Attachment P

STATE OF ALASKA

DEPARTMENT OF EDUCATION
DIVISION OF LIBRARIES, ARCHIVES & MUSEUMS
Kay Shelton, Director
Records Management Services
http://www.archives.state.ak.us/records_management.htm

SARAH PALIN, GOVERNOR

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TO: **Mike Thompson, Pipeline Coordinator**
State Pipeline Coordinator's Office
Office of the Commissioner
Department of Natural Resources

DATE: April 30, 2007

FILE: RM 4.00/spco.doc

FROM: D. Dawson, CRM
State Records Manager
Division of Libraries, Archives & Museums **MAILSTOP:** 0525
Department of Education & Early Development

E-MAIL: dean_dawson@eed.state.ak.us

SUBJECT: STATE PIPELINE COORDINATOR'S OFFICE ANALYSIS & RECOMMENDATIONS

I would like to thank you, Scott and the rest of your staff for the assistance provided during my field trip on April 4th - 6th. I completed my review of the SPCO's records and have several comments and recommendations. I believe it is critical that the SPCO address the first two issues at its earliest convenience.

1. **Case Files: Integrity, Accountability & Liability**. After interviews with staff it is reasonable to conclude that the integrity of the case files is currently at risk. To wit, "Are the records complete, honest and trustworthy; do they provide evidentiary value regarding SPCO business transactions? Is the information contained in the files complete, unaltered, reliable and authentic—able to stand for the fact it is about?" In most cases the answer to these questions is yes; however, there is a disturbing, substantiated allegation that some case files include BLM-authored technical reports issued on JPO letterhead that imply state concurrence regarding federally executed work, but in reality no state participation or agreement has occurred. As such, the BLM may be exceeding its statutory authority under the *TAPS Authorization* (and subsequent grant of ROW to Alyeska) and *Mineral Leasing Acts* with the result

that federal documents are co-mingled within the state case file."

According to a March 20, 2007 email from Jerry Brossia, BLM Authorized Officer to his engineering staff and copied to you, BLM staff were instructed to use BLM letterhead when only the BLM has been involved. You agreed with Jerry in a follow-up email to your staff that same day. The state engineering manager, Louis Kozisek, provided evidence that the AO's direction to his staff is not being followed and that BLM reports distributed under the JPO letterhead are being scanned, cross referenced in DTS, the Document Tracking System, and filed.

Recommendation: The SPCO should immediately request an Attorney General's Office investigation, opinion or memoranda of advice regarding potential state liability associated with the current, questionable business practices of the BLM. As a stop-gap measure until the AGO has completed its review and in order to protect the state's legal interests under its statutes and the *Alaska Statehood Act*, the SPCO should initiate an audit process for case file accretions, including entries and reports entered in DTS, to ensure jurisdictional integrity of the records. The office may complete a "Notice of Non-Concurrence" or similar form to certify that the state has not reviewed a particular surveillance report, assessment, etc. Further, the SPCO should work with the BLM to develop formal, written policies, procedures/processes regarding file integrity and intermingling of documents; and, insist that BLM-written documents identify the BLM as the authority, not the JPO.

2. **State Files Under BLM Control.** Some staff feel that the BLM may have state documents and case files in its custody, but this has not been substantiated, nor have staff claimed there was criminal or purposeful theft of state documents. There are concerns that [redacted] had deep ties to the federal government, perhaps "allegiance," and state records [redacted] custody ended up "missing." In one instance 10 boxes disappeared. Further, there is speculation that other state documents under this employee's purview were placed in the BLM files.

Recommendation: The state, through Phil Reeves, Assistant AG, should submit a FOIA request to the BLM Authorized Officer requesting to review all BLM case files (or to utilize a sampling methodology if a complete review is impractical) to clear the air once and for all as to whether the BLM has state

files in its custody. You and Scott should perform the review. Both sides should work out the arrangements of the review and you, with the facilitation of the AO, should finalize written FOIA procedures for steps to be taken in future reviews.

3. **Electronic Records Administration:** Storage and ownership of joint state/federal information, including email. The SPCO utilizes BLM servers and shares services, data and processes; and, administers Novell GroupWise WebAccess for email. Current information technology policies include: Email Size & Storage Policy (2/9/07); Shared & Personal Network Storage Policies (2/9/07); Information Accountability (6/22/04). These policies are well done and up-to-date. The network administrator stores and regularly rotates backup security tapes offsite at a local bank. You mentioned a plan to procure your own email server for state-only use.

   Recommendation: I believe a better and more cost effective approach is to have the SPCO become a part of the state email system and store its email on an Enterprise Technology Services Division archive server. Information about this project is available here: http://www.state.ak.us/local/akpages/ADMIN/info/msEA/ . Instead of a "first initial dot last name @ jpo dot doi dot gov" email address staff would receive a "first name dot last name @ alaska dot gov"" address. Your office's email would be administered legally and efficiently with the Zantaz Enterprise Archive Solution. The SPCO would set email access rights and information stores would remain safe and secure for their full retention periods. This would solve the current spotty email compliance that Greg Doggett noted. Russell Kunibe, Data Processing Manager in ETS could advise the SPCO how to best accomplish participation in the SOA enterprise solution. Resources saved by not procuring an email server could be spent on a state-owned file server.

   To parallel the paper-based separation of files, the SPCO should consider migrating electronic documents from the federal servers to its new file server (or begin from a point-forward basis). Authorized users, including the public and BLM, could access non-confidential state documents, through a secure Stellent Enterprise Content Management Web-based portal, that provides a central entry point of access to agency information, files, reports and other resource tools. Since much of your information is already routed to your staff electronically, the SPCO could set a five year goal to digitize nearly all processes so that "Record" copies are administered digitally in an unalterable form.

4. **Case Files: Procedures, Management, and Organization**, including file guides, indices and manuals for approximately 800 cubic feet of records. JPO Procedure P-A-12 for your case files dated March 8, 2005 is one of the best I have ever seen. The physical location of the case files is spread over two floors within compact shelving and five-drawer file cabinets. The doors are secured by keyed locks and protect the files from unauthorized access. According to staff files are rarely lost; file checkout cards are used and a "red dot" system has been implemented for closed out cases. You and Scott make the determination regarding confidentiality, including which staff are authorized for clearance to review these files; and, which documents will be scanned and placed in DTS. Originals are secured in manila folders within the file. There is a well-delineated mail handling procedure flow chart that graphically describes the records path and incorporation into the case files. The detailed files plans currently used have been developed and structured according to each particular lease and are precise, but lack consistency. Although some file schemas are too detailed to be of optimal use, I don't recommend changing any of the file plans as the effort expended may have dubious value.

   Recommendation: Procedure P-A-12 should be updated at your earliest convenience to reflect the new reality of segregated hard copy files as per the August 25, 2006 memo from you and the AO and issued to all staff; and, the fact that there is no longer a records analyst position. This procedure includes the Official Record Definition (5/29/03), which is excellent but should include a reference to AS 40.21.150(6) which defines "record" in statute and 4 AAC 59 that defines "electronic record."

   You may wish to consider keyless, cipher locks for greater control and security. It might be reasonable to reference the confidentiality citation on the outside of the folder, in addition to the specific citation in DTS.

   In the future it may be possible to move toward a standardized file classification schema, or taxonomy, with Stellent tools. You should also be able to scan all files and restrict access by using confidentiality check boxes.

5. **Records Retention Schedule**, including archivist opinion of case file records. I spoke with the archivist and he concurs that the case files have permanent historical significance documenting substantive activities of the SPCO. Upon receipt at the state archives, these records will be included in a preservation microfilming project.

   I attached an updated 13 page schedule which includes only state records. The addendum on page 13 lists all applicable confidentiality restrictions. Several of the records series are also listed on the *General Administrative Records Retention Schedule* and I cross-referenced those file sets in the "Remarks" column. This document is ready for your office's review and any amendments, deletions or other edits may be emailed back to me.

I hope this has been of value to you. Please let me know if you have any questions. Thanks for your consideration in this matter.

cc: Scott Pexton, Chief of Right-of-Way
Ken Nail, State Archivist, LAM
Kay Shelton, Director, LAM
Pat Obrien, Micrographics Supervisor, LAM
Larry Hibpshman, Archivist, LAM
Neil Slotnick, Assistant AG, Law

Attachment Q

Bureau of Land Management

Office of Pipeline Monitoring

TAPS TECHNICAL REPORT

JPO No. ANC-07-E-011

Comprehensive Monitoring Program Report
Performance of the Strategic Reconfiguration Project

Pump Station 9 Strategic Reconfiguration Project in Progress

June 2007

Prepared By:
Joe Dygas

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20070625-22 June 25, 2007
(signed by JD 6/12, JB & JC 6/14)

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Executive Summary

Performance of the Strategic Reconfiguration (SR) Project was compromised by several factors. In the initial stages, a highly aggressive schedule and too broad a scope led to poor engineering design, project management and procurement decisions. Secondly, not recognizing the necessity of government permit acquisition requirements and time frames led to poor quality permit package submissions. These inadequacies led to numerous governmental concerns with a wide variety of design aspects and requests for additional information. Communication and coordination both internally within the SR project teams and with the government agencies at the Joint Pipeline Office (JPO) were quite challenging consequences of the strategic flaws in the project. JPO oversight of the SR Project included numerous surveillances and engineering reports by February 2007, and considerable written correspondence and meetings to identify concerns, resolve concerns and follow-up on Alyeska's responses.

Many of these challenges were finally corrected after Alyeska took more direct charge of the project with its own organization. Further, once the construction effort was focused on finishing construction of PS 9 and preparing it for start up in February 2007, project performance improved. The post construction Functional Check Out, Commissioning and Start Up phases were conducted with a high level of performance that led to a successful start up at PS 9 in February 2007. Presumably, lessons learned from the effort at PS 9 and continued JPO oversight will assist a successful completion of construction, FCO, Commissioning and Start Up phases at PS 3.

The following recommendations have been made in order to improve future Alyeska project performance:

- Alyeska needs to implement lessons learned that were shared with the JPO in a joint meeting held on 5/10/2007;
- Alyeska needs to improve its interface with JPO through better coordination, regular communication, efficient and accurate information sharing, improved documentation, providing accurate schedules of work activities, better advance notice of field events of interest or concern to JPO. JPO interface at PS 9 could serve as a model for further field oversight at PS 3 on the basis of the BLM's Pump Station 9 oversight experience to oversee status of construction, FCO, Commissioning and Start Up activities at Pump Station 3;
- Alyeska needs to improve its assessment of future performance of its SR project management processes for Pump Station 3 to identify potential problems or failures and to report such issues promptly to the JPO and to fully implement corrective actions in a more timely manner.
- Alyeska needs to ensure that submitted final design packages as part of a Notice to Proceed Application are at least 90% complete.

