COOK INLET REGIONAL CITIZENS ADVISORY COUNCIL Anchorage, Alaska November 30, 2017 Approved Minutes

Members Present: John Williams, Robert Peterkin, Gary Fandrei, Carla Stanley, Paul

Shadura, Rob Lindsey, Grace Merkes, Bob Flint, Deric Marcorelle, Walt Sonen

Members Absent:Molly McCammon (excused), Michael Opheim (excused), Kyle CrowStaff Present:Michael Munger, Susan Saupe, Vinnie Catalano, Jerry Rombach, Linda

Giguere, Maritta Eledge, Vaito'a Heaven, Cindy Sanguinetti

Others Present: Lori Nelson, Hilcorp; Dick Prentki, EMC; Graham Wood, ADEC; Jason Walsh, DNR; Rich Novcaski, Hilcorp/ Harvest; Tim Robertson, Nuka Research; Captain John Schneider, Andeavor Simulator Training; Larry Burgess, BlueCrest Energy Alaska; Heather Crowley, BOEM, Shannon Miller, ADEC; Jennifer Morell, State Pipeline Coordinators Section; Lt. Bart Buesseler, NOAA's Office of Coast Survey; Matt Brown, Hilcorp; Jonathon Schick, Division of Oil & Gas

1. CALL TO ORDER/ APRPOVAL

President John Williams called the meeting to order at 12:51 pm. Roll was called, establishing quorum.

Robert Peterkin moved to approve the agenda. Gary Fandrei seconded. The agenda was approved.

Robert Peterkin moved to approve the minutes of September 8, 2017 minutes. Carla Stanley seconded. The minutes were approved.

Rich Novcaski, Hilcorp/Harvest Alaska, provided an update on the cross- Inlet Pipeline. Pipe has been procured and staged on the west side. The company intends to flow oil north from

Trading Bay, through a new 3 ½ mile line from Granite Point to tie into one of the CIGGS lines at Kaloa Junction. That line runs to East Forelands and will be tied into the Tesoro/Andeavor line to the refinery, thereby eliminating cross inlet tanker traffic and storage at Drift River. To replace the CIGGS line a gas line will be extended from the Tyonek Platform to Ladd's Landing and be tied into the Beluga Gas Pipeline.

Mr. Novcaski assured the Council that the 10" CIGGS A is well maintained, on stable sea floor with no subsea flanges and it is rated for double the pressure needed. Hilcorp is working to meet all regulatory requirements. Shutdown valves will be added on both ends of the pipeline. Leak detection will be upgraded.

The pipeline is being fabricated on the Westside in 1 mile sections. Onshore work will begin once the ground has frozen. Pipe will be pulled off the beach to the platform by a barge in the spring and trenched into the bottom. An existing 8 mile pipeline on the east side will have to be replaced, and completion is expected at the end of July.

The State Pipeline Coordinator's Office is conducting a technical review; a public hearing will be held in Nikiski in February. The RCA has approved the package as complete and will make a decision prior to March. A c-plan amendment will be submitted to ADEC in February.

Once the pipelines are installed, Hilcorp will install meters, control systems, and pig launchers and then hydro-test the CIGGS line, with the goal to ship oil by fall. Inventory will be minimized at Drift River and the pipelines will be cleaned in 2019. The intent is to clean and cut up the tanks and remediate the soil. Details are being worked out.

Tim Robertson, Nuka Research, gave a Pipeline Risk Assessment status report. Mr. Munger inserted that DEC is seeking a legislative request to add to the PROPS funds and the money being sought from industry.

The overall goals of the Risk Assessment are to anticipate problems with the aging Cook Inlet pipelines, to recommend risk reduction measures for implementation to maintain the integrity of the pipeline infrastructure and to ensure high quality recommendations by getting input from experts, operators and the Cook Inlet public.

The scope includes assessing the condition and integrity of the pipelines that transmit oil, gas, produced water or three-phase liquid upstream of the refinery. All pipelines will be inventoried. Cook Inlet RCAC is participating in the Task Force to share common data regarding the lines and the regulatory authority associated with them.

Phase 1, the Pipeline Inventory and Regulatory Overview is near completion. The Inventory includes maps and tables detailing various data by pipeline segment. It has been reviewed by CIRCAC staff, and will be validated by the other Task Force members and the pipeline operators. The authorities and applicable regulations of each agency have been defined, except for the questions to be decided regarding what pipelines are under PHMSA regulations.

Phase 2 will capture individual pipeline inventories, integrity management, spill history and spill causes. Publicly available records will be researched to conduct a root cause analyses of spills.

