

APPENDIX 2

**EPNG Response to Information Request from NTSB
(Undated)**

INFORMATION REQUEST FROM EL PASO NATURAL GAS

- 1) Provide organizational charts for Transmission Operations and for Operations Services Division.

See Tab A.

Procedure Requests:

- 2) Provide the procedure used for blowing down drips and how the determination to blowing down the drips on the 1st and 17th of each month was obtained on Line 1103.

The following is the procedure by which the blow-down of the drip on Line 1103 near Pecos River has been conducted:

a) Drip Blow-down

- *Open inlet valve at the liquid storage drip tank. The liquid storage tank is an atmospheric tank.*
- *Open the drain valve located at the pipeline drip. This valve is located on the 2-inch riser from the drip. This is a siphon and is attached to the top of the drip. See Tab B for a drawing.*
- *Listen for liquids transferring into the line from the drip to the liquid storage tank.*
- *When the flow changes from liquid to gas, shut the valve at the drip, and then the valve at the drip tank.*
- *The amount of fluid is not recorded each time the drip is blown down; however, the amount is recorded at the time of disposal.*

b) Determination of Drip Blow-down

- *Since the Pecos River Compressor Station is an unmanned facility, the drip is blown down when personnel are at the location. Personnel are on location at least two times each month during their measurement collection days (chart run). When personnel are working in the area for other reasons, the drips are also blown down. The drips are also blown down during each pigging operation.*

- 3) Provide procedure indicating limits set on alarms at Gas Control for H₂S, CO₂ and H₂O in reference to Line 1103, and reactions taken when limits are exceeded.

The procedure for setting or responding to the alarms is a part of the on-the-job training of controllers. A checklist is used during training to ensure that the subject is covered. See item 16 on the EPNG Pipeline Control Task Verification checklist (see Tab C).

The "Policy and Standard Operating Procedure for Enforcement of Gas Quality Specifications," dated July 29, 1996, accurately describes the response we take to gas quality violations.

The O&M Manual describes the handling of Abnormal Operations, which includes high levels of H₂S. Section 701, Paragraph 10 (see Tab D), and prescribes the response.

Slam valves at the outlet of treating plants are designed to prevent off-spec gas from entering our pipeline. In the event that such gas does get into the main line, there are sampling points downstream.

High levels of CO₂ and H₂O are not covered by the O&M Manual, but the response by Pipeline Control is basically the same.

Pipeline Control personnel have the ability to set alarm levels on Gas Quality components at any of the points on the pipeline where those values are sampled and telemetered to the Control Center in El Paso. Our pipeline tariff prescribes the upper limits for H₂S, CO₂, and H₂O.

Two alarm limits are used on each point. A "High" limit alerts the controller to a developing situation and to begin corrective actions, attempting to avoid reaching the upper limit. If the "High-High" limit is reached, response becomes more urgent and may lead to shutting in the offending source if it can be identified.

Gas Quality Tariff limits and Alarm settings are:

	<u>H₂S</u>	<u>CO₂</u>	<u>H₂O</u>
<i>Tariff</i>	<i>0.25 gr</i>	<i>2.0%</i>	<i>7 lbs/MMcf</i>
<i>High Alarm</i>	<i>0.20 gr</i>	<i>2.0%</i>	<i>7 lbs/MMcf</i>
<i>High-High Alarm</i>	<i>0.25 gr</i>	<i>2.5%</i>	<i>8 lbs/MMcf</i>

These alarm limits will not be changed, except in rare instances. For example, CO₂ variances are occasionally given to processing plants during maintenance, provided the gas will blend to other mainline gas to below 2.0% CO₂ total. Once the maintenance is complete, alarms are reset to the original levels.

Copies of the computer screens showing the alarm settings for Keystone Compressor Station and NGPL interconnect are shown under Tab E.

- 4) Provide any and all procedures in reference to the qualifications of corrosion control personnel.

The procedures referencing qualifications of corrosion control personnel are given under Tab F.

All technicians who work in the corrosion function of the El Paso Natural Gas Technical Development Program (see Tab G) must demonstrate their skills and ability to conduct corrosion tasks outlined in the Program. All corrosion tasks are defined in the El Paso Energy's Corrosion Control Manual and Coating Manual as of May 15, 2000. (These manuals were previously sent to your office by e-mail.) Prior to May 15, 2000, the corrosion tasks for El Paso Natural Gas were located in the Company's Operating and Maintenance Procedures Manual.

El Paso Natural Gas spends time, energy, and funds to train its personnel to acquire and continually improve their knowledge of corrosion and increase their ability to solve corrosion problems. A list of corrosion courses attended between 1997 and 2000 by our corrosion personnel, both outside and inside the Company, is included under Tab H. Additionally, the Company employs three coordinators who have demonstrated their knowledge of corrosion matters by their training and experience. These individuals conduct on-the-job training and conduct tests of field corrosion personnel assigned tasks under the Technical Development Program. Douglas Harrison's qualifications as a "Senior Corrosion Specialist" are also found under Tab I.

