 and 9 in 2006, along with the critical Safety and Integrity Pressure Protection System (SIPPS), which would take over control of the pipeline's remote valves and each pump station's relief tank system in January 2007. Alyeska still hoped to get Pump Station 4 on-line in 2006, too, but this time the company wasn't making any promises on the last pump station. **(16)**

By late summer of 2006, it became increasingly apparent that startup of even one new pump station by the end of that year was problematical. One worker commented that if he were king for a day, he would summon BP executives Lord John Browne and Bob Malone and hang them for the cost-cutting that placed such a heavy burden on the workers charged with responsibility for implementing management goals. **(17)**

With efforts now focused on putting Pump Station 9 into operation before Dec. 31, inspectors belatedly

discovered that some of the new electrical equipment lacked proper safety certifications because it was manufactured outside the United States: more scrambling. Originally estimated to cost \$250 million, the project was now expected to cost twice that. Finally, in early December 2006, Alyeska determined that "the prudent approach to ensure a safe and quality startup of the reconfigured equipment and for the cutover to SIPPS" would be to delay the start-up at Pump Station 9 until early 2007. This time, a firm schedule for finishing the remaining three pump stations was not set. **(18)**

While the problem-studded SR project was struggling in the field, legislators in Juneau were receiving testimony about the necessity of preliminary planning to prevent similar problems on the proposed natural gas line from the North Slope. **(19)** From this perspective, one wonders: Did JPO's partnering mentality lead the pipeline overseers to depart from conventional wisdom by pushing SR forward in the absence of adequate preliminary work? And what were the consequences?

A Small Fire or a Huge Fireball - Which Was It?

On January 6, 2007, one month before the new, automated system went into operation at Pump Station 9, a fire - reportedly small, according to official accounts - occurred when an unexpected pipeline shutdown triggered oil diversion from the pipeline into the station's relief tank. As the relief tank filled at Pump Station 9, the tank expelled flammable vapors that were ignited by a nearby Tioga industrial heater being used to facilitate completion of the Strategic Reconfiguration system during cold weather. Accounts of this incident differ, depending on who you are talking to. According to JPO's version, the fire was put out in five minutes and caused no injuries or damage to equipment. But on-site personnel reported that the flames rose high over the buildings and that workers on site thought they nearly lost the station. In any event, a state Department of Labor investigation found a number of safety deficiencies, and that Alyeska was out of compliance with health and safety requirements. **(20)**

In either case, the fire at Pump Station 9 is surprising for a number of reasons. Alyeska has experienced numerous fire code problems at various pump station in the past, including Pump Station 9; additionally, it should be noted that safety requirements for using industrial heaters are clear and the dangers of igniting petroleum fumes are well known.

None of these problems were discussed at JPO's June 13 Executive Council meeting. Ironically, one of the few efforts to pinpoint existing problems that threaten the safety of the North Slope production and delivery system also spotlights the shortcomings of the Executive Council meeting. During the state's Division of Fire Prevention's brief presentation, the agency's representative to the JPO assured the Executive Council that there is a night-and-day difference between Alyeska's current, pro-active attitude toward fire safety and the company's former posture. However, he noted, a major problem that must be dealt with in the future is that Alyeska had not developed a strategy for dealing with fire hazard identification and response at unstaffed facilities. Nobody thought to ask him why the Strategic Configuration fire response planners apparently operated on the night side, or how this problem got past JPO despite the monitors' specific request back in 2003 that Alyeska deliver its plan to meet fire safety and design methodology requirements prior to issuance of notices to proceed; the January fire at Pump Station 9 did not come up for discussion.

Start-Up

Pump Station 9 came on-line early in February 2007 and SIPPS was activated the following month. Since the first electric-powered pumps and the SIPPS system went into operation, the pipeline's new control system has malfunctioned on four separate occasions. This fact was mentioned at the June 13 meeting. But other than to note that a risk analysis was being performed on these incidents, additional details were not provided.