Phase 3 will convene an expert panel to develop risk mitigation measures based on all information collected and interactions with the public and industry. Then a final report will be written.

Mr. Robertson shared some of the data acquired to date. Phase 1 is due to complete in February. The target finish for Phase 2 is by mid-2018, and assuming the funding has been acquired the expert panel will be convened during the 3rd quarter and the final report finished by the end of 2018. Mr. Robertson recommends the Council continue to oversee the implementation of the recommendations. The overall cost of the Risk Assessment is estimated to be \$250,000 - \$300,000.

Vinnie Catalano, PROPS, reported on CIRCAC's Tanker Self-Arrest Study recommended by the Navigational Risk Assessment and contracted to Safeguard Marine. To determine the ability for oil tankers to self-arrest in lower Cook Inlet, pilots and research assistants participated in 34 simulations designed by information gathered through 20 interviews with local subject experts, stakeholders and consultations with marine experts. Various variables were introduced in the realistic simulations which utilized 3 ship models and targeted 5 critical locations. In all 5 locations the anchor techniques were sufficient to arrest the ships. Although the degree of difficulty of conditions increased during the 2nd day the pilots' anxiety lessened; there were no anchor breaks during the simulations.

A Focus Group, consisting of SWAPA pilots, Tesoro Maritime, Mr. Munger and Mr. Catalano and Safeguard Marine reviewed the results of the exit interviews following the simulations and came to these statements of agreement: Self-arrest is a viable risk mitigation procedure. Anchors are an effective tool and should be used to self-arrest in Lower Cook Inlet. Knowledge of anchor equipment and capabilities is necessary for a successful self-arrest. The process of self-arrest is dependent on the location; the most immediate concern and primary task is to reduce the speed by tuning the tanker and balancing vectors of environmental elements. Utilizing an anchor for self-arrest is an art dependent upon many factors, including the human factor. Different locations require different processes and practices for self-arrest, and success is dependent upon the level of experience of the mariner involved. Cook Inlet Harbor Safety Committee should address and discuss ships operating outside of Kachemak Bay awaiting arrival at the Homer Pilot Station. Pilot level of concern decreased during the second day of simulations. This was due to exposure and practice of performing the self-arrest maneuvers; the greater amount of exposure a mariner has to self-arrest maneuvers, the more likely they will be successful in performing self-arrest. Self-arrest of tankers in Cook Inlet is possible using properly trained, capable local pilots; self-arrest has a high probability of success.

The Focus Group recommends the Cook Inlet Risk Assessment be updated based upon this study and that pilots participate in simulation familiarization of self-arrest maneuvers as this will increase the likelihood of success. Further research should be conducted in terms of developing best practices and the benefit of anchor gear for self-arrest.

Mr. Catalano said he has a couple of related projects in mind that he will recommend to the PROPS Committee.

Captain John Schneider, Andeavor, spoke about the recent Simulator Training involving the Coast Guard, charter and tug operators, pilots, masters, ice scouts convened to practice

communicating about the Phase 2 ice conditions. The successful exercise allowed all to harvest diverse knowledge and experience and to do self-arrest training using the AVTEC simulator. Captain Schneider concurred that the simulator is very realistic, including the simulation of Cook Inlet ice.

Andeavor Foundation donated \$90,000 to upgrade AVTEC software, and they will do the same in 2018.

Mr. Munger said the Harbor Safety Committee will recommend self-arrest training as Best Practices. He commended Andeavor for its forward thinking in facilitating the free-flow dialogue between mariners which promotes increased maritime safety.

Larry Burgess, BlueCrest Energy, Alaska, provided an update on the Cosmopolitan project . The company is drilling extended reach oil wells from shore. Offshore gas drilling is not economical now.

The Hansen 16 well is producing 200 bbls per day, and BlueCrest is selling 1.4 million cubic feet of natural gas to Homer per day. The permanent production liner will be installed in 2-4 weeks to stabilize the well.

The new well, Hansen 14 has had some problems. The well was completed after 4 drilling efforts, but it is not producing as it should, for an unknown reason. The well has been fracked, and it will be perforated. The oil will be trucked to Andeavor.

The Plan of Development is to either re-drill H-16 or a new well, H-12. Potentially a gas well may be drilled from onshore into the lower Tyonek formation to deliver 10 million cu ft/day into the Enstar pipeline.

The loss of tax credits has threatened financing from BlueCrest's investors. If the new well doesn't come on, BlueCrest will pause until financing can be obtained. The reservoir engineer modeled the well at 1500 bbl/day.

Mr. Shadura commended the company for working well with the community. Mr. Munger said the candidness is extraordinary.

The meeting adjourned at 4:30 pm.