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Inspection of POL Contaminated Areas Haines-
Fairbanks Pipeline, 16 thru 21 May 1956

District Engineer

NPAVB

24 May 1956

NWK/381

THRU: Assistant District Engineer

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1. The undersigned was accompanied on subject survey by Mr. Richard B. Smith, Fire Prevention Engineer, Hq, U. S. Army, Alaska, and Mr. J. A. Spangler, Engineer Technician, Mechanical, this office. The inspection team was accompanied by Mr. J. A. Langevin, Park Warden, Department of Northern Affairs and National Resources, Y. T., Canada, from Alaska Highway Milepost 1152 to Haines Junction, Y. T.

2. The purpose of the inspection was to determine the extent of hazard in areas where POL products (predominantly JP-4 fuel) had been spilled during past winter deicing operations by Williams Brothers, contractor under the jurisdiction this office, and APFS, U. S. Army, Alaska. Contaminated areas inspected and conditions noted were as follows:

a. Alaska Highway Milepost 1151. Contaminated area at this location consisted of a slough an area of approximately 30 x 300 feet between the pipeline and the Alaska Highway. The excess fuel on the surface of the water had been removed by pumping operations under the jurisdiction of this office on 28, 29 and 30 April 1956, approximately 24,000 gallons. Dry grass and moss along the highway remains in a saturated condition but is deemed no more hazardous than other areas where POL products were not present. The POL products at this location were the result of APFS deicing operations where the pipeline was cut and purged at pipeline milepost 273.5.

b. Alaska Highway Milepost 1146.1. Contaminated area at this location was approximately 40 x 100 feet, and some seepage had contaminated a very small area on the opposite side of the highway by passing through a small culvert. The surplus POL products on the surface of the water were removed by personnel this office on 26 and 27 April 1956. Total POL products removed, 4,800 gallons. Mr. Langevin stated that two dead ducks were found and it was evident that they died as a result of the fuel on the surface of the water. POL products this area came from a cut at pipeline milepost 268.9 which was made by Williams Brothers. There is also a possibility that some of the fuel had seeped into Lake Creek which may pollute the stream, and endanger the fish. There was no evidence of dead fish. Grass and moss in this area is well saturated but does not present an extremely hazardous condition.

c. Alaska Highway Milepost 1142.9. Polluted area at this location was a small bay in a small unnamed lake covering approximately 40 x 400 feet in area along the shore. The lake is approximately one-half mile from the highway and the fuel presents no fire hazard. Personnel of this office pumped 6,000 gallons of volatile fluid from this location on 1 May 1956. There is the possibility of

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muskrats dying from the surplus fuels but it is the opinion of the undersigned that the muskrats will migrate to another lake or stream if conditions are such that they cannot exist. This spillage was the result of APPS deicing operations.

d. Alaska Highway Milepost 1119.4. This location is along a tributary to Swede Johnson Creek commencing at pipeline checkvalve No. 33 and extending approximately $1\frac{1}{2}$ mile to where the tributary flows under the Alaska Highway and which is near the confluence of the tributary and Swede Johnson Creek. Attempts were made by personnel of this office to remove surplus fuel on surface of the tributary stream but without satisfactory results. A small dam of old bridge timbers was removed and contained fuels were allowed to flow on downstream. At the time of inspection, area was not considered an extreme fire hazard and no dead fish were found. This is a location that many of the local people are gravely concerned about as Swede Johnson Creek and tributaries have in the past been excellent grayling fishing streams. It was noted that there were considerable numbers of fish at Swede Johnson Creek. Apparently no damage to fish has been caused to date. The cause of spillage at this location cannot be determined as during the deicing operations bypass valve No. 33 was found open and a union cracked in the bypass line.

e. Alaska Highway Milepost 1111 (near Quill Creek Road). The polluted area this location consists of a small lake of approximately 40 acres. The surplus fuel on the lake was burned by Canadian officials, Mr. Langevin, Mr. Wilson and Mr. Kjar during the winter months. No fuel was removed by personnel this office and no hazardous fire condition exists. This is also an area which concerns the local population as it has been in the past an excellent breeding ground for muskrats. Very slight traces of oil were noted along the shore and it is believed that no damage to wild fowl or fur bearing animals will be encountered. The spilled fuel at this location was the result of APPS cutting the line during the deicing operations at pipeline milepost 236.6.