One of the control system failures occurred March 22, when the new remote control system diverted mainline oil into the 55,000-barrel pressure relief tank at Pump Station 9. Official reports vary from informal accounts. JPO officials say the SIPPS shutdown was a normal glitch of the type one would expect from new equipment, but some on-site personnel said the new system malfunctioned, temporarily "going blind" and failing to tell on-site personnel what was happening. In the absence of substantive information on this incident, it is not possible to resolve these conflicting versions of reality; nor is it necessary. If the SIPPS system indeed malfunctioned, it did so despite Alyeska and JPO assurances that the new safety system would be fully tested before it went into operation. Moreover, one of Alyeska's many 2005 technical assessments dealt with SIPPS factory acceptance procedures and concluded that those procedures complied with requirements. If the system did not malfunction, then the management of change and/or training programs must have failed because the personnel claiming the system "went blind" must have misunderstood what was happening.

Do the JPO monitors and the Executive Council have an adequate handle on TAPS field problems? Concern

about the end product of the delayed, problem-studded and over-budget TAPS makeover is heightened by past problems on TAPS. For example, between 1995 and 2001, as TAPS aged and regular maintenance shutdowns were scheduled, the pipeline experienced re-start problems for seven years in a row before TAPS operators and government monitors finally figured out that restarts were a problem. **(21)** More recently, the importance of pipeline control systems was demonstrated on the North Slope in February 2006, when inadequate leak detection was identified as one of the major reasons the largest spill ever to occur on the North Slope went undetected for five days. BP's after-the-fact investigation disclosed that the leak detection system was warning operators of the problem. But the operators thought the warnings were false signals and simply shut off the alarm and reset what they believed was a malfunctioning alarm system. **(22)**

As Alyeska put the first electric pump station into operation, the oversight group's irregularly published activity report cryptically commented:

JPO required a number of items to be completed and delivered prior to system cut over (implementation) including final commissioning procedures, evidence of qualified and trained personnel; system security analysis; and management of change procedures, results, and documentation. The JPO had previously issued a Notice to Proceed approval for the new system. **(23)**

One oversight area that deserves further analysis is the method by which JPO rolled the many items requiring approval into the 22 final notices to proceed with construction. Exactly how that approval system worked -- and how well it protected the public interest in safe design, construction and operation -- is not clear from information available to the public .

Oil Spill Response Plans

As noted above, the plan to automate pump stations calls for removing personnel permanently based at remote pipeline camps and replacing them with roving maintenance and response teams. Since pipeline company's pump station staffs formerly served as the first responders for oil spills and other emergencies, this plan represented a major change in TAPS oil spill response plans. Although Alyeska was industriously laying initial plans for Strategic Reconfiguration during the pipeline lease renewal process in 2002, government contract reviewers treated Strategic Reconfiguration as a hypothetical possibility. **(24)** in an administrative action that paralleled overall project permitting for SR, the monitors put the cart before the horse. The basic studies -- an updated risk analysis and a study of how oil travels in fast-moving streams -- should have been done as part of the preliminary conceptual planning, not after the fact. The area most impacted by the lack of appropriate prior planning was the southern 150 miles of the pipeline. In that mountainous 150-mile stretch, a series of fast-flowing streams crosses TAPS and flows eastward into the nearby, salmon-rich Copper River while earthquake potential and discontinuous, warm permafrost create conditions that make spills prevention and response particularly important. Alyeska decided to close Pump Station 12, 65 miles from Valdez, and move the spill response storage depot and personnel to Glennallen, another 60 miles north. But the move was poorly executed, leaving this critical portion of the pipeline inadequately protected for several seasons.

At least two current problems in the implementation of the TAPS C-plan did not make their way to the Executive Council June 13:

- Citizens in the Copper River region have identified three rivers feeding the Copper -- the Gulkana, Tazlina and Klutina -- that lack adequate spill containment sites. The Copper River Watershed Project has calculated that in the event of an August spill on the Tazlina River, it would take six hours for responders to arrive at the designated containment site. By that time, concerned citizens say, oil spilled from the pipeline would be past that site and would be on the Copper River Flats in 39 hours. "Despite a near consensus view of informed community members that a spill from the TAPS is a serious threat to our environment," the Cascadia Wildlands Project wrote in requesting an administrative hearing on the latest TAPS C-plan, "[t]he public has been locked out of the process." **(25)** To date, the Alaska Department of Environmental Conservation staff has opposed citizen requests for a hearing on their concerns.
- With more than half of the formerly manned pump stations closed and the remainder scheduled to be automated, the new C-plan is increasing dependent on helicopter transport to get equipment and personnel to spill sites quickly. But informed sources report that not all the helicopters necessary to accomplish this task are actually available for spill response on a full-time, dedicated basis.

