



Coming Down the Pipe

News from the Joint Pipeline Office

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Ray Elleven (JPO) and Sue Britt (APSC) walk towards the BWT thermo oxidizer units at the Valdez Marine Terminal (April 2009)

BWT Biological Treatment Tank (BTT) Replacement Project

Alyeska Pipeline Service Company (APSC) is making a strong push to complete work on its ballast water treatment (BWT) facility biological treatment tank (BTT) replacement project at the Valdez Marine Terminal (VMT) this summer. The BWT is the primary facility used to separate oil from ballast water and treat waste water at the VMT. The treated water consists of snow melt, rain run-off, and industrial waste water at the VMT and ballast water recovered from some tankers arriving at the terminal.



DAF cell with cover—phase two of BWT separation process

For almost its entire operational life, the BWT used a three-part process to separate and treat “dirty ballast water.” The first part of the system involved the use of gravity separation tanks that allow for heavy particle separation of water and oil. Once separated, the water was transferred to a cell for DAF (dissolved air flotation) for further treatment. The DAF process involves injecting dissolved air into

the oily water, under pressure. The released air forms bubbles that adhere to finer, suspended oil remaining in the water, causing the oil to float to the surface for removal by a skimmer. The final phase was the biological treatment tanks that used bacteria to literally consume the remaining oil – essentially a form of bio-remediation.

Following the Exxon Valdez Oil spill in 1989, the OPA 90 legislation mandated that within 20 years only double-hulled tankers can call on the VMT (the last single-hulled tanker will be removed from service to the VMT in 2011). This event will substantially reduce the amount of oily water to be processed making use of the biological process non-viable.

Prospectively, the BWT will continue to process run-off at the VMT utilizing a three-part process. The first two phases remain essentially the same: gravity separation and induced gas flotation (think DAF with a gas hood to remove gases produced during the separation

process). The final, new phase involves a mechanical separation process, which involves the use of thermal oxidizers to process harmful discharged gases called BTEX (Benzene, Toluene, Ethyl benzene & Xylene). The implementation to mechanical separation means that the BWT will require an air permit in addition to the Federal National Pollutant Discharge Elimination System (NPDES) waste water discharge permit. The air permit was modified and approved in June 2008 and is managed by the Alaska Department of Environmental Conservation, Air Quality Division. The current NPDES waste water discharge permit is regulated by the EPA and is scheduled for renewal in June 2009.



Exterior shot of DAF cell area and cover. Photo by Mark Morones (JPO)

The current plan is for aspects of both systems to remain in service at the BWT until the new system has shown it will work as expected. The implementation process switching out the BTT for the mechanical separation process has been monitored continuously by Rhonda Williams and Joe Hughes with the BLM and Ron Doyel with the Alaska DEC. Rhonda, Joe and Ron work out of the JPO Valdez field office. They have been involved with this project during the design review process and weekly through construction.

Strategic Reconfiguration Update: Forward Flow Scheduled for Pump Station 4 this May

In the latest phase of Alyeska Pipeline Service Company's efforts to complete strategic reconfiguration (SR) of the TAPS, forward flow is tentatively scheduled to take place at Pump Station Four (PS04) the week of May 18th. PS04 is located north of Atigun Pass, approximately 144 miles south of Prudhoe Bay. This start up will be the third of four planned start ups for pump stations converted to operate on the new SR equipment. Work is complete on Pump Stations 9 and 3. Preliminary work has begun on PS01. APSC reports that a redundant 65kw black start redundant generator was commissioned and is ready to operate, if needed. Recent problems with the heat trace, insulation and jacketing have been resolved and all repair work is complete. APSC is currently resolving concerns with pump number two. State and federal engineers with the JPO's technical and design review team as well as inspectors with the state fire marshal's office and the Alaska Department of Labor and Workforce Development have monitored the progress of this project and have conducted onsite inspections. JPO engineers will be on location when forward flow commences.