3. Following inspection of the abovementioned locations, the inspection team proceeded to Whitehorse, Y. T. Canadian personnel contacted at Whitehorse:

F. H. Collins, Esq.
Inspector Richard Steinhaur
Mr. Armstrong
Mr. Kjar
Mr. G. M. Wilson
Mr. J. A. Langevin

Commissioner of Yukon Territory
Royal Canadian Mounted Police
Federal Engineer
Game Director, Yukon Territory
Forest Engineer) Dept. of Northern
Park Warden) Affairs and
National Resources

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4. The inspection team conferred with the abovementioned Canadian officials in Commissioner Collins' office 19 May 1956. It was the consensus of the Canadian officials:

a. That the cooperation and immediate corrective action taken by this office to alleviate the hazardous conditions caused by deicing operations during the past winter were commendable.

b. That the fire hazard has been reduced to a light hazard by removal of POL products and evaporation of the more volatile fuels.

c. That the effect upon wild life (fur bearing animals) and fish is not considered serious, with the exception of the areas at Alaska Highway Milepost 1142.9 and 1111 where the muskrat population may be affected. Extent of damage cannot be determined until a count is made during the winter of 1956-57.

d. That no claim against the United States government by the Canadian government is presently being considered.

e. That some assurance be given the Canadian government that a similar condition will not recur in the future.

f. Commissioner Collins requested a mobile piece of fire fighting equipment be furnished by the United States government to augment their limited fire fighting equipment. Truck could be located at Station 2A or 2B.

5. Conclusions and recommendations:

a. It is the undersigned's opinion that there remains no highly hazardous fire condition along the Alaska Highway at the locations mentioned in paragraph 2 above. If a fire does originate in the contaminated areas, there is no doubt but that it will burn more rapidly and intensely but the control will be similar to that as in any of the surrounding area. Vegetation all along the highway is very dry and can be easily ignited from any one of the common causes, i. e., lighted cigarette, matches, or campfire. It is recommended that immediate action be initiated to comply with Commissioner Collins' request that a suitable piece of fire fighting equipment with necessary auxiliary equipment and extinguishing agents, i. e., wet water, foam solution, etc. be stationed at Station 2A or 2B. This fire truck would be at the disposal of the Canadian Forestry personnel or RCMP's upon call.

b. In all probability during the life of the pipeline there will be experienced numerous forest fires in close proximity. It is

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conceivable that this exposure to excessive heat would create internal pressures which would result in possible rupture of the line if the fluid in the line were static. It is recommended that APPS personnel be immediately notified of any fire occurring in the vicinity of the pipeline so necessary action can be taken to secure sufficient flow through that particular section of line. This should be coordinated with Forest Engineer, Department of Northern Affairs and National Resources, Whitehorse, T. Y., Canada.

c. In reference to pollution of lakes and streams, it is believed that no further action is necessary at this time.

d. It is recommended that the problem of fuel spillage from pipeline purging be given considerable study and a method developed whereby fuels can be controlled by either removal, burning or other means.

e. It is recommended that this report be referred to Hq, U. S. Army, Alaska, calling their attention in particular to paragraph 5a. It is also believed advisable that reply to Commissioner Collins' letter to the District Engineer dated 3 May 1956, copy of which is attached, be initiated by Hq, U. S. Army, Alaska.

1 Incl
Cy ltr Comd. Collins
to Dist Engr 3 May 56
w/incl

HARDIE W. KING
Chief, Safety Branch

cc Ch, Safety Br
Ch, Constr Br
MAR