1.0 Introduction to the Joint Pipeline Office:

The Joint Pipeline Office (JPO) is a consortium of Federal and State Agencies which monitor the activities of Alyeska Pipeline on the Trans-Alaska Pipeline System (TAPS) for compliance with the conditions of the Federal Agreement and Grant (Grant) and State Lease (Lease), permit terms and conditions, and applicable regulations, codes and standards. The JPO issues permits for activities necessary for operation and maintenance of the TAPS. Through a Comprehensive Monitoring Program, deficiencies are identified and formal notifications of those deficiencies and correction expectations are submitted to the TAPS operator, Alyeska Pipeline Service Company (APSC). The notification imposes correction deadlines, tracks and retains information, and verifies results.

The state lead in the JPO is the Department of Natural Resources (DNR) and the Bureau of Land Management (BLM) is the federal lead. In addition to TAPS, the SPCO currently administers 15 existing leases, one grant, and several proposed pipeline right-of-way leases within Alaska.

The JPO is an organization of federal and state agencies with approximately 70 employees headquartered in Anchorage with satellite offices in Fairbanks and Valdez, Alaska. The following tables describe the state and federal agencies participating in the greater JPO organization. Also shown is their general authority and jurisdictions.

Agency Jurisdictions

State

Department of Natural Resources

Administers state-owned land, as well as rights granted in land use leases, permits, material sales, water rights, and water use. (The former Division of Governmental Coordination, now Office of Project Management and Permitting, merged into DNR. OPMP acts as the lead agency for Large Project Permitting and the Alaska Coastal Management Program.) (The former Department of Fish and Game, Habitat and Restoration Division, merged into DNR, now Office of Habitat Management & Permitting. OHMP administers permit program to protect anadromous fish and their freshwater habitats and to ensure efficient fish passage in all water bodies.)

Department of Environmental Conservation

Regulates and issues permits to operate facilities that may affect air quality, generate waste, hazardous material treatment storage and disposal, and oil spill contingency plan approval.

Department of Fish and Game *

Hazing of wildlife in connection to oil spills, issues permits for beaver takings, and comments on subsistence issues.

Department of Labor and Workplace Development

Reviews practices and procedures pertaining to occupational safety and health; mechanical, electrical and pressure systems, and wage and hour codes to protect employees of the pipeline company.

Federal

Bureau of Land Management

Under the Department of the Interior, administers 88 million acres of public lands in Alaska. Issues and administers rights of way and permits for land use and cultural survey activities, and material sales related to pipeline use on federal land.

BLM National Web Page

U.S. Department of Transportation/ Office of Pipeline Safety

Regulates the transportation by pipeline of hazardous liquids and gases, as well as drug testing related to pipeline safety, and conducts inspections of TAPS.

Environmental Protection Agency

Works in partnership with the Alaska Department of Environmental Conservation to administer regulatory programs such as the Clean Air Act, Clear Water Act, and Oil Pollution Act.

U.S. Army Corps of Engineers *

Issues approvals of structures or activities in navigable waters and approvals of placement of dredged or fill material in waters of the U.S. including wetlands.

Department of Public Safety, Division of Fire Prevention

Concentrates on fire and safety inspections, plan reviews, fire investigations, and public safety education.

U.S. Coast Guard *

The U.S. Coast Guard issues approvals of work associated with construction and maintenance of bridges at aerial pipeline crossings over navigable waters and other activities that may impact navigation; oversees vessel movement in and out of the Valdez Marine Terminal area; and Terminal safety issues.

Department of Transportation Public Facilities *

Provides design, construction and maintenance of primary and secondary land and marine highways and airports.

Minerals Management Service *

Manages the nation's natural gas, oil, and other mineral resources on the outer continental shelf.

Approximately 70 staff, representing seven of the 12 agencies, is co-located in the Anchorage, Fairbanks, and Valdez offices. * No representatives co-located in JPO.

Federal Agencies

Agency	Authority	Jurisdiction
Bureau of Land Management (BLM)	• Federal Agreement and Grant of Right-of Way • Section 28 Mineral Leasing • Section 202 TAPS Authorization	• Federal Pipeline Right-of-Way (ROW) • Valdez Marine Terminal (VMT)
Department of Transportation-Office of Pipeline Safety (DOT/OPS)	49 CFR 190 Legal Definitions • 191 Annual Reporting • 192 Hazardous Gas Pipelines • 194 Spill Plans • 195 Hazardous Liquid Pipelines • 199 Drug Testing	• 48" Pipeline • relief tanks at pump stations • tanks 1 & 3 at the VMT • 8" & 10" fuel gas line from PS 1 to PS 4 • 58 non-TAPS gas and hazardous liquid pipelines with about 30 operators
Environmental Protection Agency (EPA)	CFR 40	North Slope, TAPS, VMT, and Prince William Sound
U.S. Army Corps of Engineers (COE)	Federal Water Pollution Control Act	Pipeline, VMT, and coastal waters
US Coast Guard (USCG)	Bridges/Navigable Waters • 33 CFR 1 124 • 33 USC 1341	Pipeline crossings, bridges, VMT, over navigable waters
Minerals Management Service (MMS)	Outer Continental Shelf (OCS) Lands Act 43 U.S.C. 131 et. Seq.	Production facility located on the OCS to the shoreline for pipelines

State Agencies

Agency	Authority	Jurisdiction
Department of Natural Resources (ADNR)	• Lease Stipulations	North Slope, TAPS, Pipelines, VMT, and Prince William Sound
Office of Project Management & Permitting (OPMP)	• Title 27, Title 38, Title 41, and Title 46, 11 AAC	Oil, Gas, and National Pollution Discharge Elimination System
Office of Habitat Management & Permitting (OHMP)	AS 46.40 Title 41, 5 AAC	North Slope, TAPS, Pipelines, VMT, and Prince William Sound
Department of Environmental Conservation (ADEC)	Title 46 18 AAC 50 Air • 60 Solid Waste • 62 Hazardous Waste • 63 Siting • 70 Water Quality Standards • 72 Waste Water • 75 Oil & Hazardous Substance • 80 Drinking Water	North Slope, TAPS, Pipelines, VMT, and Prince William Sound
Department of Fish and Game (ADF&G)	Special area permits under AS 16.20; hazing permits; review DEC oil spill contingency plans; makes recommendations directly to FERC under the Federal Power Act	North Slope, TAPS, Pipelines, VMT, and Prince William Sound
Department of Labor and Workplace Development (ADOL&WP)	• Title 18 Safety & Health Codes, National Electrical & Safety Code, Boiler & Pressure Vessel Codes • Title 23 Labor & Workers' Compensation • AS 08.18.116 Required Licenses	North Slope, TAPS, Pipelines, VMT, and Prince William Sound
Department of Public Safety, Division of Fire Prevention (ADPS)	• AS 18.70.080 Fire Protection • 13 AAC 50-55 Fire and Life Safety Regulations	North Slope, TAPS, VMT, and Prince William Sound
Department of Transportation & Public Facilities (ADOT&PF)	• AS 2 & 19 • 14 AAC & 17 AAC	North Slope, TAPS, Pipelines, VMT, and Prince William Sound

Agency Activity

Since the JPO is organized functionally, agency personnel may participate in self-directed work teams (response and preparedness, corrosion, special projects) and may perform oversight functions in addition to their jurisdictional responsibilities. Field activities are communicated and coordinated to eliminate duplication of activities and travel when possible. Agency products (correspondence, surveillances, reports, etc.) related to work performed on behalf of the JPO are entered into the JPO Comprehensive Monitoring Program (CMP) databases and common filing system thus enhancing and making available information on the business and history of the office.

Agencies of the Joint Pipeline Office conducts many frequent meetings on an inter and intra agency basis as well as coordination meetings with Alyeska in order to acquire information necessary for oversight purposes.

1.1 Role of the Bureau of Land Management:

The Bureau of Land Management conducts its compliance under the terms and conditions of the Federal Agreement and Grant of Right-of-Way for the Trans-Alaska Pipeline System, Bureau Regulations, and the Federal Statute, "Trans-Alaska Pipeline Authorization Act." The BLM works in conjunction with the Agencies of the State of Alaska under the JPO banner and other Federal Agencies such as the Dept. of Transportations Pipeline and Hazardous Materials Safety Administration, and the Environmental Protection Agency.

BLM's role in administering the Federal Grant of Right-of-Way is conducted using the Comprehensive Monitoring Program approach established in the early 1990's subsequent to Congressional Hearings and Audits. The CMP compliance approach is based on the conduct of surveillances, technical reports, assessments, correspondence documenting agency actions with the operator, Alyeska Pipeline, and enforcement actions through notices and orders when appropriate.

In addition, the BLM issues Notices to Proceed Permits to enable construction activities to occur either outside the established pipeline right-of-way or where significant departures from the TAPS Design Basis and Criteria are proposed by Alyeska as in the case of the Strategic Reconfiguration Project.

BLM and DNR have issued numerous Notices to Proceed during the course of their oversight of Phase I Preliminary Engineering and Phase II Detailed Design for Alyeska's

Strategic Reconfiguration Project, and during the construction, functional checkout, commissioning and start up of PS 09.

1.2 Role of the State Pipeline Coordinator's Office (SPCO):

The table above shows the participating agencies in the State Pipeline Coordinator's Office and their respective authority and jurisdiction. The SPCO is responsible for the administration and oversight of pipeline right-of-way (ROW) leases issued under Alaska Statute AS 38.35, the "Alaska Right-of-Way Leasing Act." Administration of these leases includes processing ROW applications; drafting Commissioner Decision's and draft ROW leases; conducting the public review process; issuance of leases or other project specific authorizations; in addition to conducting monitoring and compliance surveillances to ensure compliance with lease conditions.

A trademark of the SPCO is to work with applicants and agencies early in the permitting process to identify pitfalls, explain agency requirements, and draft a project schedule to eliminate surprises and provide an environment conducive to project success. This streamlining can save pipeline operators time, effort, and project cost savings. A ROW lease issuance normally requires a minimum of 18 months to accomplish provided the application is complete and no major project changes arise. Further details concerning the oversight activities of the State Pipeline Coordinator's Office and State Agencies may be found in the 2006 Federal/State Joint Pipeline Office's Annual Report.

2.0 Purpose:

The purpose of this report is to assess the performance of Alyeska Pipeline Service Company's (APSC) Strategic Reconfiguration (SR) Project from the point of view of compliance with the Trans Alaska Pipeline System (TAPS) Agreement and Grant of Right of Way (Grant), project performance lessons learned, and general project management observations.

In addition, this report also provides insight into the BLM oversight process of the permit, construction, functional checkout, commissioning and start up phases of the Strategic Reconfiguration Project.