Corrosion

One of the more intriguing pieces of information to come out of the June 13 meeting was the disclosure by

Alyeska that the pipeline company had discovered internal corrosion at two locations on the pipeline just north of Pump Station 3 on the North Slope. According to Alyeska, both spots were identified before they approached the point where repair was necessary. But just to be safe Alyeska putting a protective jacket or sleeve around both spots. The corrosion report to the Executive Council ended there, but there's more to the story. Here is the outline of what is known to the public.

Since corrosion was identified as a problem on TAPS two decades ago, Alyeska has sleeved over 100 spots on the pipeline. In almost all cases, the problem was identified as external corrosion, occurring at locations where the wrapping on the outside of the pipe has failed, exposed the pipe to moisture. Alyeska engineers originally thought that corrosion would not be a problem in dry northern soils; they were wrong, and the pipeline owners have paid over \$1.0 billion in corrosion prevention and maintenance on TAPS. **(26)** In contrast to the external corrosion on TAPS, internal corrosion - identified as the cause of BP's problems on the North Slope - occurs when deposits build up inside the pipe, allowing microbes to breed; internal corrosion, which attacks the pipe wall much more rapidly than external corrosion, is less apt to occur when oil flows under pressure and at a high speed, as on the journey through TAPS to Valdez. For this reason, while Alyeska has experienced some internal corrosion in the maze of piping at pump stations, few incidents of internal corrosion on the 800-mile mainline have been reported.

The failure to conduct routine maintenance was one of the principal factors leading to the February 2006 spill and BP's subsequent discovery of corrosion problems in its North Slope field pipelines. In testimony before Congress last September, Alyeska and government monitors contrasted the pipeline company's regular use of cleaning pigs -- devices dispatched through the pipeline to remove deposits from the inside walls of a pipeline -- to BP's failure to run pigs on the North Slope. Moreover, Alyeska informed Congress last September, to assure that the cross-country pipeline was free of the contaminants that caused problems on the North Slope, the pipeline company was running its triennial inspection using a "smart pig" -- a device that measures pipe wall thickness electronically to detect corrosion problems -- one year ahead of schedule. **(27)** But the early inspection pig run was unsuccessful due to the buildup of deposits on the inside of the TAPS line. In fact, the deposits are so intense that a cleaning pig broke up in the pipeline during regular maintenance pigging. **(28)** As it turned out, the heralded accelerated inspection pig run was completed on its initial schedule; at last report, the data had not yet been analyzed. **(29)**

Conclusion

The three current TAPS issues discussed here - the SR program, contingency plan and mainline internal corrosion and pigging - are linked by this common denominator: At its meeting June 13, the JPO Executive Council was not given sufficient information on any of them to evaluate how JPO is handling its responsibilities. This commentary has paid particular attention to SR because of the importance of the TAPS makeover program in assuring safe and reliable transport of North Slope crude oil.

As noted above, two of the biggest issues JPO has confronted since its creation -- the 1996 approval of the quality program and 2002 approval of renewal of the state and federal grant and lease agreements -- called JPO's performance into question. In the absence of better current information from JPO, it is difficult to evaluate whether government monitors, in their apparent eagerness to expedite the project, took appropriate measures to identify and mitigate the problems created by Alyeska's aggressive and sometimes unrealistic approach to SR planning and implementation. From this perspective, immediate and thorough review of the SR project approval is necessary. That review must be transparent, and it must involve the public.

One of the most important lessons learned in the 30 years that the North Slope and TAPS have been operating is the importance of citizens' oversight groups to combat the proven lethal combination of cost-cutting pressures, complacency and engineering myopia. In 1996, this writer's review of TAPS operations for the Alaska Forum for Environmental Responsibility included the recommendation that the JPO Executive Council should be expanded to include three members of the public. **(30)** In 2002, this writer's second review of TAPS for AFER recommended establishment of an independent citizens' oversight group. **(31)** Many environmental groups have endorsed that recommendation. But the bureaucratic tide has been running the other way. Monitors have joined the industry in opposing the establishment of oversight groups for the North Slope and TAPS. And, as note above, the JPO Executive Council didn't even meet for more than five years.

