Lessons (Not) Learned Programs

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Alyeska Pipeline Service Company

Trans-Alaska Pipeline System (TAPS)

Company Overview

- TAPS is a crude oil pipeline
- TAPS began operations in 1977
- 2018 throughput average was 509 thousand bpd
- Peak throughput in 1988 was 2.1 million bpd in 1988
- Almost 18 billion barrels moved by TAPS since 1977
Company Overview

- 48-inch diameter pipe
- 800-miles long
  - 420 miles above-ground
  - 380 miles below-ground
- 178 mainline valves
- 800 Alyeska employees
  - 95% live in Alaska
  - 20% are Alaska Native
- 1,000-2,000 TAPS contractors (Seasonal)
  - 70 percent of TAPS contractor companies are based in Alaska

What are Lessons Learned?

What are your thoughts?

“A Lesson Learned is knowledge or understanding gained by experience. The experience may be positive, as in a successful test or mission, or negative, as in a mishap or failure. A Lesson Learned provides recommendations for avoiding a repetition of failure (or obtaining a repeat of success).”


“The learning gained from the process of performing the project...the purpose of documenting lessons learned is to share and use knowledge derived from experience to:

- Promote the recurrence of desirable outcomes
- Preclude the recurrence of undesirable outcomes

As a practice, lessons learned includes the processes necessary for identification, documentation, validation, and dissemination of lessons learned.”

Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK), 5th Edition
Why are Lessons Learned Important to Compliance?

What are your thoughts?

Here are a few of mine:

- Identify and fix process/procedural gaps
- Prevent the recurrence of problems
- Prevent the escalation of consequences
- Continuous improvement leads to improved performance
- Improved communication (micro and macro)
- Supports a learning organization

Why Lesson Learned Programs Fail?

In a study of lessons learned and personal development for enhancing employee knowledge, researchers found eight barriers to capturing and using lessons learned:

1. Lack of time – *No time to stop and reflect, we have more work to do*
2. Lack of management support – *The “kiss of death” to any program*
3. Employee resistance to sharing – *Fear of admitting failures (cultural)*
4. Poor IT infrastructure
5. “Stove-piping” – *aka, “Silos”*
6. Accessibility of knowledge – *Now where did I file that?*
7. Not invented here syndrome – *We know better than others*
8. Lack of real-time integrated database – *The right information, being in the right hands, at the right time*

➢ Result = Repeat Failures

When Has a Lesson Been Learned?

A lesson identified becomes a lessons learned only after the lesson has been implemented into a business control or business activity.

1. When Identified:
   - Proactively built into process/procedure/checklist
   - Proactively built into training/orientation

2. When Retrieved:
   - Built into planning of a future business activity

➢ Remember that the primary objective of a Lessons Learned program is the learning!

What Some Experts Say

“Organizational learning means the process of improving actions through better knowledge and understanding.”

“An entity learns if, through its processing of information, the range of its potential behaviors is changed.”

“Organizations are seen as learning by encoding inferences from history into routines that guide behavior.”

“Organizational learning occurs through shared insights, knowledge, and mental models...[and] builds on past knowledge and experience”
Keys to a Successful Lessons Learned Program

1. **Standardize and simplify the methodology**
   - Formalize and Secure Management Support
   - Implement Companywide Process/Procedure

2. **Identification of lessons should be routine**
   - Build it in as a Routine Step to Existing Processes and Activities
   - Capture Clear and Actionable Lessons

3. **Take action on lessons identified**
   - Implement Solutions to Improve Processes/Procedures/Checklists/Training
     - Becomes a lesson learned

4. **Automate the retrievability**
   - Utilize Technology to Store and Share Past Lessons
   - Utilize Technology to Quickly Find and Use Past Lessons (User Focused)

5. **Plan future work with lessons identified**
   - Becomes a lesson learned

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What our Solution Looks Like

1. **Companywide process and expectations**
   - Management system expectations
   - Business process for lessons learned

2. **Technology tools (portal and search)**
   - For capturing and storing lessons (now)
   - For searching and finding lessons (future)

3. **HLVEs (internal major learnings)**

4. **External major learnings**
What our Solution Looks Like

Companywide Process/Standard

<table>
<thead>
<tr>
<th>Lessons Learned Process</th>
<th>Activities and Process</th>
<th>Key Deliverables</th>
<th>Reference</th>
<th>Who is accountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct lessons learned</td>
<td>Lesson identified</td>
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<td>Any PMI Manager</td>
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<tr>
<td>Direct lessons learned</td>
<td>Lesson documented</td>
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<td>Initiator</td>
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<td>Direct lessons learned</td>
<td>Lesson is effective</td>
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<td>Accountable Manager</td>
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<tbody>
<tr>
<td>Lessons learned captured</td>
<td>Communication plan</td>
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<td>Initiator and quality team</td>
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<tr>
<td>Lessons learned distributed</td>
<td>Lesson is distributed to stakeholders</td>
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<td>Process Owner &amp; Quality Team</td>
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<tr>
<td>Lessons learned shared</td>
<td>Lesson is shared via email</td>
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<td>Process Owner &amp; Quality Team</td>
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<tr>
<td>Lessons learned reviewed</td>
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➢ All other business processes capture lessons learned

What our Solution Looks Like

Lessons Learned Portal

[Diagram of Lessons Learned Portal]

Click here to search Lessons Learned
What our Solution Looks Like

Lessons Learned Search

A-NET Home  Lessons Learned Portal

<table>
<thead>
<tr>
<th>LESSONS LEARNED</th>
<th>Find Results</th>
<th>Advanced Search</th>
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</thead>
<tbody>
<tr>
<td>M1 Lesson Libraries and TAPS Documents</td>
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<tr>
<td>External Lessons</td>
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<td>HLVE Bulletins</td>
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<td>Maintenance Awareness Bulletins</td>
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<td>Shutdown Lessons</td>
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What our Solution Looks Like

High Value Learning Events

HLVE BULLETIN 2018-10
NLI F. 29347 – West Fire Water IWWS Vapor Intrusion

Common household "P-trap" type water seal

Alyeska pipeline

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Questions?