

## LETTER OF CONCERN

August 18, 1999

### CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Victor Yarborough, Vice- President Operations  
Colonial Pipeline Company  
945 E. Paces Ferry Rd.  
Atlanta, GA 30326

### **CPF No. 28500C**

Dear Mr. Yarborough:

During the year 1997, representatives of the Colonial Inspection Team (CIT) comprised of inspectors from the Eastern, Southern and Southwest Regions, Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code, conducted a pipeline safety inspection of Colonial's Pipeline Company facilities in its four operating districts.

Records were reviewed and field inspections were conducted at most of Colonial's field locations in the districts. During the review and inspections, we noted practices where an alternative action may have been preferred.

### Maintenance

1. Several of the flange bolts in the Line 1 prover loop piping at Lake Charles are three turns short of extending through their associated nuts. Similar conditions exist at Baton Rouge and Atlanta Junction. The requirement by ASME B31.4, 408.5, that all bolts or stud bolts be completely extended through the nuts, is not mandatory to Colonial but it is good bolting practice to complete the flanged connection as described in B31.4. Colonial should correct those bolted flanged connections and ensure that the stud bolts completely extend through the nut. Inspection (construction and maintenance) procedures should be revised to include provisions to assure compliance with the construction and maintenance specifications/requirements.
2. At the School House Lane block valve near Linden, NJ, the piping for an incomplete bypass assembly is supported by an aged wooden plank. Colonial should install the proper supports on the bypass assembly.

3. Critical Equipment Maintenance Schedule: The Relief Tank 5105 at Lake Charles relieves surges from Lines 1&2. This tank is inadequately addressed on the Critical Equipment Maintenance Schedule, in that no test is conducted to verify that the level measuring instruments are accurately reporting the level of material in the tank. Colonial should prepare a procedure to ensure that the tank(s) is able to accept the relieving product should a relief valve be activated.
4. At Norfolk, the Critical Equipment Maintenance Schedule lists only one of the two relief valves actually installed. The Critical Equipment Maintenance Schedule should be upgraded to reflect the installed valves.
5. There are numerous conduits and small copper instrument tubing that appear to be out of service but have been left in place. There were no signs to indicate that the equipment was out of service. It is recommended that out of service equipment should either be physically removed or marked as Out of Service or Abandoned.

#### Communications

1. There is an inconsistent application of outside alarm signals. Lake Charles is a manned location, in which occasionally there is only one individual on shift who may be outside performing operational chores. There is no outside horn or other audible fixture to alert outside personnel of abnormal or alarm conditions. There are outside alarm signals at S. Baltimore and Chantilly. OPS recommends that Colonial review the criterion under which outside horns are installed; in order to establish consistency across all facilities.

#### Line and Station Balance

1. At Linden, the station balance is noted as an important process, but there is no written procedure to perform this task. The employee orientation guide briefly mentions the existence of an over/short process. Colonial should establish a written procedure to document the station balance now being conducted at Linden, and review the practices of other similar stations.
2. As an additional duty, terminal operations personnel at Linden noted that the station "yard" is examined hourly to assure no problems have arisen. However, the only written notation (Operating Guide) indicates that the station is "walked" every shift change, not every hour. Colonial should amend their procedures to document a globally applied process of "walking" the stations.
3. At Aberdeen, the prover loop is out of service. Therefore, the N. Baltimore stub line meters are checked against tank gauge. Procedure calls for a 500 bbl discrepancy before action is initiated to find problem. Colonial should review the current practice of using a tank gauge instead of a meter to verify line integrity.
4. At Chantilly, there is no meter to the Fairfax stub line (21,300 bbl fill) to perform an over-short. This may be the only stub line without a source meter. Colonial should review the over-short line integrity process on all stub lines.

## Design and Construction

1. Typically, operators have procedures for issuing engineering drawings. A drawing is “issued” several times before it is considered complete. Some of the issue cycles are: Issued for ... Design, Review, Approval, Construction and As-Built. Colonial has adopted a similar issue/review process, however, it is not always followed. During the inspection of headquarters and facilities located in the Gulf Coast District, it was observed that there existed and were “in use” several drawings that had not been designated as final. In some cases the drawings at that location were of an earlier revision. Colonial should follow its procedures for issuing engineering drawings.
2. Colonial is inconsistent in the electrical grounding of equipment - many pumps in the Gulf Coast District were properly grounded while other were not. For example, the electrical pumps at Powhatan, James River or Mitchell Junction were not grounded per current electrical safety codes. Colonial’s engineering guides and standard drawings should be reviewed and revised to ensure that electrical equipment and station facilities are properly grounded.
3. There is an inconsistent application of thermal relief valves. These reliefs are usually found at launchers/receivers, provers, manifolds and pumps. Relief valves had not been installed at:
  - Allentown Pump Station for the Trenton launcher
  - Coastal-GATX delivery manifold
  - Conowingo Pump Station for Unit #1 case
  - Woodbury Pump Station for the Mobil pump-back manifold

Colonial should review their engineer guides and standard drawings to ensure proper design and installation of thermal relief valves at its pipeline facilities.
4. Colonial has not analyzed or determined what portions, if any, of the Primary Transmix project are subject to the federal regulations. At the time of the inspection, construction had started without approved drawing or specifications for this project. Identification of those portions of the project subject to the federal regulations should be made to ensure that the requirements of the federal regulations are being met.

I hope you will consider these areas of concern and strive to improve on the action in the future. If we can answer any questions or be of any assistance, please call us at (404) 562-3530. Thank you for your staff’s cooperation and assistance during this inspection.

Sincerely,

Frederick A. Joyner  
 Director, Southern Region  
 Office of Pipeline Safety

cc: Compliance Registry, OPS Headquarters