2.1 Scope and Methodology:

The scope of this review focuses on the project performance of APSC's TAPS SR Project with particular emphasis on Pump Station 9. This report is a summary of design and construction compliance issues as examples of Strategic Reconfiguration Project Performance in response to a series of questions. The questions are posed to explore the quality of SR Project Performance from Phase I Preliminary Engineering to the Start Up of PS 9. The technical details associated with the issues described in this report have been recorded in numerous technical reports, surveillances and countless pieces of correspondence between JPO/BLM and Alyeska. The criteria which provides the basis for judging SR Project Performance includes but is not limited to the Notice to Proceed Process Requirements, compliance with the Grant and Agreement of Right of Way, and

Approved Notices to Proceed, Codes and Standards, Design Basis and Criteria, Agency Regulations, Quality Assurance, and Employee Concerns as applicable.

- *Did Alyeska's Design of SR minimize potential harm to pipeline integrity and the environment?*
- *Did Alyeska comply with the Grant's Stipulation 1.7 on the Notice to Proceed Process?*
- *Was the project designed to minimize risks?*
- *Were Alyeska's project management processes followed?*
- *Were project priorities and schedules appropriate to the scope of the project?*
- *Was the project in compliance with required safety standards per the TAPS Grant?*
- *Was the project in conformance with approved permits for the project?*
- *Was project management and oversight adequate?*
- *Were project Audits appropriate and adequate?*
- *Was there adequate project oversight of the procurement, and materials receipt?*
- *Was oversight of project Functional Check Out (FCO), Commissioning and Start Up adequate?*
- *Was project documentation of the Construction, FCO, Commissioning and Start-Up process adequate?*
- *Were project communications adequate?*
- *Were there risks that went undetected and caused larger scale problems?*
- *Were outside consultants and experts effective and appropriate?*
- *Were project management goals, objectives, and policies changed along the way?*
- *Was the initial scope of the project appropriate?*

2.2 Background

2.2.1 Strategic Reconfiguration Oversight Summary

TAPS throughput peaked in 1988. The decline of North Slope oil production triggered an initial evaluation of future operating conditions. Conceptual modifications were reported in the Final Environmental Impact Statement for TAPS Right-of-Way Renewal [1] in 2002 and a conceptual engineering review was developed in 2003.

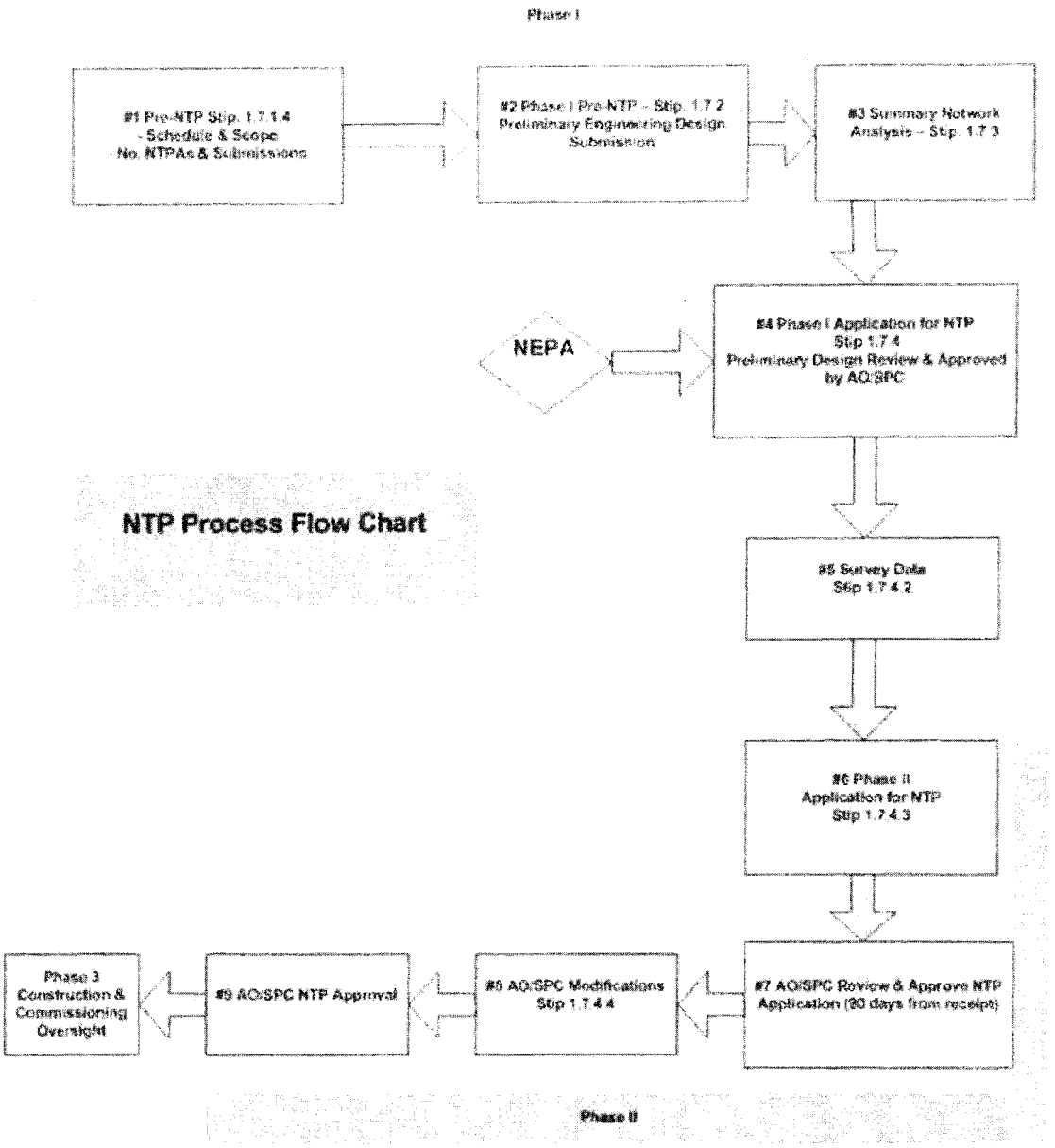
[1] Bureau of Land Management, 2002, "Final Environmental Impact Statement for TAPS Right-of-Way Renewal"

The TAPS Owners approved several changes to the current pump station configurations to allow the flexibility to adapt to changes in crude oil transportation through the TAPS and throughput decline, technological improvements, and optimization of support infrastructure and resource utilization.

The following describes the major steps or phases in the Strategic Reconfiguration Project as it was envisioned by Alyeska. The first two phases of this process were meant to comply with Stipulation 1.7 of the Federal Agreement and Grant of Right-of-Way.

- Phase I – Preliminary Design
- Phase II – Detailed Design
- Construction
- Mechanical Completion
- Functional Checkout
- Commissioning
- Pump Station Start Up and Run In
- Operations and Maintenance

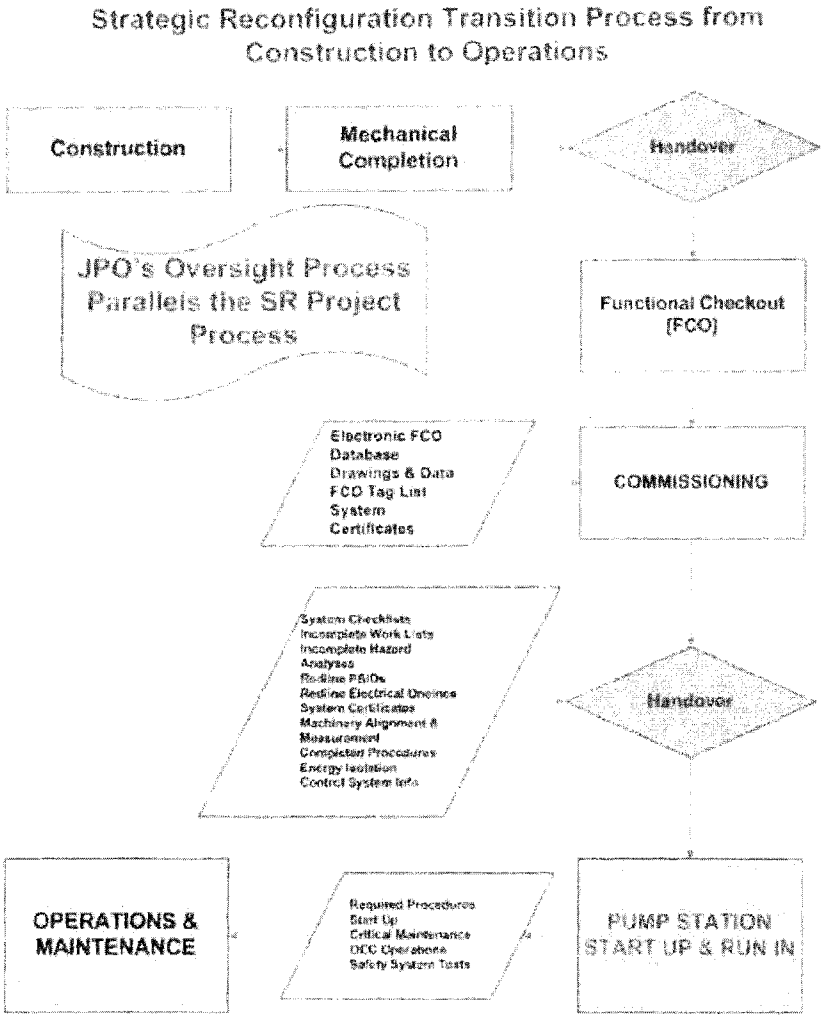
The Notice to Proceed Process as described in Stipulation 1.7 can be seen from the following diagram which is a flow chart of the Notice to Proceed Review and Approval Process. Because of the complexity of Strategic Reconfiguration, there was numerous Notice to Proceed submittals. Numerous design related issues were raised as a result of the technical review of each phase shown above and each NTPA received. In addition, numerous requirements for additional information were made to clarify the design concerns. With the approval of phase I, Preliminary Engineering Design, there were numerous issues or concerns that could not be resolved at that time and were deferred for resolution during the Phase II Detailed Design, and so these particular deliverables became known as the Phase II deliverables (see Appendix).



The above NTPA process shown here was previously laid out as part of the BLM's review and approval strategy as described in a JPO Report.[1] The essence of this diagram can be summarized by the following general phases starting from the upper left corner of the diagram and ending with the last step in the lower left part of the diagram.

1. Pre-Notice to Proceed Application Process;
2. Phase I, the preliminary engineering phase of the NTPA;
3. Phase II, the detailed engineering design phase of the NTPA; and
4. Phase III, the construction and commissioning oversight phase

The following diagram shows the significant steps in the Construction through start up process as it applied to Pump Station 9, which is the only pump station to be completed at this date. BLM oversight was conducted in parallel with the process steps shown below. BLM's oversight consisted of a mixture of surveillance reports and engineering reports and numerous pieces of correspondence to document requests for information and corrective actions by Alyeska.

