DISTRICT TRIP REPORT

Project: Denali Commission Moorings Points Phase 4

Description: White Mountain Trip Report

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George Kalli and Nathan Epps traveled to the Seward Peninsula community of White Mountain, Alaska on September 1st via commercial air to conduct a site visit related to potential installation of barge mooring points in the community. A total of two barge landing sites were investigated during the site visit. An overview of the community and barge landing sites is included as Figure 1. While in White Mountain we met with the City Clerk, Amy Titus, who led us to the community fuel header. We also met with the Tribal Administrator, Dorothy Barr.

Following is a summary of the information learned during the site visit.

Figure 1. White Mountain Barge Landing Locations. Fish River flows from top to bottom.

GENERAL

White Mountain is located on the west bank of the Fish River, near the head of Golovin Lagoon, on the Seward Peninsula. It is 63 miles east of Nome. Navigation to White Mountain is about 8 river miles upriver from Golovin. Due to the shallow conditions, shallow draft barges, and sometimes guide vessels, are required to prevent beaching.

White Mountain has a transitional climate with less extreme seasonal and daily temperatures than Interior Alaska. The Fish River freezes up in November; break-up occurs in mid to late May. According to the 2010 U.S. Census, there were 190 people living in White Mountain. The entire population depends on subsistence hunting and fishing, and most spend the entire summer at fish camps.

FUEL LANDING SITE

The fuel header is upstream from the village along a rocky outcrop along the Fish River. From the header, fuel pipes head up a cleared gap in the outcrop to the tank farm located above (Photo 1). There is no direct access to the tank farm from this landing site.

Along the base of the outcrop there is a narrow band of rocky soil that could present difficult equipment access and drilling conditions (Photo 2).

Tie-down cables were found 110 feet upstream and 90 feet downstream of the fuel header (Photos 3 – 4). According to the Tribal Administrator, these tie-down cables were installed by contractor STG as part of the construction of the Denali Commission funded tank farm. According to Alaska Department of Commerce data, this project was completed in 2005.

The existing tie-down cables at the fuel landing appear to be sufficient and in good working order. Installation of additional mooring points at this location are not recommended.

Photo 1. Fuel Header

Photo 2. Narrow band of rocky soil at base of outcrop

Photo 3. Existing upstream tie-down cable

Photo 4. Corps employee standing adjacent to existing downstream tie-down cable

FREIGHT LANDING SITE

The freight barge landing consists of a small gravel ramp perpendicular to the Fish River. It is located within a broad, shallow sloped beach (Photo 5).

There were many skiffs beached along the bank of the river both upstream and downstream of the landing ramp. They were all secured with an anchor placed into the beach material.

According to the Tribal Administrator, White Mountain does not receive annual freight shipments. This landing site is only utilized during construction projects in the village. Due to the shallow nature of the Fish River, the village store receives their goods by plane as opposed to barge.

Since this landing site only is utilized on an occasional basis the installation of mooring points are not recommended.

Photo 5. Freight Landing Site.

FUEL TANKS

While not specifically part of the scope of this site visit, the team looked at the fuel storage tanks at White Mountain. The tanks were built by STG in 2005 and appear to be in good condition based on visual inspection of the exterior. The team noted significant rust on welded pipe connections throughout the project. Straight runs of pipe did not show much corrosion, but at

welds, and pipe fittings, the exposed pipe surfaces were oxidized (Photos 6, 7 and 8). It appears that the pipes connecting the tanks and their fittings were not coated after the pipeline and site piping were assembled. Without reference to contract documents, it was not known if coating the piping after welding was required for this project.

Photo 6. Corrosion at pipe welds and fittings above the fuel headers.

Photo 7. Corrosion at pipe welds and fittings along the tank farm perimeter.

Photo 8. Corrosion at pipe welds and fittings inside the tank farm perimeter.

RECOMMENDATIONS

No mooring points are recommended in White Mountain. The existing fuel landing possesses recently installed and competent tie down cables. The community does not receive regular freight shipments by barge, therefore mooring points are not recommended at the freight landing at this time. Although outside the scope of this site visit, corrosion was noted at the tank farm. Effectively addressing the corrosion could extend the useful life of the tank farm.