

PI-97-0102

U.S. Department of Transportation

Research and Special Programs Administration

400 Seventh Street, S.W.
Washington, DC 20590

October 1, 1997

Mr. Larry Abraham
Compliance Coordinator
BP Oil Company
200 Public Square
Cleveland, Ohio 44114-2375

Dear Mr. Abraham:

This is in response to your letter dated May 7, 1997, asking if the Research and Special Programs Administration's Office of Pipeline Safety (OPS) will accept BP's use of the SCADA Master system to record pump discharge pressures at each pump/booster station to meet the requirements of 49 CFR 195.404(b)(1). In your letter, you state that the scan time for the SCADA system is 40 to 50 seconds in the South East Region and every 20 seconds in the Mid-West Region. The discharge pressure recorded in both regions is based on an average of one minute of data. These discharge pressures would be stored on tape and held for 36 months. The data would also be retrievable via computer in graphical form with two weeks of data viewable at one time. The data would not be collected during times of occasional communications failure.

OPS considers an appropriate minimum time interval for electronically recorded pressure data as that time interval which is frequent enough to collect the pressures attained during normal and abnormal conditions, such that the recorded data could be assembled to create a facsimile of the pressures that actually occurred, including the magnitude and time interval of all elevated pressures.

This approach requires the operator to review the dynamics of their individual pipeline to determine what interval would be necessary and to ensure that all elevated pressures are captured. An inspector could then review the operating dynamics of the pipeline to determine if the chosen interval is small enough and that the recorded data reasonably agrees with actual field data.

The use of the SCADA system in lieu of pressure chart recorders would be acceptable as an option available to BP, if the SCADA system could be configured to collect and archive sufficiently detailed pressure records. The recording of average pressure every minute instead of the peak pressure each minute may not preserve the short-term,

abnormal pressures that occur on BP's pipelines. BP should perform an operations analysis to determine what SCADA configuration parameters would be necessary to preserve the pressure history. Such an analysis could also be reviewed during an inspection audit to verify the adequacy of the configuration parameters.

If we can be of further assistance in this matter, please contact me or L.E. Herrick of my staff at (202) 366-5523.

Sincerely,

Richard D. Huriaux, P.E.
Director for Technology and Regulations
Office of Pipeline Safety