Road to Umiat – AK DOT&PF Proposes Construction of an All-Season Road

The Alaska Department of Transportation and Public Facilities (DOT&PF) is proposing to construct an all-season road from the Dalton Highway to Umiat. The Foothills West Transportation Access Project will allow access to potential oil and gas resources in the northern foothills of the Brooks Range to facilitate oil and gas exploration and development, as well as access to NPRAs from Umiat.

The proposed project is anticipated to be constructed in two phases. Phase 1 of the project will intersect the Dalton Highway and proceed approximately eighty miles to the Gubik Oil and Gas Fields east of the Colville River. Phase 2 construction would extend the road fifteen miles to the Colville River and potentially access the state airport at Umiat by bridge.

Currently DOT&PF is preparing for the upcoming 2009 summer field season to perform engineering and environmental field studies on potential road corridors within the project study area. These studies are being performed in advance of developing permit applications for the project. Specific engineering field studies anticipated include imagery acquisition; topographic mapping; hydrology investigations; geotechnical investigations; and road alignment evaluations. Anticipated environmental field studies include wetlands mapping; fish and wildlife evaluations; subsistence evaluations; and cultural resource identification.

Umiat is located adjacent to the Colville River approximately 140 miles southwest of Deadhorse, Alaska and 340 miles north-northwest of Fairbanks.

For additional information please contact Ryan Anderson, Engineer/Architect III with the AK DOT&PF, at: ryan.anderson@alaska.gov.

JPO Office Move

On May 5 it was announced internally that a general services agreement (GSA) had been signed formally authorizing the move of federal personnel from the Bureau of Land Management, U.S. Department of Transportation (PHMSA) and Office of the Federal Coordinator to a new

location, associated with the JPO will be moving to 188 Northern Lights in midtown Anchorage. The Alaska Department of Natural Resources is working to reach an agreement to co-locate JPO's state personnel in the same building. The move is expected to commence this July.

Keeping your head and your focus is critical when responding to emergencies

By Mike Wrabetz - Opinion piece

What is an emergency? What are the hallmarks that make a situation an emergency, and what are the hallmarks of a successful reaction to an emergency situation? Heck, what is the definition of success when reacting to an emergency situation? The answers to these questions are interrelated.

In the JPO, our professional world is a bureaucratic world, which is also a legal world. Not surprisingly, then, an emergency occurs whenever someone with the appropriate authority declares it as such. Another way of looking at it is that you don't have to worry about whether or not something is an emergency, someone will tell you. Somehow that's not comforting, and that even trivializes the subject, doesn't it? After all, isn't an emergency something important or threatening? While the answer to that question is yes, my point here is tied to advice that is always timely; don't panic. Focus on the task in front of you.

If you have a specific assignment during an emergency, your duties will most likely be the same as, or very close to, your normal duties. However, what is likely to be different is the group of people you interact with and how you interact with them, and the logistics and infrastructure you rely on. You, your agency counterparts, and your industry counterparts may well be organized in an *Incident Command System* (ICS) organization. Effective communication and interaction with them depends on your knowledge of ICS structure. Those are the same keys to getting the most effective support from whatever infrastructure is available to you, too. You need to know if your resources are being managed as they normally are, or are they being managed by a Unified Command or other command structure.

Have I strayed from the original questions? Not really. Success to you, and me, is accomplishing our assigned tasks. Leave the big picture to the six o'clock news, and whoever is in charge. Emergency situations, whether natural or manmade, stress the infrastructure and demand rapid adaptation to physical changes, whether lives are at stake or resources are threatened. The hallmarks of a successful response are commonly accurate information gathering, good communications and organization and effective decision making. Your part in an emergency is going to be based on skills and abilities you have already mastered. That's why our past training has focused on organization and information flow through ICS. We plan to present future articles that will deal further with these issues, as well as any other related topic that's appropriate.

(Mike is an Environmental Protection Specialist with the JPO and a member of the JPO's Oil Spill Prevention and Contingency Team)

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