

**DEPARTMENT OF
TRANSPORTATION**

Office of Pipeline Safety Operations

[Docket No. OPSO 77-8W]

**TRANS-ALASKA CRUDE
OIL PIPELINE**

Grant of Waiver

By petition dated July 25, 1977, the Alyeska Pipeline Service Company (Alyeska) requested a waiver from compliance with 49 CFR 195.218 with respect to seven girth welds at the Valdez Terminal. The welds, identified as Weld Nos. 139, 362C, 363, 442, 1085, 346, and 420, were made without offsetting the longitudinal seams on adjacent pipe lengths as required by Section 195.218. Alyeska, operating on the mistaken belief that Part 195 did not apply to that portion of the pipeline system where these particular welds were located, had not taken steps to ensure that offsets were provided for at the time of construction.

In support of the waiver request, Alyeska asserted that the technical bases upon which the Materials Transportation Bureau (MTB) relied in granting Alyeska a waiver from Section 195.218 for Weld No. 49344T at the Jim River Crossing No. 2 (Docket No. OPSO 76-10W, 41 FR 38202, September 9, 1976) also apply in the case of the present welds. In the Jim River situation, as for every waiver request, MTB evaluated all available data relative to determining whether pipeline safety would be jeopardized by granting the waiver. MTB found that a waiver from Section 195.218 for the Jim River weld would not be inconsistent with pipeline safety because of the difficulties attendant to weld replacement activities in the river crossing and the following reasons:

1. The girth weld exceeds the standards of acceptability in Sec. 6 of API Standard 1104 and does not contain any weld defect which might grow to an unacceptable level under cyclic loadings.
2. The ductility of the pipe and girth weld metals would provide for localized yielding where high residual stresses may exist and thereby prevent fracture initiation and failure of the weld. (Section 195.218 was adopted when pipe and weld materials in general use were less ductile than the materials at Weld No. 49344T.)
3. The similarity of mechanical properties between the girth weld and pipe metals minimizes the likelihood of

any concentration of residual stresses existing at the intersection of welds and surrounding heat-affected zone.

The fact that the longitudinal seams were ground flush with the inside pipe circumference at the joint mitigates the likelihood of any concentration of residual stresses caused by excess metal at the intersection of welds. (The longitudinal seams were ground flush with the inside circumference at pipe ends when the pipe was manufactured to accommodate an internal line-up clamp during welding.)

MTB agrees with Alyeska that the aforementioned technical reasons why the Jim River weld is safe apply equally to the seven welds at the Valdez Terminal. Moreover, in light of modern pipeline materials and welding technology, the safety rationale appears applicable to all girth welds currently made on steel pipelines intended to carry hazardous materials. This position is substantiated by the fact that neither the Federal gas pipeline safety standards in 49 CFR Part 192 nor the industry standards applicable to liquid pipelines, ANSI B31.4, contain a requirement for seam offsetting such as §195.218. Therefore, although the working conditions at Valdez do not have the adversities of a river crossing, MTB believes that a waiver from §195.218 for the seven welds is nonetheless appropriate because the requirement itself does not appear necessary for safety. Thus, on July 27, 1977, Alyeska was advised by telephone and telegram that its waiver request was granted. This Notice publicly announces that decision.

Because of the significance of the decision and its impact on pipelines to be constructed by others, MTB will issue a Notice of Proposed Rulemaking to repeal the general requirement in 49 CFR 195.218.

(18 USC 831-835, 49 CFR 1.53(g).)

Issued in Washington, D.C., on August 17, 1977.

CESAR DELEON,
*Acting Director, Office of
Pipeline Safety Operations.*

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