- 5) In El Paso Energy's Corrosion Control Manual, Section 700, Internal Corrosion Control, Paragraph 1.1.3, it states that Corrosion Control Services will make final determination on whether a particular pipeline is transporting corrosive gas. Provide any information on the person or persons making this decision, in reference to their qualifications, and also any procedure and records used to make this determination in reference to Line 1103.

Until May 15, 2000, the El Paso Natural Gas Company Operating and Maintenance Procedures Manual was in effect. That manual, in Section 201.2, also stated that in matters of internal corrosion, Corrosion Services would be contacted for recommendations (see Tab F). Each location supervision is responsible for corrosion control (see Section 201.2, "Responsibilities," Tab F). The members of Corrosion Services are Robert Babnick, Bruce Norred, and Ramon Vega. Their qualifications are given under Tab I.

The determination that Line 1103 did not transport "corrosive gas" is based on the previous O&M Manual records included under Tab J. Only a small number of abnormal excursions of H₂S and H₂O have occurred. It is believed that the excursions could be blended and that the amounts did not warrant calling the gas in Line 1103 "corrosive."

- 6) Provide procedures for gas quality data, such as H₂O, CO₂, H₂S exceed the tariff. Who else gets this information? Is there a procedure for the dissemination of this information? Measurement technicians? Corrosion Control? Recall that we saw some of this data in reports submitted to Volume Accounting.

A portion of the Company Gas Measurement Manual entitled "Gas Quality Policy" is given under Tab K. A narrative is also given with each gas quality item. The information is disseminated by several means. H₂S amounts above tariff are sent to Operations and thus to Measurement and Corrosion specialists per the "Abnormal Operations" Section of the El Paso Energy Corp.'s O&M Manual. H₂O and CO₂ are also reported to Operations, and sometimes to Measurement professionals, by direct means or at morning briefings.

Records Request:

- 7) Provide any records indicating pig run dates for Line 1103 between the years of 2000 and 1990, inclusive.

<u>DATE</u>	<u>LIQUID</u>	<u>SOLID</u>
07/17/90	1/2 gallon	2 lbs.
09/14/90	0	1 lb.
11/30/90	0	1/2 lb.
03/05/91	0	5 lbs.
08/05/91	0	50 lbs.
08/06/91	0	25 lbs.
01/24/92	0	10 lbs.
04/30/92	0	20 lbs.
06/09/92	0	40 lbs.
01/26/93	0	200 lbs.
08/30/93	30 gallons	100 lbs.
09/13/93	10 gallons	200 lbs.
06/01/94	No data	No data
06/07/94	No data	No data
01/11/95	3 gallons	15 lbs.
01/12/95	3 gallons	15 lbs.
04/03/95	No data	No data
08/18/95	No data	No data
02/12/97	No data	No data
03/13/97	No data	No data
12/03/97	No data	No data
01/04/98	0	0
04/21/98	0	0
01/27/99	110 gallons	20 lbs.
05/22/00	0	0

See Tab L.

- 8) Provide records indicating how much fluid has been recovered from each pig run between the years of 2000 and 1990, inclusive.

See table in question No. 7) above.

- 9) Provide records indicating analyses of any fluid or solid samples taken from any portion of Line 1103, indicating location from where sample was taken, including any chain of custody reports, between the years of 2000 and 1990, inclusive.

The analyses of fluids and/or solids samples taken from Line 1103 were conducted for the disposal of fluids and/or solids. Their analysis is found under Tab M. Following the failure on August 19, 2000, samples were taken at several locations. The reports are also found under Tab M.

- 10) Provide any records indicating alarms and reactions to those alarms, in reference to Line 1103, from gas controllers between the years of 2000 and 1990, inclusive.

Attached under Tab N are the records for H₂S alarms and reactions to those alarms by Gas Control. Between 1996 and 2000, there were four alarms of H₂S slugs with the highest being 1.150 grains and the lowest 0.29 grains. The records for alarms and reactions for CO₂ and H₂O are being researched. Each individual daily log in Gas Control between 1996 and 2000 will require individual review. This is a time-consuming task. As soon as the data is obtained, it will be sent to you.

- 11) Provide any records indicating a response and remedial action from field operations in response to alarm notifications from gas control in reference to Line 1103 between the years of 2000 and 1990, inclusive.

The field response to the H₂S alarms are given for three of the four alarms identified in Tab N. The response to the event of H₂S on May 8, 1997, for a 7-minute slug of 0.44 grains was hampered by the loss of communication at Keystone Compressor Station. Response by the field to CO₂ and H₂O alarms will be sent to you as soon as Gas Control is able to locate and pull the relevant records.