

April 4, 1978

Mr. Jack Baker
Consulting Engineer
P.O. Box 34179
Omaha, NB [sic] 68134

Dear Mr. Baker:

This refers to your letter dated March 11, 1978, in which you ask, "Does the Office of Pipeline Safety Operation believe that crater cracks or star cracks $5/32$ inch long or less are significant discontinuities in the assessment of a weld in a pipeline being constructed in accordance with Part 192?"

Under Section 192.241(c), "The acceptability of a weld that is nondestructively tested or visually inspected is determined according to the standards in Section 6 of the 1973 edition of API Standard 1104." Section 6.7 of API 1104 states, "Shallow crater cracks or star cracks which are located at the stopping point of weld beads and which are the result of weld metal contraction during solidification are not considered injurious defects unless their length exceeds $5/32$ inch. With exception of these shallow crater cracks, no weld containing cracks, regardless of size or location, shall be acceptable." The Office of Pipeline Safety Operations interpreted the requirement to mean that shallow crater cracks or star cracks $5/32$ inch or less are not significant in the assessment of a weld.

We trust that we have satisfactorily responded to your inquiry.

Sincerely,

\signed\

Cesar DeLeon
Acting Director
Office of Pipeline
Safety Operations

March 11, 1978

Mr. Cesar DeLeon
Acting Director
Office of Pipeline Safety Operations
MATERIALS TRANSPORTATION BUREAU
Trans Point Building
2100 Second Avenue, SW
Washington, D.C. 20590

Dear Mr. DeLeon:

Your letter of February 10, 1978 to Mr. Robert R. Young, Cleveland, Ohio has come to my attention. As I understand it, the thrust of this message is that OPSO does not regard crater cracks or star cracks having a length of 5/32 inch or less as injurious discontinuities in the case of liquid pipelines subject to the provisions of Part 195. This is based on your statement:

"The Office of Pipeline Safety Operations interpreted the requirements to mean that shallow crater cracks or star cracks 5/32 inch or less are not significant in the assessment of a weld."

The foregoing statement solves a practical, everyday problem in the case of pipelines constructed in accordance with Part 195, but it appears to beg the question in the case of gas pipelines, which are subject to Part 192 requirements. Therefore, I wish to ask you this question: Does the Office of Pipeline Safety Operations believe that crater cracks or star cracks 5/32 inch long or less are significant discontinuities in the assessment of a weld in a pipeline being constructed in accordance with Part 192?

Your answer to this question will be appreciated.

Sincerely,

\signed\

Jack Baker

February 10, 1978

Mr. Robert R. Young
The Standard Oil Company
Midland Building
Cleveland, Ohio 44115

Dear Mr. Young:

This responds to your letter dated November 18, 1977, in which you ask, "does the term 'cracks' as stated in DOT Section 195.230 and Section 195.232 exclude 'shallow crater cracks or star cracks' which are of acceptable dimensions and 'not considered injurious defects' according to Section [sic] 6.7 of API 1104 and DOT Section 195.228?" The answer is Yes, because the acceptability of a weld is determined according to the standards in Section 6 of the 1973 edition of API Standard 1104.

Section 6.7 of API 1104 states: "Shallow crater cracks or star cracks which are located at the stopping point of weld beads and which are the result of weld metal contraction during solidification are not considered injurious defects unless their length exceeds 5/32 inch. With exception of these shallow crater cracks, no weld containing cracks, regardless of size or location, shall be acceptable." The Office of Pipeline Safety Operations interpreted the requirement to mean that shallow crater cracks or star cracks 5/32 inch or less are not significant in the assessment of a weld. We believe that it would be incorrect to conclude that these specific cracks are identified in Section 195.230(a)(1) and Section 195.232(a), since they are not considered injurious defects.

We trust that we have satisfactorily responded to your inquiry.

Sincerely,

/signed/

Cesar DeLeon
Acting Director
Office of Pipeline
Safety Operations