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Chris Hoidal
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DOT - PHMSA
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December 30th of 2009

Re: Addendum to Tesoro's CPF 5-2009-001M Response Letter (Dated February 3rd of 2009):

Dear Mr. Hoidal,

This letter is an addendum to Tesoro Refining & Marketing Company's (Tesoro's) response letter (dated February 3rd of 2009) to the CPF 5-2009-001M enforcement letter (dated January 6th of 2009). In addition, this letter is in response to Hossein Monfared's verbal data request. Enforcement letter CPF 5-2009-001M resulted from a DOT inspection on September 11th of 2008 at Tesoro's Southern California location. A response letter dated February 3rd of 2009 was submitted to PHMSA with Tesoro's initial response to indicate that action would be taken on the enforcement letter findings through revision of the Gas Operations and Maintenance (O&M) Manual. The Tesoro Southern California Gas O&M Manual revisions have been completed and are attached for your review. Attachment 1 lists the CPF 5-2009-001M letter findings, item resolutions, and references the applicable attachment containing the revised Tesoro Gas O&M text. Please contact Lori Menke at Lori.A.Menke@tsocorp.com if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael McCann", with a long horizontal line extending to the right.

Michael McCann
VP Pipelines & Terminals

Attachments:

- Attachment 1: CPF 5-2009-001M Resolution
- Attachment 2: Tesoro O&M Manual Section 4.3.2
- Attachment 3: Tesoro O&M Manual Section 4.2.6
- Attachment 4: Tesoro O&M Manual Section 4.2.7
- Attachment 5: Tesoro O&M Manual Section 4.3.5
- Attachment 6: Tesoro O&M Manual Section 4.3.20

CC: *Hossein Monfared (PHMSA)*
Dan Gabel (Tesoro S. CA)

Attachment 1: CPF 5-2009-M001 Resolution:

- 1) 49CFR192.227 Welders: Qualification of Welders:
 - a. **Item:** Tesoro Refining and Marketing Company (TRMC) does not specify in its Operations and Maintenance (O&M) manuals what section and edition of API 1104 need to be used to qualify its Welder. TRMC's O&M manuals only require its welders to be qualified according to API 1104. TRMC's O&M manual does not explicitly reference the appropriate industry standard to be used to qualify its welders.
 - b. **Resolution:** *The Gas O&M Manual Section 4.3.2 was revised to include the following: Welders shall be qualified in accordance with API 1104, 19th Edition, Section 6, or ASME Boiler and Pressure Vessel Code, 2004 Edition, Section IX, Welding and Brazing Qualifications (See the Tesoro Welding Manual – Section 2).*

- 2) 49CFR192.241 Inspection of Test Welds:
 - a. **Item:** TRMC's welding procedures do not specify in its O&M manuals what section and edition of API 1104 need to be used to inspect its welds. TRMC's Operations and Maintenance states, "NDT testing shall conform to API 1104." TRMC's O&M manual do not explicitly reference the industry standard to be used to inspect and accept their welds.
 - b. **Resolution:** *The Gas O&M Manual Section 4.3.2 was revised to reference the following: API 1104 19th Edition – Section 9 (See the Tesoro Welding Manual – Section 7).*

- 3) 49CFR192.243 Nondestructive Testing:
 - a. **Item:** TRMC does not have adequate O&M procedures for nondestructive testing. If TRMC has a separate welding manual, and if that manual addresses nondestructive testing, then it should be included or referenced in its O&M manuals.
 - b. **Resolution:** *The Gas O&M Manual Section 4.3.2 was revised to reference the following: API 1104 19th Edition – Section 9 (See the Tesoro Welding Manual – Section 7).*

- 4) 49CFR192.609 Change in Class Location: Required Study:
 - a. **Item:** TRMC does not have adequate procedures to periodically determine changes in class location. TRMC previously identified its pipeline to be in class 1 location. A recent class location study conducted by an outside contractor identified the pipeline to be located in a class 2 &3, however, procedures to determine future class changes are not in the TRMC O&M manual.
 - b. **Resolution:** *The Gas O&M Manual Section 4.2.6 was revised to include procedures for evaluating class location changes.*

- 5) 49CFR192.611 Change in Class Location: Confirmation or Revision of Maximum Allowable Operating Pressure:
 - a. **Item:** TRMC does not have adequate procedures to establish MAOP limits that are commensurate with changes in class location. TRMC changed its pipeline location from class 1 to class 2 & 3 without confirming if the existing MAOP meets the new class locations.
 - b. **Resolution:** *The Gas O&M Manual Section 4.2.7 was revised to include MAOP limit procedures which correspond to changes in class location.*