Against this backdrop, the remarks of Jonne Slemmons, Coordinator of the State of Alaska's newly established Petroleum Systems Integrity Office (PSIO), offered promise of improved oversight. In addition to assisting in coordinating oversight activities, the new office is charged with responsibility for conducting a gap analysis of statutes and regulations, as well as ensuring that industry quality assurance plans will guarantee systems integrity. In light of the chronic shortcomings in pipeline oversight and the failure of the JPO to convene an Executive Council meeting or publish a CMP report in five years, it is a bit disconcerting that the new state unit adopted the lease compliance monitoring template of the State Pipeline Coordinator's Office, JPO's lead state

agency. But the PSIO presentation was commendably different in focus from other Executive Council presentations June 13 in this regard: Where the existing agencies tended to recite their successes, the PSIO promised a much-needed look at how the monitors conduct their jobs. It remains to be seen whether the PSIO is destined to become just another acronym, or whether the Palin administration's new group will join U.S. DOT's Barrett in taking a fresh look at how the petroleum industry performs its tasks and making a hard run at ensuring top-level performance.

What was said -- and left unsaid -- at the June 13 JPO Executive Council meeting demonstrates that the government monitors responsible for ensuring safe and environmentally sound pipeline operations in Alaska need to define their goals carefully and then look at how they go about accomplishing them. If the mission is to protect the public interest in safe and environmentally sound operations, a primary task should be to ensure that the information from which the members are working is consonant with reality.

Exiting the conference room at day's end, some meeting participants some of the participants paused at the door to look out over Knik Arm, across the vast, flat expanse to the Alaska Range, shining in the distance. As their eyes adjusted to the bright, late afternoon sunlight, did any of them stop to reflect that they had spent the day in a windowless room?

Endnotes

* *Minor proofreading corrections posted July 26, 2007.*

1. JPO's last CMP report, *TAPS Maintenance & Sustained Useful Life* (CMP-02-C-002; Report #12), was published in June 2002. Agency personnel say they are in the process of preparing one or more CMP reports at this time.
2. Office of the Inspector General, "Survey Report: Oversight Activities of the Trans-Alaska Pipeline System, Bureau of Land Management," U.S. Department of the Interior, February 2001, pp. 6-8 (Report No. 01-I-206).
3. Among other actions, BLM said it would permanently assign a writer/editor to JPO "to better document supporting evidence for external reports" ("Response to Draft Survey Report on Oversight Activities of the Trans-Alaska Pipeline system, Bureau of Land Management [C-IN_BLM-022-99-R]," Nov. 3, 2000, p. 2 [memo to Assistant Inspector General for Audit from Tom Fry, Director, Bureau of Land Management, through Sylvia V. Baca, Assistant Secretary, Land and Minerals Management]).
4. Richard A. Fineberg, [The Emperor's New Hose: How Big Oil Gets Rich Gambling with Alaska's Environment](#) (Alaska Forum for Environmental Responsibility), 2002, pp. 21-68.
5. Richard A. Fineberg, [Pipeline in Peril: A Status Report on the Trans-Alaska Pipeline](#) (Alaska Forum for Environmental Responsibility), 1996, pp. 5.1-5.33 and 12.23-12.26; and "Opportunity Lost," (2004 review article published here [["Oilpatch / Trans-Alaska Pipeline: Environment"](#)] with supporting documents).
6. See: Richard A. Fineberg, ["Public Comment on Draft Environmental Impact Statement, Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way \(BLM/AK/PT-02/026+2880+990, U.S. Department of Interior, Bureau of Land Management, July 2002\) and Commissioner's Statement of Reasons and Proposed Written Determination for the Renewal of the Trans-Alaska Pipeline Right-of-Way Lease \(ADL 63574, July 5, 2002\)."](#) Aug. 20, 2002 (written comments submitted for the Alaska Forum for Environmental Responsibility, the Alaska Center for the Environment and the Northern Alaska Environmental Center); and State of Alaska Governor's Office, ["Murkowski Joins Norton for TAPS ROW Signing."](#) Jan. 8, 2003 (press release).
7. According to JPO's mission statement, " Safety, environmental protection, pipeline integrity, and regulatory compliance will be achieved through partnering with industry" (JPO web site [accessed July 14, 2007 at <http://www.jpo.doi.gov/JPO/locations.htm>]).
8. The difference between what JPO says and what it does can be seen in the frequency of its so-called weekly reports. Over the seven years between January 2000 and the end of 2006, JPO issued an average of 26 weekly reports per year. In other words, its weekly report was issued, on average, once every two weeks. During this 84-month period, JPO issued four weekly reports in the same month only seven times. At the other end of the scale, there were four months in which none were released and 18 months in which one weekly report was issued.