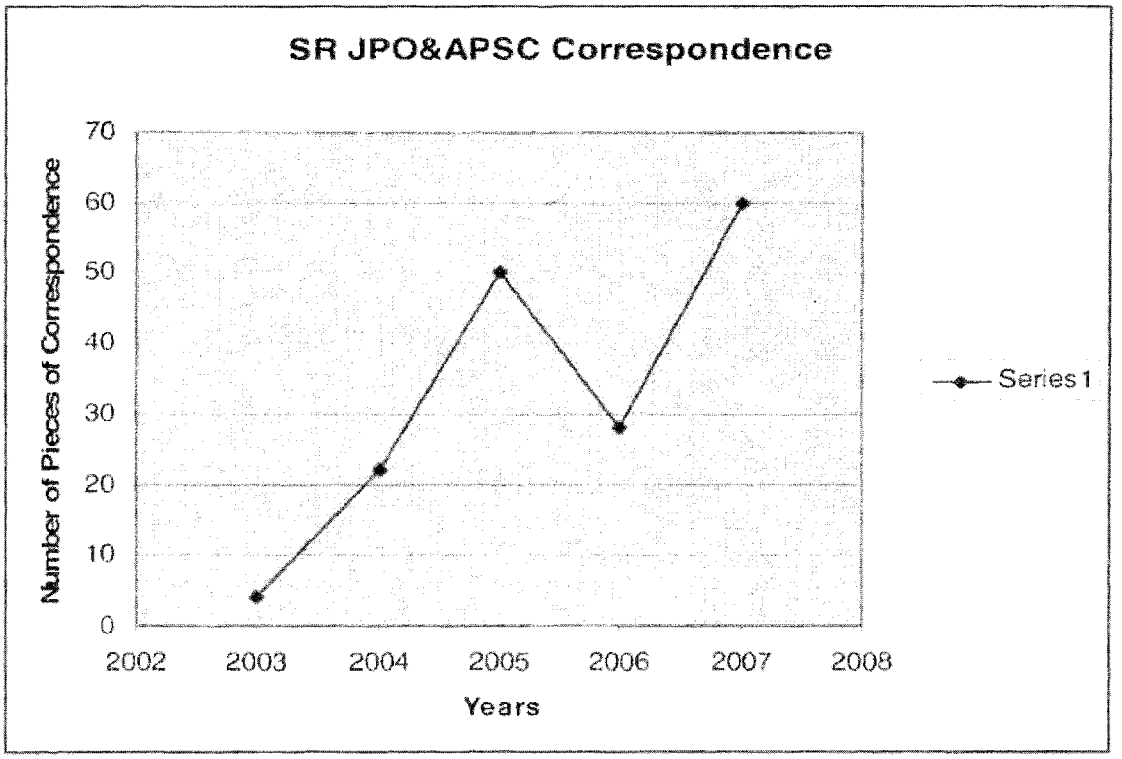


[7] JPO ANC-04-E-011, 4-24-2004, "TAPS Strategic Reconfiguration Technical and Design Review Work Plan."

To date, JPO has accomplished a number of major milestones:

1. Released an Environmental Assessment in 2004.
2. Given conditional approval of the amendment to the TAPS Oil Discharge Prevention and Contingency Plans from the Bureau of Land Management (BLM) and Alaska Department of Environmental Conservation (DEC) with several requirements.
3. Given conditional approval of the project preliminary design on December 16, 2003.
4. Given full approval of the design on May 28, 2004 after conditions were met completing Phase I of the SR Project.
5. Held a scoping meeting in Valdez in 2004 on proposed modernization.
6. Conducted numerous agency reviews and issued approvals in the Notice to Proceed process. About 30 Notices to Proceed were issued.
7. Issued other necessary permits and authorizations.
8. Monitored progress throughout the project.

The following graph shows the magnitude of correspondence exchanged by JPO and APSC on SR issues alone. The spike of correspondence thus far into 2007 reflects a considerable amount of correspondence due to the recent startup of Pump Station (PS) 9 in March 2007.



3.0 BLM's Focus: Environment, Safety and Pipeline Integrity

Results of a performance review of the ongoing SR Project focuses on discussions of numerous questions are as follows in addition to the results of a JPO team review of APSC's SR project performance.

3.1 Did APSC's Design of SR minimize potential harm to pipeline integrity and the environment?

The SR project was designed to electrify various pump stations and automate the control systems for operating the pipeline. The nature of the project had no environmental impact on the 800 miles of pipe that make up TAPS. All piping installed in the pump station was tested at PS 09 and will be tested as it is installed at pump stations 1, 3, 4 and 5 as appropriate. The SR Project was confined within the existing boundaries of the various pump stations and had no impact on the local environmental habitat. For a more in depth discussion of the potential environmental impacts of SR, consult the BLM's Environmental Assessment of the SR Project[3]. Initially, APSC's intent was to conduct a form of SR at the VMT. Consequently, the BLM conducted an Environmental Assessment for that proposal, but as events occurred, no SR project was undertaken at the VMT. Therefore, no environmental impacts of SR occurred at the VMT. Any environmental effects of the Pipeline SR project were identified in BLM's Environmental Assessment; however, none were significant in nature.

3.2 Was the project in compliance with required safety standards per the TAPS Grant?

Numerous safety standard issues related to the design and construction of the SR Project at PS 9 and other stations were raised throughout the project's history. The TAPS Grant of Right-of-Way incorporates compliance requirements under Federal laws and regulations on a system line-wide basis. Although numerous technical issues were raised during the preliminary engineering and detailed engineering design phases, these did not constitute compliance issues under the Grant.

Some examples of safety standard issues include the design of the louvered pump modules, fire and gas detectors that did not meet the design criteria for environmental conditions, electrical issues related to the ABB Switchgear and wire and cable that did not meet temperature and seismic environmental design criteria.

Over the course of the SR Project, the permit and review processes resolved those issues pertaining to a variety of State and Federal safety standards. This was a requirement in order for JPO to allow APSC to proceed with their startup process at Pump Station 9.

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[3] Bureau of Land Management, 2004, "Environmental Assessment of the Proposed Reconfiguration of the Trans-Alaska Pipeline System"

In order to ensure adequate compliance, BLM utilized information contained in the following lists:

- Phase II Detailed Engineering Deliverables,
- Alyeska's Commitment Matrix to the JPO,
- Alyeska's OPAL documentation,
- Alyeska's Incomplete Work Lists associated with system turnover from FCO to Commissioning, and to Start Up of Pump Station 9,
- Alyeska's Oil Movements Requirements List,
- Alyeska's Employee Concerns Integrity Issues List; and
- Alyeska Audit Recommendations.

BLM ensured compliance was achieved through its correspondence and documentation to Alyeska. Many of these issues were resolved prior to the startup of PS 9, however, those which were not critical to the startup process will be resolved post startup, and thus, the Commitment Matrix is an evergreen project document in progress. Some issues were also applicable to other SR pump station construction.

3.3 Was the project designed to minimize risks?

The answer to this question depends on the risk to particular aspects of the project. The SR's very project management approach turned out to be one of risk to the project itself judging from the fact that its original estimate for both the amount of time and cost were greatly exceeded in the long run. This ultimately became an issue for the State of Alaska who took exception to it by filing a legal complaint with FERC over the tariff determination for TAPS. FERC has since separated this particular issue from their determination of Alyeska and the Owners justification for the TAPS tariff. Most recently, during the week of May 28th, FERC announced the TAPS tariff was too much.

There were numerous technical issues related to the element of safety especially concerning louvered pump modules, electrical equipment; e.g., the ABB Switchgear, and fire and gas detector temperature ratings and certifications for wire and cable. These are examples of JPO's oversight of various equipment and design features of the project potentially affecting the safety and possible integrity of SR equipment.

3.4 Were there risks that went undetected and caused larger scale problems?

It was not foreseen in the original SR design that special load banks would be required for the operational use of two 2.25 MW diesel generators as backup generators for PS 9. This resulted in the legacy pumping system at PS 9 being used in a backup role after start up of PS 9 instead of the intended diesel generators, at least until temporary load banks were installed and in time permanent load banks.

A second example was the discovery of rust in the turbine generators after they had been received at their respective stations. Subsequently, some of these generators had to be removed and shipped to the manufacturer in Great Britain for refurbishment and return to the pump stations.

3.5 Was the initial scope of the project appropriate?

Initial scope was probably too broad in proportion to its cost estimate and schedule. The schedule seemed quite aggressive. More time devoted to the conceptual and preliminary engineering phases might have improved some of the scheduling problems. A lack of the necessity to incorporate time in the project's schedule to acquire various government permits was an oversight. One might consider the scope of the project to design and build 4 automated electrified pumping stations in a year and a half to be too large a scope for both the timeframe and complexity of the project.

3.6 Were project management goals, objectives, and policies changed along the way?

The SR objectives consisted of; addressing compliance with State Fire Codes, extending the life of TAPS for another 20 years, providing better operational flexibility, reliability, remote operation with a completion date of December 2005. At Pump Station 9 at least, these objectives were largely met except for completion by December 2005. As of March 2007, none of the other pump stations were completed. Other policies changed along the way. One example was the creation of a quality program just for the SR Project. Another was the change from SNC control of project management to direct project management by APSC.

4.0 Requirements

4.1 Strategic Design Basis and Criteria

The SR Project had its own project design basis and criteria as requested by JPO. This was provided as a part of the Preliminary Engineering Design Phase I under Stipulation 1.7.2 of the TAPS Grant. Numerous issues and concerns were raised during Phase I and some of them were carried forward into Phase II of the detailed Engineering Phase for resolution. Some were not resolved until specific NTPs were reviewed. The actual SR Project Design Basis and Criteria can be found on JPO's Q: drive in the SR folder under the Hot Documents section. Some of the design criteria would play a role later in the project with various design features or equipment that did not meet the original design criteria and environmental conditions such as low ambient temperature conditions or seismic conditions.

The key guidelines that provided the boundary conditions for the design basis and criteria were as follows:

1. Maintain pipeline safety and operational integrity;
2. Move all oil from PS 01;
3. Improve efficiency and reduce costs;

4. Maintain pipeline availability at 99% or better; and

5. Have new facilities in operation by 4th quarter of 2005.

As of February 2007, it can be stated that all the SR facilities were not completed by Q04 of 2005.

4.2 TAPS Grant/Lease of Right-of-Way Oversight Requirements

The following is a list of those sections and stipulations of the TAPS Grant and Lease which were used in the oversight of the Strategic Reconfiguration Project from Phase I Preliminary Engineering to the Startup of PS 09.

