

Tacoma, Washington, October 8, 1976

Mr. M. C. Teats
GENERAL SUPERINTENDENT

Tacoma, Washington, October 11, 1976

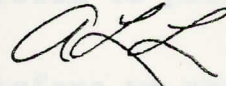
THICKNESS TESTING OF PIPELINES

There are two approaches to monitoring pipelines carrying potential pollutants of the bay. The first method consists of checking the thickness of the pipe. The Krauthramer-Bronson "D" meter is a simple portable tester that reads the thickness of cast iron or steel pipe directly. It is quick and easy to use on exposed pipe and sells for \$2145. It does not read lead or plastic pipe. Krauthramer-Bronson recommends a 303B Flow/Thickness tester for these materials for \$5460. The 303B is more technical than the "D" meter.

Mr. M. C. Teats
General Superintendent

THICKNESS TESTING OF PIPELINES

I suggest we move with dispatch in acquiring the additional information from the State on inspecting the acid plant lines.



A. L. LABBE

ALL:cg

cc: CHRandt
CEAllen
FRPetermann
OTGallagher ✓



C. E. ALLEN

CEA:cg

cc: Allabbe ✓
CHRandt
FRPetermann

Tacoma, Washington, October 6, 1976

Mr. M. C. Teats
GENERAL SUPERINTENDENT

THICKNESS TESTING OF PIPELINES

There are two approaches to monitoring pipelines carrying potential pollutants of the bay. The first method consists of checking the thickness of the pipe. The Krautkramer-Bronson "D" meter is a simple portable tester that reads the thickness of cast iron or steel pipe directly. It is quick and easy to use on exposed pipe and sells for \$2145. It does not read lead or plastic pipe. Krautkramer-Bronson recommends a 303B Flow/Thickness tester for these materials for \$5460. The 303B is much bulkier and more technical than the "D" meter.

The cost of thickness testing is entirely dependent upon the grid, systems included and period between tests. For example: The acid piping system could be set up on a 20-foot grid for an initial cost of about \$2800 and tested for \$400 per test. However, if a 4-inch grid is selected, the initial set would be about \$38,000 and each test would be about \$21,000. We also have an oil system, DMA system liquid SO2 system, solution system between the nickel plant, slimes and refineries.

Another method of monitoring pipelines in use monitors corrosion between points on a pipeline. These systems are engineered for each application. A rough estimate for a basic system requiring manual reading of each station starts at \$25,000 for the acid system to perhaps \$50,000 for continuous automatic readout.

We need more information from the State before we can make any moves on this equipment.

Charles E. Allen

C. E. ALLEN

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cc: ALLabbe ✓
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