(See: JPO weekly reports, posted at <http://www.jpo.doi.gov/Publications/weeklyrpts.htm> [accessed July 14, 2007].)

9. "Re: Conditional Approval of Alyeska's Strategic Reconfiguration Preliminary Design Submission (APSC Letter #210)," (letter from Jerry Brossia [Authorized Officer, BLM/OPM] and John Kerrigan [State Pipeline Coordinator, ADNRP/SPCO] to Rob Shoaf [JPO Executive Liaison, Alyeska Pipeline Service Company]), Dec. 16, 2003 (with 28-page attachment).

10. See, for example, Ernst & Young, "Project Planning & Risk" (http://www.ey.com/global/content.nsf/UK/IS_-_ITG_-_project [accessed July 14, 2007]): "Getting project planning and risk management right are critical contributors to the delivery of successful programmes, yet these activities are often rushed or receive lip service only in the race to be seen making positive progress on major programmes."

11. Letter to Robert I. Shoaf (JPO Executive Liaison, Alyeska Pipeline Service Co.) from Jerry Brossia (Authorized Office, JPO/OMP), "Re: Pipeline Oil Spill Contingency Plan Review -- Annual Approval Including Approval of Strategic Reconfiguration Amendments," Dec. 31, 2003; and Letter to Robert I. Shoaf (JPO Executive Liaison, Alyeska Pipeline Service Co.) from Bill Hutmacher (Program Manager, Alaska Department of Environmental Conservation, Division of Spill Prevention and Response), "Oil Discharge Prevention and Contingency Plan Amendment Approval. See also: U.S. Dept. of the Interior, Bureau of Land Management, "Finding of No Significant Impacts and Decision Record," *Environmental Assessment of the Proposed Reconfiguration of the Trans-Alaska Pipeline System* (EA No. EA-03-009), Jan. 30, 2004.

12. Alyeska Pipeline Service Company, *Pipeline Reconfiguration Project Overview: Pump Stations and Control Systems Upgrade -- Project Completion by End of 2005, March 2005*, pp. 2, 4; and "\$250 Million TAPS Upgrade Approved: Alyeska starting biggest TAPS project since construction" (*Alyeska Monthly Newsletter*, March 2004).

13. Alyeska Pipeline Service Company, "Strategic Reconfiguration -- Final O&M Review Agenda: Discussion Outline," May 23, 2005, pp. 9, 15.

14. Joint Pipeline Office, *2004-2005 Annual Report*, pp. 6, 28. A sampling of reports reviewed for this report varied widely in depth and quality. One technical report contained no information other than a *verbatim* reprint of one of 130 conditions JPO attached to the oversight group's preliminary project approval.

15. Alyeska Pipeline Service Co., "Keeping You Posted" (e-mail message from Lee Monthei, Strategic Reconfiguration Program Manager), circa March 2006.

16. Alyeska Pipeline Service Co., "Keeping You Posted" (e-mail message from Kevin Hostler, President), April 6, 2006.

17. This communication, from an e-mail exchange between TAPS personnel, was typical of the way exhausted field workers vented their frustration. (Since Malone had left Alyeska in 2000 for other duties with BP and had just returned to the U.S. as the head of BP North America, it is not clear that Malone was responsible for SR budget cuts.)

18. Alyeska Pipeline Service Co., "Keeping You Posted" (e-mail message from Kevin Hostler, President), December 13, 2006.

19. For example, Al Rogers, a former Exxon geologist who has spent the last decade examining mega-project successes and failures, told the Legislature that "[t]he primary thing you can do to guarantee difficulty in a project of this magnitude is to try to accelerate the schedule. Schedule acceleration is a high-risk endeavor in complex mega-projects." According to Rogers, proceeding ahead without resolving questions about diverse issues is a recipe for failure. The antidote? Front-end planning to identify problems before they occur and cascade will enable project managers to figure out what can go wrong and plan on mitigation strategies. (Al Rogers, Ph.D., testimony before the Alaska State Legislature, May 19, 2007, pp. 7-12. Although Rogers was summarizing the statistical results of his examination of international development mega-projects, in its complexity, dependence on multinational contractors and application to a remote environment, the TAPS SR project shares many elements in common with the larger projects he studied (<http://www.gov.state.ak.us/gasline/pdf/NL06-143%20-%2020AkLegis%20-%20Gas%20Pipeline%20-%2019May06.pdf> [accessed July 12, 2007]).