Sections and Stipulations Applicable to SR Oversight

Grant		State Lease
9	Constructions Plans and Quality Assurance Program	16
9C	Quality Assurance Criteria	16C
29	Training of Alaska Natives	
1.7	Notices to Proceed	
1.7.2.1	Preliminary Design Submissions	1.7.2.1
1.7.3	Summary Network Analysis Diagram	1.7.3
1.7.4		
1.7.4.3	Application Criteria	1.7.4.3
1.18.1	Surveillance and Maintenance	1.18.1
1.18.2		1.18.2
1.20.1	Health and Safety	1.20.1
1.21.1	Conduct of Operations	1.21.1
2.2.1.1	Pollution Control	2.2.1.1
2.4.5.1	Erosion Control	2.4.5.1
3.2	Pipeline System Standards	3.2
3.2.1.1	General Standards	3.2.1.1
3.2.1.2		3.2.1.2
3.2.2.2	Special Standards	3.2.2.2
3.4	Earthquakes and Fault Displacements	3.4
3.4.1		3.4.1
3.4.2		3.4.2
3.5	Slope Stability	3.5
3.7	Sea Waves	3.7
3.9	Construction and Operation	3.9
3.9.1		3.9.1
3.9.2		3.9.2
3.10	Pipeline Corrosion	3.10

4.3 Regulations:

Each of the agencies in the Joint Pipeline Office have specific regulations upon which a given agency conducts its oversight of the Strategic Reconfiguration Project, other project and line wide operations of TAPS. The Grant under Stipulation 3.2, Pipeline Standards cites specifically the US Department of Transportations Office of Pipeline and Hazardous Materials Safety Administration's use of 49 CFR Parts 192 and 195 governing natural gas pipelines and liquid hydrocarbon pipelines. The Alaska Departments of Natural Resources, Environmental Conservation, Public Safety and Labor all have their own specific regulations by which they conduct their oversight. In addition, the US Environmental Protection Agency, Corps of Engineers in the Department of the Army, the US Coast Guard and the Department of Homeland Security have specific regulations utilized in the oversight and permitting process on TAPS.

4.4 Codes and Standards:

The Grant and Lease cites such specific codes as ANSI B 31.4, "U.S.A. Standard Code for Pressure Piping", and ANSI C5.1 now known as NFPA 780 on "Lightning Protection Code." US Department of Transportation Office of Pipeline and Hazardous Materials Safety Administrations regulations in 49 CFR Parts 192 on Gas Pipelines and 195 on Liquid Pipelines identifies and includes in their regulations numerous industry codes and standards applicable to TAPS oversight. In addition, the State Agencies in the JPO also use specific codes and standards as a part of their regulatory framework for oversight. For example, the Department of Labor uses the National Electric Code for electrical inspection oversight and OSHA regulations for occupational safety and health standards.

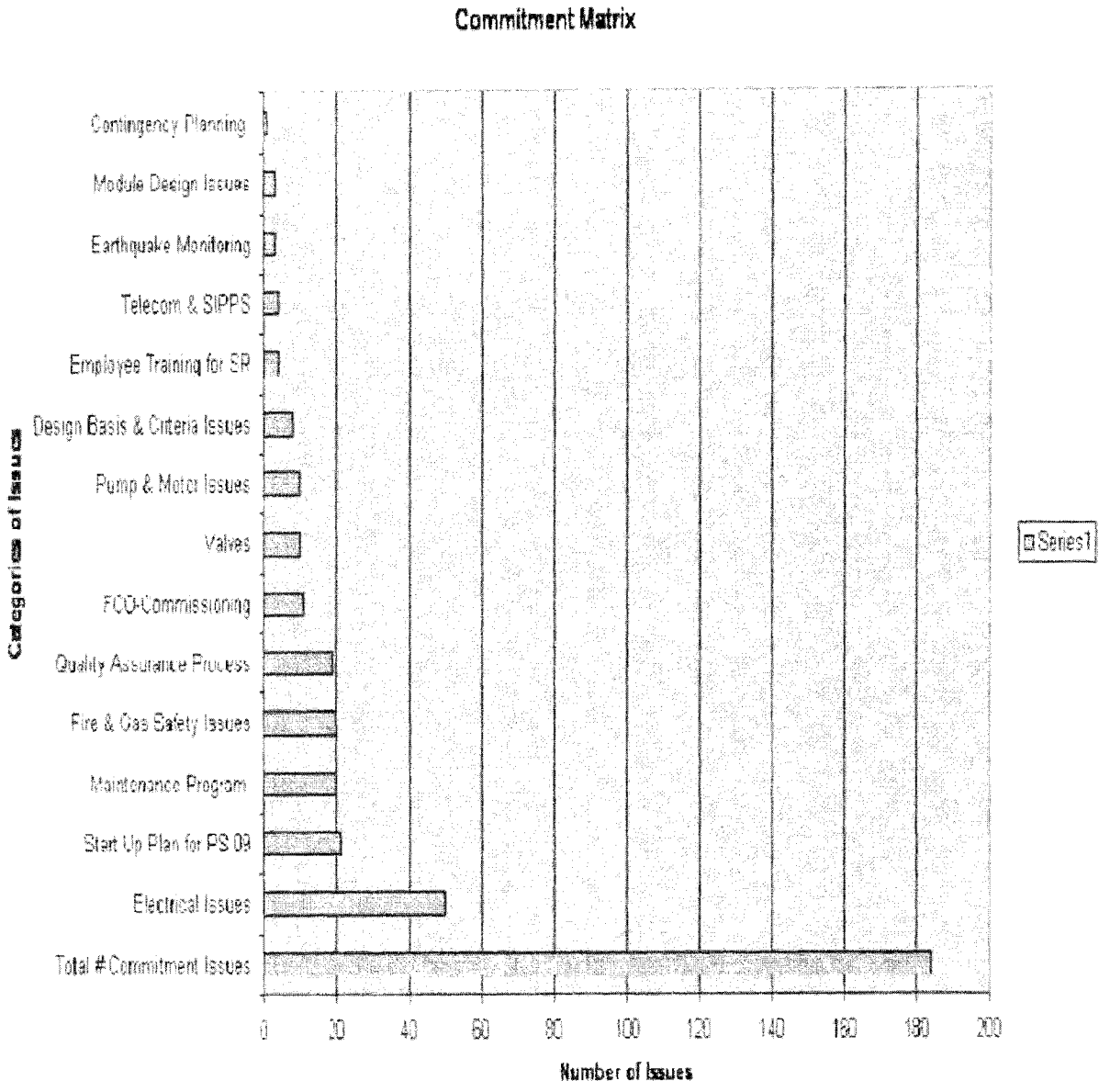
5.0 Compliance:

The agencies of JPO conducted their compliance oversight through the Federal Grant and Agreement of Right-of-Way, State Lease, various codes and standards of the agencies of JPO, stipulations throughout the notice to proceed permitting process, and the construction, FCO, Commissioning and Start-up processes at PS 09. The following tables show the criteria used in the review of the Notice to Proceed Application process. More than 30 Notices to Proceed were submitted during this process.

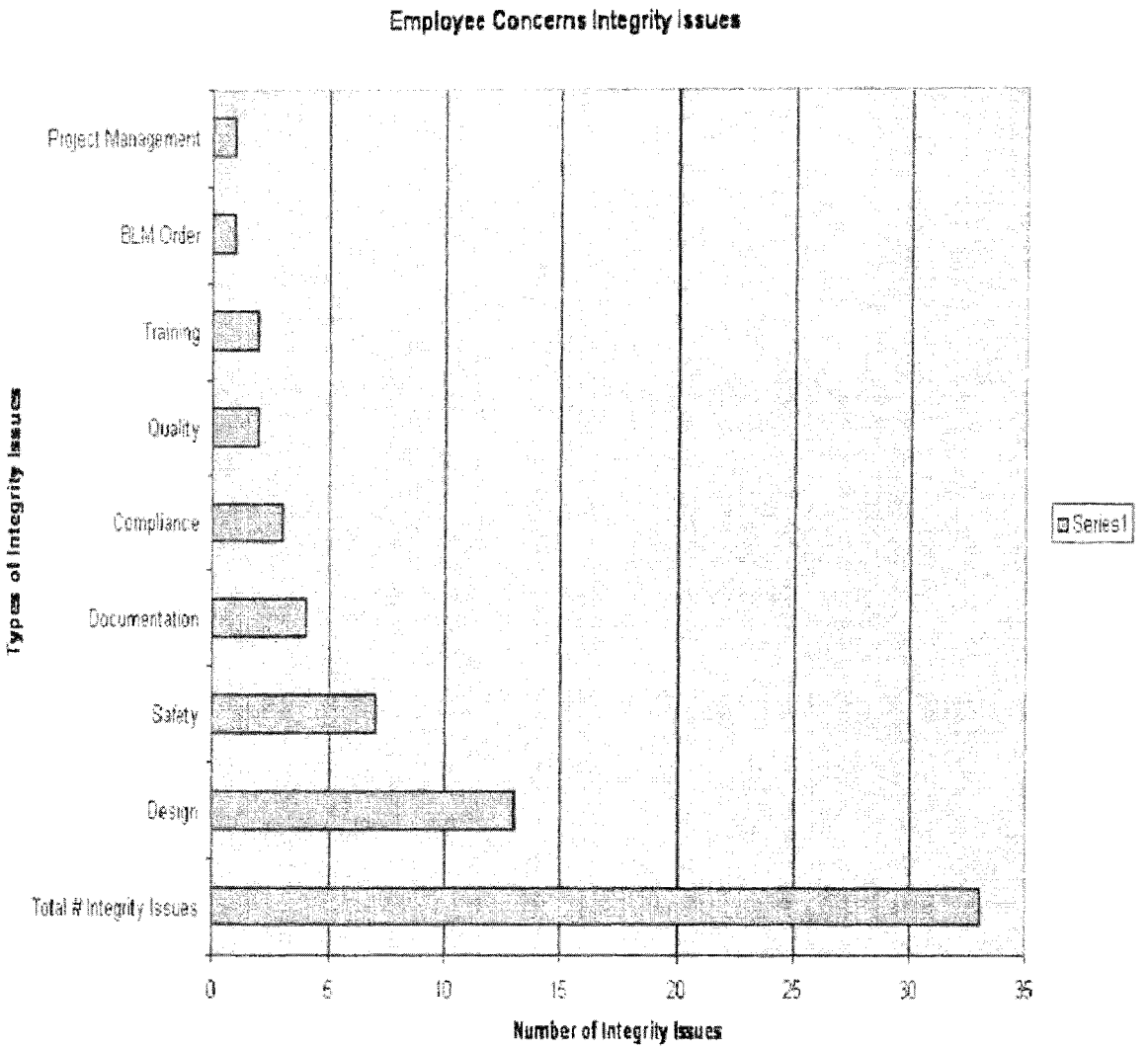
- **Provisions of the Federal Agreement and Grant of Right-of-Way**
- **Codes and Standards expressed or implied per the Grant and Lease**
- **Preliminary Engineering and Notice to Proceed Permit Approval Conditions**
- **Federal/State Agency Regulations and Policies**
- **Local Government Permits and Requirements**

In order to ensure compliance with Alyeska, a system of documentation of compliance and review issues was established with a commitment matrix. This commitment matrix

provides linkages to written correspondence between BLM and Alyeska concerning each of the issues itemized in the matrix. The following diagram summarizes the number of compliance issues based on the commitment matrix according to several issue categories listed along the y axis.