- 6) 49CFR192.705 Transmission Lines: Patrolling:
- a. Item: TRMC's new class location study identified its pipeline to be located in both class 2 & 3 areas. TRMC's O&M manuals still require once-a-year ROW patrolling as if the pipeline were in a class 1 or 2 area. The O&M manuals need to be revised to meet the requirements of 49CFR192.705 (b).
 - b. Resolution: *The Gas O&M Manual Section 4.3.5 was revised to meet the regulatory patrol frequency for class 2 and 3 locations.*
- 7) 49CFR192.706 Transmission Lines: Leakage Surveys:
- a. Item: TRMC's new class location study identified its pipeline to be in a class 2 & 3 area. TRMC, in its O&M manuals, still require once per year leakage survey. The O&M manuals need to be revised to meet the periodic survey requirements of 49CFR192.706
 - b. Resolution: *The Gas O&M Manual Section 4.3.20 was revised to include the periodic leakage survey requirement for class 2 and 3 locations.*

Attachment 2: Tesoro O&M Manual Section 4.3.2

4.3.2 Pipeline Repairs and Modification

Any repairs to the pipelines shall be made in accordance with the regulations, this manual, and the codes and standards listed at the end of this section.

Tesoro welding activities shall be performed by Welders that are qualified with Welding Procedures that are qualified under API 1104 19th Edition – Section 5 or ASME Boiler and Pressure Vessel Code 2004 Edition – Section IX (See the Tesoro Welding Manual – Section 2). The quality of the test welds used to qualify the welding procedure shall be determined by destructive testing.

All work shall be performed by persons qualified by training and testing to perform the appropriate repairs (welders according to API 1104 19th Edition – Section 6, or ASME Boiler and Pressure Vessel Code 2004 Edition - Section IX).

The surfaces to be welded shall be smooth, uniform, free of fins, laminations, tears, slag, grease, paint and other deleterious material, which may adversely affect the welding, in accordance with API 1104 19th Edition – Section 7 (See Tesoro Welding Manual – Sections 5 & 10).

A specific repair plan will be prepared by the Area Engineer. The affected facilities will then coordinate with the Regional Manger. If a bill of materials or contract is needed, then a work order will also be generated. The Operations Supervisor &/or Regional Manager will coordinate required work in a safe manner with minimal interruption of normal operation.

Local conditions, such as pipeline content, metallurgy, location, proximity to structures, topography, and even weather, will have a bearing on the approach to any particular repair or modification. Circumstances will, in some instances, make additional procedures and precautions prudent.

Welding shall not be done when the quality of the completed weld would be impaired by the prevailing weather conditions, including but not limited to airborne moisture, blowing sands or high winds. Windshields may be used when practical. The company representative shall decide if the weather conditions are suitable for welding (see the Tesoro Welding Manual - Section 5).

(Reference – 49 CFR Part 192.225; 192.227; 192.231)

In general, the following preparations and precautions will be required, but not necessarily in the order listed:

- Excavation Accident Prevention

At least 48 hours prior to any subsurface construction activity, Tesoro personnel will notify "Dig Alert" (800-227-2600, 800-422-4133, or 811) to identify third party subsurface facilities in the area (see Section 4.2.18).

– Operational Preparation of Line

Before any pipe movement is undertaken, the pipeline will be shutdown or the operating pressure reduced to less than 50% of MOP.

– Positive Line Identification

The line shall be positively identified prior to any work. This shall include the positive identity of the line's contents.

– Line Specification Determination

A determination of the grade of pipe, size, wall thickness, and specification shall be made prior to commencing work (refer to P&ID drawings at minimum). If there are any doubts concerning the remaining wall thickness, an inspector shall ultrasonically determine the wall thickness.

– Cathodic Protection System

If the affected portion of the line is protected by an impressed current cathodic protection system, the type of repair may require the cathodic rectifiers to be tuned-off for the duration of the repair work. Any work that will break the electrical continuity of the line (separating flanges, removing cylinders of pipe, etc.) will require the shutdown of the cathodic protection rectifiers. In addition, an electrical jumper or bonding cable (welding lead cable or equal) will be connected to the line across the repair zone to further protect against any cathodic protection, induced current, or related electrical arcs that could ignite flammable vapors.

– Define Work Area

The work area will be defined to provide adequate space to perform the work and to identify areas where an increased hazard may exist to company personnel and the public. The monitoring of flammable and/or toxic gases must be continuous when hazardous liquids and/or gases are present or the line is open. The LA Refinery will be consulted for additional safety information and job site monitoring. The work area will be defined by the erection of signs, barricades, and guards necessary to exclude unauthorized persons in the work area. It may be necessary to divert traffic, stop local activity, and evacuate persons out of the work area.