20. According to JPO:

"It was reported in the January 10, 2007 Weekly Report that the Department of Labor Safety and Workforce Development (DOLWD) Liaison was investigating a fire event at Pump Station (PS) 9. An unexpected pipeline shutdown due to an unrelated event at Pump Station 11 began relief operations at PS 9 diverting crude oil flow

from the pipeline to a relief tank during shutdown conditions. The relief of crude oil from the pipeline surges into the relief tank results in displacement of flammable vapors from the tank. Approximately one minute after the shutdown initiated, a portable industrial heater, located near one of the vents ignited the flammable crude vapors. The fire burned for approximately five minutes and was extinguished when the pump station relief valves closed. There were no injuries or damage to equipment.

"The DOLWD Liaison identified a number of safety deficiencies and Alyeska Pipeline Service Company (APSC) was found to be in noncompliance with the Federal Agreement and Grant of Right-of-Way Section 16, Laws and Regulations and Stipulation 1.20, Health and Safety as well as the State Right-of-Way Lease Stipulations 1.20, Health and Safety and 4.1, State Laws, Regulations, Permits and Authorizations.

"APSC was directed to respond to the investigation findings specifying any action taken as a result of this accident or any plans to prevent future accidents." (JPO Weekly Report, April 11, 2007.)

21. For background on TAPS restart issues between 1995 and 2001, see: *Pipeline in Peril*, pp. 6.8-6.10, 6.22 and 8.10-8.12; *The Emperor's New Hose*, pp. 27 and 72-75; and "Re: CPF No. 5-2002-503" (letter from James Reynolds, U.S. Department of Transportation Office of Pipeline Safety, to James Johnson, Vice President, Alyeska Pipeline Service Co., July 19, 2006, pp. 5-6 [assessing a reduced fine of \$15,000 for the violations of safe operating procedures during the TAPS restart mishaps of Sept. 22, 2001; http://ops.dot.gov/regions/west/CPF_NO_5-2002-5035.pdf, accessed July 12, 2007]).

22. For a discussion BP's problems with its Prudhoe Bay leak detection system based on the company's accident investigation report, see the author's Sept. 3, 2006 report, ["Shocking?" Evidence Mounts from Alaska and Elsewhere that BP's Inadequate North Slope Performance Should Have Been No Surprise to Public Officials or Monitors - North Slope Corrosion Problems Fit Industry Pattern: Substandard Performance on the Trans-Alaska Pipeline and Elsewhere in Alaska Places Workers, Environment and Nation's Oil Supply at Undue Risk](#) (Alaska Forum for Environmental Responsibility), pp. 7-8.

23. JPO Weekly Reports, Jan. 10 and Jan. 24, 2007.

24. See: U.S. Department of the Interior, *Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way: Draft Environmental Impact Statement*, July 2002, Vol. 2, Sec. 4.2.2.6.3.

25. Cascadia Wildlands Project, "Supplemental Request for Adjudicatory Hearing" (In the Matter of Trans Alaska Pipeline System [TAPS] Pipeline Oil Discharge Prevention and Contingency Plan [C-Plan] Amendment approval - ADEC Plan No. 06-CP-4071), undated (circa May 17, 2007), pp. 4, 5 and 17; and "Response to Opposition to Supplemental Request for Adjudicatory Hearing," July 2, 2007.

26. For background on TAPS Corrosion Issues, see *The Emperor's New Hose*, pp. 52-56.

27. "Statement of Kevin Hostler," President and CEO, Alyeska Pipeline Service Company, before the U.S. House Subcommittee on Oversight and Investigations (Energy and Commerce Committee), Sept. 7, 2006.

28. Felicity Barringer, "Device Breaks Up in Pipeline, and Search Is on for Lost Piece," *New York Times*, Feb. 3, 2007.

29. JPO Weekly Report, Mar. 21, 2007.

30. Richard A. Fineberg, *Pipeline in Peril*, p. ES-25.

31. *The Emperor's New Hose*, pp. ES-4-5.

Article:

Joint Pipeline Office (JPO) Executive Council:

Alaska Pipeline Oversight Directorate Meets For the First Time in Five Years

**Who Are Those Guys and How Well Have They Monitored
The TAPS Strategic Reconfiguration Project?**

Archived from: [*The Oil Patch*](#)

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