The following diagram shows the variety and relative number of Strategic Reconfiguration issues raised by the employee concern program.



Various State of Alaska agencies have jurisdiction over some of these categories. For example the State Fire Marshall's Office has dominant jurisdiction over fire and gas issues. The State Dept. of Labor with its State Electrical Inspector has jurisdiction over electrical construction and installation inspections. The State Dept. of Labor also has jurisdiction under OSHA for worker safety compliance issues. BLM consulted, coordinated, communicated and cooperated with the various agencies involved with the compliance issues itemized both in the commitment matrix and the employee concerns integrity issues matrix.

5.1 Notice to Proceed:

5.1.1 Did APSC comply with the Grant's Stipulation 1.7 on the Notice to Proceed Process?

The following is a list of the key Notice to Proceed Stipulations in the Federal Agreement and Grant of Right-of-Way that govern the process. Initially, the SR project did not allow sufficient time in their schedule to accommodate the Federal permitting process. BLM required a notice to proceed according to Stipulation 1.7. This stipulation allows the BLM up to 90 days to review and approve the final design. APSC was unable to commit to the 90 day review process and was also unable to provide at the time of submittal complete final designs for such a review. BLM and APSC agreed to a review process based on a theoretical 30 day review of an initial 30% design submission, followed 30 days later by a 60% design submission and in the last 30 days, a 90% of final design submission. Each of these submissions resulted in a series of reviews and resolution of issues. At least three submittals were returned for grossly incomplete and inaccurate information.

- **Preliminary Engineering Design (Stipulation 1.7.2)**
- **Survey Reports (Stipulation 1.7.4.2)**
- **Final Engineering Design (Stipulation 1.7.4.3)**
- **Environmental Studies (NEPA Compliance)**
- **Compliance with Notices to Proceed (Section 10)**
- **Network Analysis Diagram (Stipulation 1.7.3)**
- **Maps Depicting Proposed Construction Locations (Stipulation 1.7.4.3)**
- **Other Data as Requested (1.7.4.3)**
- **Section 29 on Alaska Native Hire**

APSC's inability to provide BLM with a final design package that was considered complete was a chronic problem throughout the processing of the notice to proceed review process. One of the consequences of not having complete design packages was the necessity for the BLM to include several special conditions of approval with various notice to proceed approvals. Although this was agreed to by BLM and ADNR management, it was a weakness in APSC's effort to comply with the notice to proceed stipulation which is founded on the basis of providing a complete and final design. In addition, three notice to proceed application packages were returned due to substantially incomplete design information.

Many technical issues raised during the Preliminary Engineering Design Phase had to be resolved throughout the Detailed Engineering Design Phase. Numerous technical issues from Phase I became known as Phase II Deliverables. Many of these issues were not resolved until after the issuance of several notices to proceed. While this problem was not perceived as a compliance issue it was problematic due to the length of time it took to resolve and close the issues. This entire issue reflected the fact that the "complete final design" was not prepared in the beginning of the project.

5.1.2 *Was the project in conformance with approved permits for the project?*

Compliance issues critical to the startup of Pump Station 9 identified in the Commitment Matrix and Integrity Issue Matrix had to be addressed to the responsible agency's satisfaction prior to the startup of Pump Station 9. Items in the Commitment Matrix were color coded to easily identify those requiring resolution prior to startup. BLM ensured all these issues were resolved prior to the actual physical start up of PS 09. Therefore, at the time of the PS 09 startup, it can be said that the SR Project at PS 09 was in conformance with approved permits.

5.2 Project Planning:

5.2.1 *Were APSC's project management processes followed?*

The simple answer to this question is apparently not. The area of quality as required by section 9 of the Grant is considered a project management weakness. The JPO CMP Report on Quality provides additional details related to the project with quality. APSC also conducted its own audits of the SR Project that highlighted concerns with quality assurance. Concerns with the qualified vendor listing program in APSC were another issue. APSC oversight of their prime design contractors, SNC Lavalin and Hinz did not appear to be satisfactory when viewed from afar in light of the many design issues and concerns raised in the oversight process by JPO. Weakness in providing adequate final designs in the notice to proceed process reflected difficulties in the SR Project Management Process.

5.2.2 *Were project priorities and schedules appropriate to the scope of the project?*

The SR Project's initial scope of designing and constructing automated electrically operated pump stations at pump station 1,3,4,5 and 9 was too broad a scope in the initial schedule that was rolled out at the beginning of the project. The initial schedule was

compressed and short of time and also did not provide for government permit and review processes. As the project evolved, there were changes of schedule and numbers of notices to proceed applications that led to the lengthening of the overall project schedule. Eventually, the projects schedule became out of sync with the initial project goals that the TAPS owners and APSC changed the project's priorities to one of concentrating on finishing the construction and startup preparations at only one pump station, Pump Station 9. Review of the history of the SR Project, concludes that the initial project priorities and schedule were not appropriate to the scope of the initial project.

5.3 Construction:

BLM conducted surveillances and technical reviews throughout the year on many components of the strategic reconfiguration project, many related to quality assurance requirements. There were 92 surveillances and engineering reports conducted on the SR Project. Throughout 2006 and well into 2007, BLM will continue to oversee the installation of new equipment at pump stations 1, 3, 4, 5, and 9, replacement of the turbine-driven mainline pumps with electric-driven mainline pumps at four pump stations (1, 3, 4, and 9), upgrades of the electrical and control systems, field check outs, and start-up activities. The project is expected to extend beyond 2007.

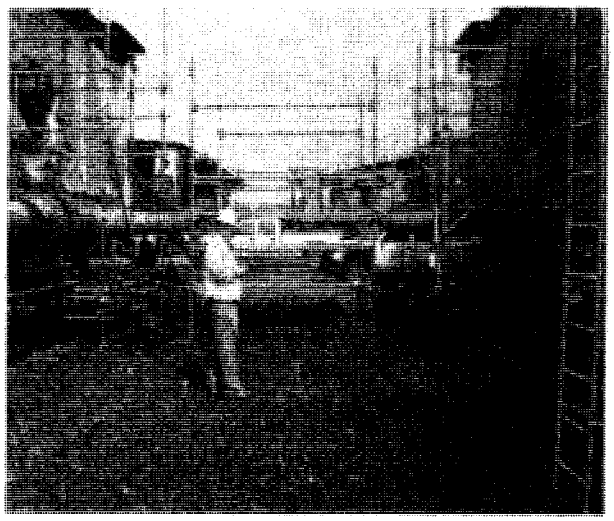


Photo shows BLM Engineer performing compliance surveillance at Pump Station 9, May 31, 2006.

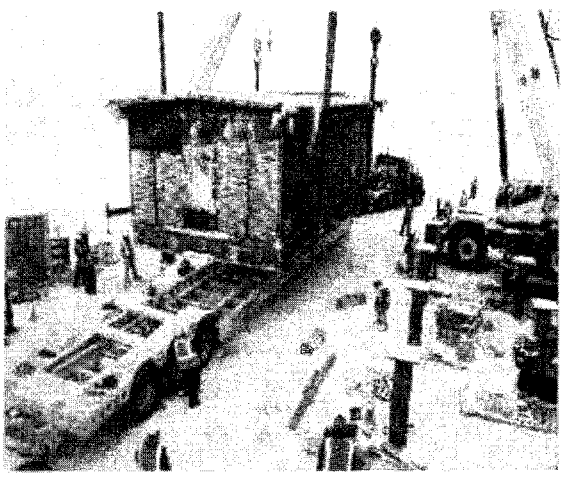
During scheduled mini-shutdowns in October and November of 2006, BLM oversaw APSC testing of the control of remote gate valves by the new Safety Integrity Pressure Protection System (SIPPS). The system has the following functions: a) remote gate valve control; b) pump station safety functions excluding fire; and c) pipeline safety functions.

Strategic Reconfiguration surveillances were conducted with purpose throughout the project. BLM was up front with APSC regarding what milestones/work would be monitored and agency representatives clearly laid out areas of concern and compliance requirements including one that new equipment, particularly equipment manufactured outside the United States (US), would need to comply with Alaska state electric codes. Electrical nonconformities were noted during surveillances at PS 9. As a result, the BLM issued an order to APSC stipulating:

- Remove transformer 39-XFM-4608R at PS 9 and all other electrical items which do not show proper evidence of testing and approval to US standards from service immediately.

- Inspect all electrical equipment installed, or to be installed, as part of SR and other projects for evidence of proper approval to US standards.
- Conduct a complete and thorough investigation to determine how improperly approved equipment was purchased, approved, installed, and placed in service at PS 9 and report to the JPO by December 1, 2006.

The concern was that this unapproved equipment was installed and placed in service despite numerous quality and inspection programs in use by APSC and APSC contractors.



Initial findings were that seven transformers had improper labels. The Manufacturer said the transformers had been tested and approved for US use and worked with APSC to affix the appropriate labels. BLM staff identified questionable labels on resistors.

APSC kept BLM informed of their compliance plans and results as they became available and BLM performed follow-up surveillances.

New Pump Station 4 Pump Module

5.4 Quality Assurance:

5.4.1 Oversight of the Strategic Reconfiguration Quality Program

The Grant and Lease for the TAPS requires review and approval of Alyeska's quality assurance program by the Federal Authorized Officer and State Pipeline Coordinator.

APSC's definition of Quality Assurance is "the planned and systematic actions taken to provide adequate confidence that items, services, or processes will satisfy requirements."

Since monitoring of APSC's Quality Program began in 1989, JPO modified their oversight efforts to a more proactive quality-based position rather than reactive mode. The JPO Comprehensive Monitoring Program (CMP) was designed to evaluate risk threatening pipeline integrity, safety, and the environment.

Congressional sub-committee hearings conducted in 1993 addressed quality problems and the three major owner companies committed to correct problems and actively promote quality throughout APSC. JPO hired contractors to help identify quality program deficiencies and recommend solutions. APSC retained assistance to rework their program and JPO conditionally approved the new program contingent upon their satisfactory implementation.

2006 APSC and JPO evaluations of the program verified that internal controls of quality were not satisfactory. Deficiencies identified were, for the most part, the same issues that have been problematic since 1993:

- document control,
- project performance monitoring,
- training,
- vendor evaluations,
- design control and,
- inspection.

The order BLM issued regarding labeling on electrical equipment elucidated a breakdown in APSC's SR quality program. Issues concerning the SR quality program were numerous throughout JPO's SR project reviews.