Toxic gases or vapors, such as hydrogen sulfide, require special caution. Inhalation of high concentration of these gases or vapors can cause collapse or death in a few minutes. Entering areas where toxic materials are present must be avoided except to save or protect human life. When it is necessary to enter an area containing toxic materials the following minimum precaution should be taken:

- wear self-contained breathing apparatus,
- wear protective clothing, as necessary
- have a safety line attached and continually attended, and

- have another person similarly equipped standing by.

The number of people entering the danger area should be limited to those necessary to accomplish the assigned task. All others should remain in a safe area ready to render support using the appropriate personal protective equipment and assistance if necessary.

When it is necessary to enter an excavated trench for the purpose of conducting repairs on the pipelines, adequate precautions shall be taken to protect personnel from the hazards of engulfment. Such precautions may include use of rescue equipment and harnesses, sloping and/or bracing of trench walls, and piling excavated materials at a safe distance away from the trench.

- Fire Prevention

When the maintenance activity involves hot work or where other fire hazards exist, an adequate number of fire watch posts shall be established. The fire watch personnel shall have no other duties other than fire watch. The work may require the acquisition of a hot work permit from Operations.

- Operational Coordination

The repair work shall proceed with continuous communications and coordination's with upstream and downstream operation units that are affected by the work. The work may require the acquisition of safe work permits from Operations. The coordination may involve the lock-out/tag-out of operating equipment connected to the line to further ensure the safe operation of the line. Lock-out/tag-out of operating equipment must be coordinated with the Operations Supervisor.

- Outside Agency Involvement

Establishment of contact with property owners, local authorities, and law enforcement agencies may be necessary for some maintenance activities (work within the city streets, work on private land, etc.).

- Tailgate Safety Meeting/Acknowledgement of Work Permit

All personnel shall be briefed prior to the commencement of work as to the procedures to be followed and the precautionary measures to be taken. Special emphasis should be placed on precautions with regard to flammable and/or explosive vapors and toxic and/or asphyxiant substances. The briefing shall also include the procedures for reporting and responding to a spills and fires. All work permits must be acknowledged once work permits have been mutually agreed upon.

- Materials

All materials to be used in repairs and modifications will be inspected visually, at a minimum, by a qualified inspector to ensure their suitability for the purpose intended. Metal components, other than pipe, are qualified for use when a visual inspection of the cleaned components shows no defect which might impair strength or tightness, and the documentation under which the component was manufactured shows equal or more stringent requirements than existing system requirements.

- Construction Inspections and Testing

The construction will be inspected by qualified inspectors to assure the construction is in conformance with all applicable codes, specifications, and standards. The inspectors will be qualified by training and experience. Welds will be inspected for defects through non-destructive (NDT) examination according to API Standard 1104 19th Edition – Section 9 (See Tesoro Welding Manual – Section 7). After any new piping, repair piping, or other facility installations are completed, any affected facilities, not pre-hydrostatically tested, will be hydrostatically tested according to the guidelines of Section 4.3.17 of this manual.

- Pipe Replacement

One method of repairing defects in the pipelines is by removal of the defective pipe as a cylinder. Replacement pipe shall be equal to, or have greater design strength than, the pipe to be replaced. Great differences in wall thickness and strength require special considerations and should be avoided whenever possible.

When the wall thickness of the carrier pipe and the replacement pipe differ, a transition bevel shall be provided on the inside of the thicker pipe.

The use of very short replacement joints shall be avoided. On the pipelines, the minimum length of pipe replacement sections should be three pipe diameters. In manifolds, the length should be one pipe diameter when possible. If one pipe diameter is not possible, the replacement length shall be adequate to avoid overlap of heat affected zones. When it is practical, replacement pipe should be installed by the butt welding method. Miter bends and joints are not permitted. Deflections caused by misalignment up to three degrees are not considered a miter (See Tesoro Welding Manual – Section 6).

If it is practical, a line to be cut shall be displaced with water or nitrogen. When it is not practical to make the line completely vapor free, a system of plugging will be necessary. Refer to API 2209, "Pipe Plugging Practices".

- Weld Couplings

Weld end couplings may be used when butt welding of the replacement pipe cylinder is impractical. Weld end couplings must be applied in accordance with the manufacturer's instructions. All clamp and thrust screws must be cut off and seal welded. The ends of the weld end coupling shall also be seal welded.