A JPO technical review of APSC's Qualified Vendor List to the Requirements of their Quality Assurance Manual concluded that the requirements of the Grant and Lease lacked objective documented evidence to support APSC's compliance. Only a small sample of APSC's contractors was reviewed for evaluation and qualification of placement on their Qualified Vendor's List but was considered a good indicator of the status of the overall program. JPO requested APSC to develop a corrective action plan to audit the process to evaluate qualified vendors and actions to be taken to eliminate any gaps with the process of identifying, evaluating and qualifying contractors/vendors that provide materials or services on TAPS until there is assurance of compliance to the requirements of the Grant and Lease.

APSC has rewritten their Quality Program a number of times since 1993. APSC modified their program to include internal controls with Grant and Lease requirements. This makes it easier for BLM to monitor APSC Management System processes for compliance. BLM has recognized Alyeska's implementation of its Quality Program as an ongoing compliance issue.

5.4.2 *Was project management and oversight adequate?*

APSC started the SR Project in 2001 with an initial goal of bringing it online in a couple of years. The project initially did not include the obvious requirement to obtain State and Federal permits into the projects schedule. APSC exerted a minimal degree of oversight over their prime engineering design contractor, SNC Lavalin and Hinz. As the project fell behind and engineering problems mounted, APSC began to make project management changes, personnel changes, and took over more direct project management functions from SNC. Initially and at various times, APSC lacked adequate quality assurance of material received after procurement resulting in some significant and probably expensive repairs. For example, upon installation of the turbine generators at Pump Stations 1, 3 and 4, it was discovered that various components of the generators had been subjected to undesirable corrosion. This resulted in removing some of the turbine generators and shipping them back to the manufacturer in Great Britain for refurbishment, reshipment and reinstallation. APSC's implementation and SNC implementation of quality program procedures was not always adequate. A separate

CMP Report addresses the quality program issues. Please refer to that report for further details of those problems.

There were some notable positives about the SR Project. Project objectives were specific, measurable, results focused and time limited. PS 9 start up was finally achieved in February 2007. The project's engineering concept was appropriate to the project's objectives. The project's design basis and criteria were adequate with possible exception of issues related to environmental conditions. Design criteria was adequate for the project concept. Results from numerous special studies;e.g., Reliability Centered Maintenance Studies, Process Hazard Analyses, System Integrity Levels and Hazardous Operations analyses were not only adequate but invaluable to the success at PS 9 and the overall project. Requirements and specifications for the System Integrity Protection System were well designed and managed as exemplified by vendor testing of software, Factory Acceptance Testing, Site Acceptance Testing, Functional Check Out and Commissioning of the SIPPS system.

From an overall perspective, the SR project for Pump Station 9 was delivered within an amended schedule and met project objectives for Pump Station 9. Overall change control utilizing the Field Query Requests, and Site Instructions with some improvements at BLM's request functioned effectively. The fundamental design concept for Strategic Reconfiguration at Pump Station 9 has been successful. This same design with the addition of turbine generators is being constructed at Pump Stations 1, 3 and 4, one station at a time in order to keep human resources concentrated and focused in an efficient manner. Many of the successful FCO, Commissioning and Start Up procedures used at Pump Station 9 will be employed again at Pump Station 3 which is the next station closest to a start up phase later in 2007 or early 2008.

Finally, employee concerns were a significant component of the oversight process by both Alyeska and JPO. Many issues were raised and resolved in the ECP process and documented in the Integrity Issues Matrix.

5.4.3 *Were project Audits appropriate and adequate?*

APSC conducted several audits of the SR project. The scope of the audits that APSC did conduct was appropriate. Given the myriad number of problems encountered by this project, it might be argued that the number and scope of the audits were not adequate. The timing of the audits is also significant. Had more audits been conducted to oversee the work of SNC and Hinz, then some of the earlier project management problems might have been identified and addressed. APSC audits did not become effective until APSC took over direct project management themselves.

5.4.4 *was there adequate project management of the procurement, and materials receipt functions?*

APSC's management oversight of SNC's procurement process was probably not adequate considering the numerous instances where some questionable materials showed up later. The rusted turbine generators from Siemens might be one example. Fire and gas detectors that were purchased without being rated to design criteria temperature

requirements are another example. The issue of whether the wire and cable that was procured met design criteria for temperature and seismic applications was not recognized as a problem until the JPO identified it long after the material was procured and much of it installed in the field. A variety of electric component issues around the VFDs, ABB Switchgear, clearance issues and so forth were further indications of a lack of adequate oversight by APSC of SNC and Hinz's roles in procuring and acquiring material for the SR Project.

Another example of concerns in the area of procurement and material receipt management by the SR project is described by the following.

Listing and Labeling by a Nationally Recognized Test Laboratory (NTRL) is a requirement of the National Electrical Code (NEC) as covered in Sections 90.7, 100, 110.3, and others. The requirements of the NEC are adopted by the State of Alaska as covered by 8 ACC 70.025. The pipeline is required by the Grant and Lease to comply with industry standards and federal and state laws.

Prior to the SR project, the major emphasis of the NEC NRTL requirements was by the State Electrical Inspector. With the SR Project, conformance of code requirements including NRTL listing and labeling was also shared by the BLM Technical and Design Review Group (T&DR). The T&DR reviews of the technical information submitted for Notice to Proceed (NTP) approval included examination of code compliance and properly inspected electrical equipment. A number of conversation and letters to APSC emphasized the requirements for conformance to code requirements and proper listing and labeling of electrical equipment.

During module construction and initial installation, a number of non-NRTL labeled transformers were discovered in the Variable Frequency Drive (VFD) modules. These transformers were removed and replaced with correctly approved units.

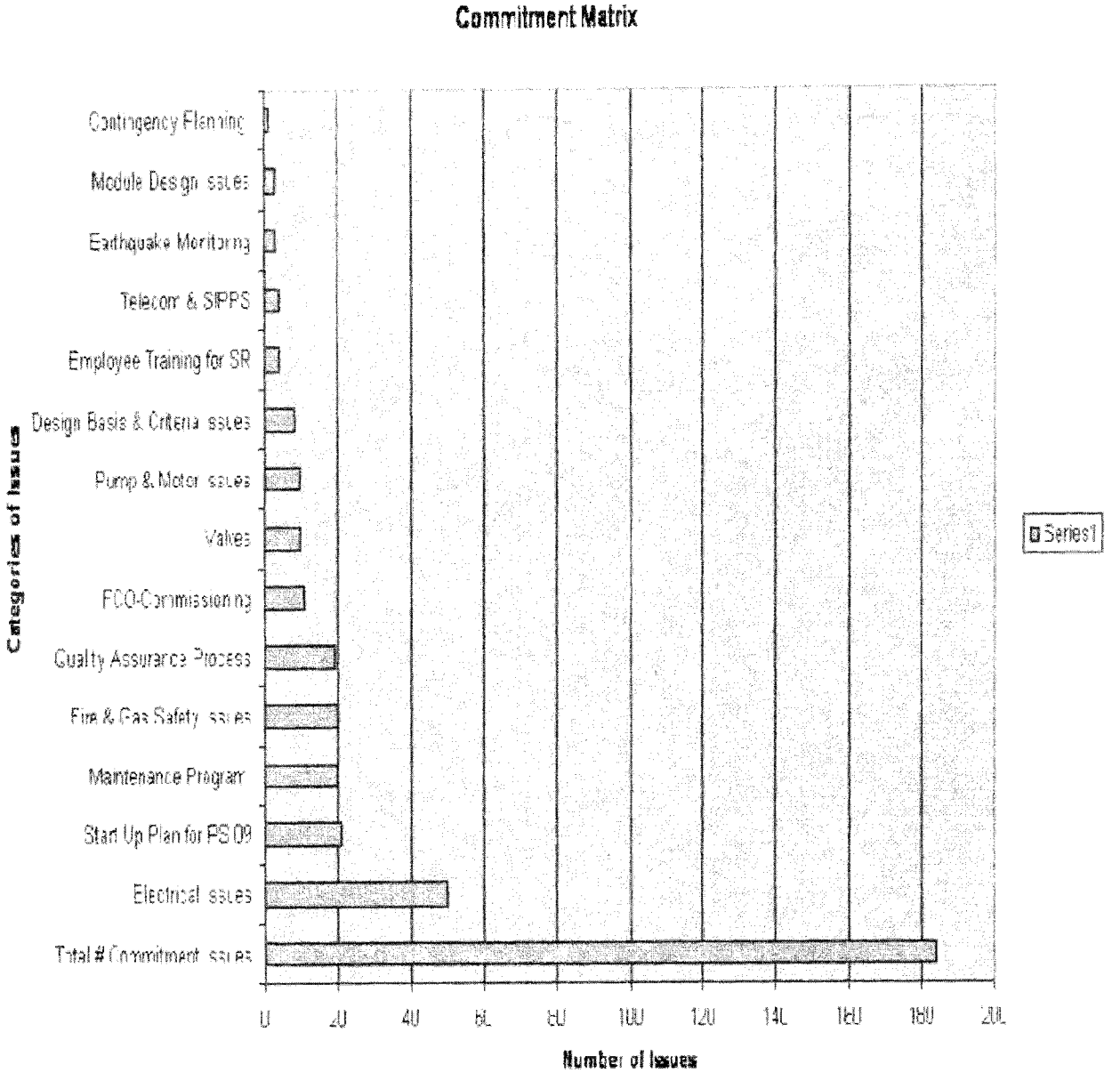
An improperly listed transformer in the Control Module was later discovered by the JPO Electrical Engineer in October 2006. Based on the discovery of this improperly listed transformer, an order was issued by the BLM (Letter 06-313-WW dated Nov. 6, 2206)) to inspect all SR electrical equipment and remove all improperly listed equipment from service. An additional letter 06-099-RN was sent to APSC further defining and restating the requirements for APSC to inspect all SR electrical equipment and prepare a report stating how the mislabeled equipment was inappropriately installed and placed in service.

5.4.5 *Was oversight of project FCO, Commissioning and Start Up adequate?*

APSC's management oversight of the SR project improved substantially after the departure of the original SR Project Manager and Coordinator. Perhaps one of the best bright spots in management of the project occurred in the FCO Phase, Commissioning Phase and the Start up Phase. Each of these post construction phases were well organized, staffed, managed and appropriate and careful progress made leading to the successful startup of PS 9.

Three surveillances conducted during the SR Project resulted in three unsats. Two of these (FBU-05-S-034 & 035) pertained to lack of erosion control of excavated material during the piling operations, and one surveillance (ANC-06-S-423) concerned documenting observations at PS 09 regarding the status of completeness of the VFD Module and Pump Module Turnover Binders and the inaccurate/incomplete redline drawings in the Strategic Reconfiguration (SR) project's Functional Checkout (FCO) database. This surveillance deemed this issue significant because of the potential for the same observations occurring at the other SR Pump Stations 1, 3, 4 and 5. Alyeska recognized the importance of this documentation issue and applied sufficient resources to ensure the problem was properly corrected. Follow-up surveillances were later conducted to ensure corrective action had occurred.

The BLM identified flaws in Alyeska's documentation process regarding the drawings database used for FCO, red lined drawings, Field Query Requests (FQRs), Site Instructions (SI's), and FCO documentation. APSC management of the post construction phase went quite well. An unfortunate undesirable event occurred in which a work crew was too close to the oil storage tanks during a relief event in which both people and facilities could have been seriously injured. This occurrence could have been avoided if better supervision and communications had been employed. The construction phase at PS 9 and the subsequent FCO, Commissioning and pre startup work contributed greatly to the successful startup at PS 9. The following chart shows the various kinds of compliance issues to which Alyeska committed them to either implement a corrective action or provide the BLM with adequate information to resolve the issue of concern. The data presented in the chart below was derived from the commitment matrix of issues. These issues also represent the vested interest of several jurisdictional agencies within the JPO. For example, the State Fire Marshall's office has jurisdiction over fire and gas issues, the Department of Labor with its Electrical Inspector has jurisdiction over electrical inspection issues and the Department of Labor also has jurisdiction over OSHA worker safety issues, and the Bureau of Land Management has broad jurisdiction over a multitude of issues governed by the Federal Grant of Right-of-Way.


Commitment Matrix
Contingency Planning
Module Design sues
Earthquake Monitoring
Telecom & SIPPS
Employee Training for SR
Design Basis & Criteria sues
Pump & Motor sues
Valves
FCO-Commissioning
Quality Assurance Process
Fire & Gas Safety sues
Maintenance Program
Start Up Plan for PS 09
Electrical sues
Total # Commitment sues
Categories of Issues
0
20
40
60
80
100
120
140
160
180
200
Number of Issues
Series1

5.4.6 *Were project communications adequate?*

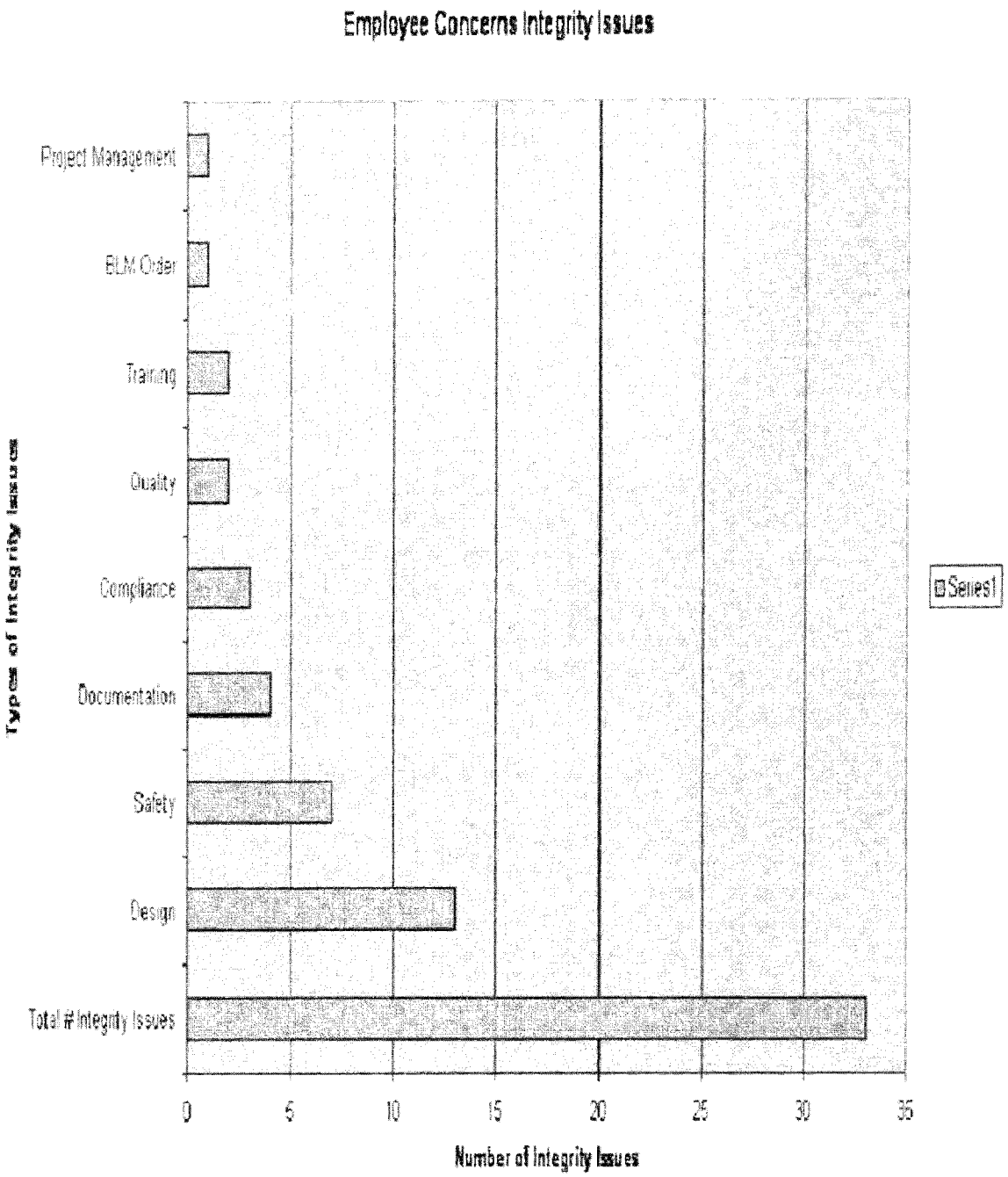
This report can not adequately address internal communications within APSC or SNC. However, we can report on the adequacy of their external communications and coordination with JPO, employees based on the Employee Concerns Program (ECP) program and perhaps a few external entities. The degree to which adequate communication from JPO through the original SR Project Management Team to the SNC contractors has always been in question. The great difficulty JPO had in getting adequate explanations, technical interaction with the contractors and assurance of JPO communications to the appropriate technical contractors and their responses was a concern throughout the project. On the other hand, communication and coordination among the SR construction and APSC teams working at PS 9 appeared to have been done quite well. In addition, APSC and contractor communication with JPO personnel while at PS 9 appears to also have been conducted quite well.

5.4.7 *Were outside consultants and experts effective and appropriate?*

APSC employed numerous consultants and contractors during the course of the SR project in general and specifically at PS 9. APSC employed two firms, SNC Lavalin and Hinz of Canada as their prime contractors for design engineering of the SR Project. Other consultants of a specialized nature were also employed on a case by case basis to address specific issues that arose. SNC and Hinz were limited in their effectiveness given the boundaries of the project assigned to them at the start. The project performance began to improve when APSC assumed direct project management.

6.0 Employee Concerns:

Numerous Alyeska employee concerns were filed during the Strategic Reconfiguration Project. These concerns were subsequently tabulated and an action matrix maintained to track their resolution. Various employee concerns were investigated and resolved through either corrective action by Alyeska or explanations and discussions with the relevant employees. These concerns have been tabulated by such categories as Safety, Design, Compliance, Quality, Documentation, Project Management, Training, and BLM Orders. The following chart shows the greatest number of employee concerns was related to design, safety, documentation, quality and compliance issues. Employee concerns were resolved prior to the start up of PS 9.


Employee Concerns Integrity Issues
Project Management
BLM Order
Training
Quality
Compliance
Documentation
Safety
Design
Total # Integrity Issues
Types of Integrity Issues
0
5
10
15
20
25
30
35
Number of Integrity Issues
Series1

7.0 Future BLM Strategic Reconfiguration Project Work Commitment:

BLM staff at JPO will continue to monitor project compliance and performance in the upcoming restart of construction, FCO, Commissioning and eventual Start Up at Pump Station 3. Alyeska plans to conduct the construction thru start up process at one pump station at a time. BLM will be actively reviewing Alyeska's construction and Strategic Reconfiguration Project performance at Pump Station 3. BLM and the DNR have prepared oversight work plans for oversight of Pump Station 3.

8.0 Conclusions:

- Performance of the SR project was compromised by several factors. In the initial stages, a highly aggressive schedule and scope led to problematic engineering designs, project management and procurement decisions.
- Secondly, the absence in recognizing the necessity of government permit acquisition requirements and time frames led to inadequate permit package submissions. These inadequacies led to numerous governmental concerns with a wide variety of design aspects and requests for additional information.
- Communication and coordination both internally within the project teams and with the government agencies at JPO were quite challenging consequences of the strategic flaws in the project.
- Many of these challenges were finally corrected after APSC took more direct charge of the project with its own organization. Further, once the construction effort was focused on finishing construction of PS 9 and preparing it for start up in February 2007, project performance improved. The post construction FCO, Commissioning and Start Up phases were conducted with a high level of performance along with JPO oversight. This effort led to a successful start up at PS 9 in February 2007.
- The project's engineering concept was appropriate to the project's objectives. The project's design basis and criteria were adequate with the possible exception of issues related to environmental engineering conditions. Design criteria appeared adequate for the project concept
- Lessons learned from the effort at PS 9 will assist in aiding a successful completion of construction, FCO and Commissioning phases at PS 3 and others.

9.0 Recommendations:

- Alyeska needs to implement lessons learned that were shared with the JPO in a joint meeting held on 5/10/2007;
- Alyeska needs to improve its interface with JPO through better coordination, regular communication, efficient and accurate information sharing, improved documentation, providing accurate schedules of work activities, better advance notice of field events of interest or concern to JPO. JPO interface at PS 9 could serve as a model for further field oversight at PS 3 on the basis of the BLM's Pump Station 9 oversight experience to oversee status of construction, FCO, Commissioning and Start Up activities at Pump Station 3;

- Alyeska needs to improve its assessment of future performance of its SR project management processes for Pump Station 3 to identify potential problems or failures and to report such issues promptly to the JPO and to fully implement corrective actions in a more timely manner.
- Alyeska needs to ensure that submitted final design packages as part of a Notice to Proceed Application are at least 90% complete.

10.0 References:

[1] Bureau of Land Management, 2002, "Final Environmental Impact Statement for TAPS Right-of-Way Renewal"

[2] JPO ANC-04-E-011, 4-24-2004, "TAPS Strategic Reconfiguration Technical and Design Review Work Plan."

[3] Bureau of Land Management, 2004, "Environmental Assessment of the Proposed Reconfiguration of the Trans-Alaska Pipeline System"

11.0 Signatures:

Joe Correa
T&DR Engineering Supervisor

Date 6/14/2007

Jerry Brossia
Authorized Officer

Date 6-14-07

Joe Dygas
Engineering Review Specialist

Date 6-12-2007