- Weld Sleeves

The use of full encirclement welded split sleeves is an acceptable method of repairing defects in the pipe when it is infeasible to take a line out of service for the purpose of replacing a segment of the line. The sleeve must have design strength equal to, or greater than, the line pipe and must be shaped for good fit. Application of the sleeve, shall be in accordance with API 1107. Particular attention is directed to the requirement for mild steel, or equivalent backing strip, behind the longitudinal weld. This is a mandatory code requirement and not optional.

- Patches

Patches are used on the pipelines when minor external corrosion is discovered. For gas pipelines, welded patches may be used as a means of repair only when repairing a leak due to a corrosion pit where a properly designed bolt-on-leak clamp is used or if the leak is due to a corrosion pit and on pipe of not more than 40,000 psig SMYS. If repair to a corrosion pit is made by means of a welded patch on a line of not more than 40,000 psig SMYS, the repair may be made by fillet welding over the pitted area a steel plate patch with rounded corners, of the same or greater thickness than the pipe, and not more than one-half of the diameter of the pipe in size.

- Degaussing

When pipe has been subjected to electromagnetic inspection, it may become magnetized. Instability in welding could be caused by residual magnetism. The removal of the residual magnetism (degaussing), can usually be accomplished by wrapping the welding leads around the pipe, first in one direction, then the other, while the welding machine is in operation.

- Hot Tapping

Tesoro shall utilize hot-tap qualified workers for each hot tap performed on a pressurized pipeline. Prior to hot-tapping, the pressure at the point of welding shall be reduced to 400 psi or as low as practical, but in no case greater than 400 psi without authorization from the Environmental Compliance Manager (ECM). In no case shall the pressure be allowed to go below atmospheric pressure. Commodity shall be moved through the pipeline to help dissipate the heat caused by the welding. Before hot-tapping the pipeline, the flow rate shall be reduced to a minimum of 1.3 feet/second and maximum of 4 feet/second. The

Tesoro Welding Manual contains the Tesoro-approved welding procedures.

- Support of Pipeline

Pipe and other components must be adequately supported during construction and installation in such a way that the support does not cause excessive localized stresses in the pipelines. The Area Engineer should be consulted for maximum unsupported spans for each size of pipe.

- Replacement Fittings

Fittings used in the repair must be of equal or greater strength than the line pipe.

- Corrosion Repairs

Each segment of pipe with general corrosion and with wall thickness less than that required for the MOP of the line, must be replaced or the operating pressure reduced commensurate with the actual remaining wall thickness.

- Dents

A simple dent that does not affect a weld and does not contain a stress riser is defined as a depression that produces a disturbance of the curvature of the pipe without reducing the pipe wall thickness. The depth is measured as the gap between the lowest point of the dent and a prolongation of the original contour of the pipe. No repair is necessary if the depth is ¼-inch or less in 12-3/4-inch (outside diameter) and smaller, or 2% or less of the nominal pipe diameter in sizes over 12-inch. If a depth exceeds these limits, or the dent affects a weld or has a stress riser associated with it, the dent must be repaired or replaced. The repair of dents by pounding of any kind is prohibited.

- Gouges, Grooves, and Arc Burns

Gouges, grooves, and arc burns in the pipe wall create stress concentrations that can lead to a failure in the pipelines. The requirements for removal or repair must be followed, or the operating pressure reduced. Within specified limits, certain gouges, grooves, and arc burns, not located in a dent, may be removed by grinding.

When an arc burn is repaired by grinding, it is necessary that the entire metallurgical notch caused by the burn be removed. Complete removal of the metallurgical notch can be determined as follows. After visible evidence of the arc burn has been removed by grinding, swab the ground area with a 20% solution of ammonium persulfate. A blackened spot is evidence of a metallurgical notch and indicates that additional grinding is necessary. If the resulting wall thickness after grinding is less than that permitted by the

material specification, the segment of pipe containing the arc burn must be replaced.

– Repair of Welds

All defective welds must be removed from service or repaired. For liquid pipelines, defective welds will be repaired in accordance with 49 CFR 195.230.

For gas pipelines, if it is feasible to take the segment of transmission line out of service, the weld must be repaired in accordance with 49 CFR 192.245. The weld may be repaired while the line is in service if the weld is not leaking, the line pressure is reduced to 20 percent SMYS, and grinding is limited so that at least 1/8-inch thickness remains. If the weld cannot be repaired in accordance with the above listed requirements, repair must be made by means of a split sleeve.

– Weld Inspection and Testing

Gas pipeline welds will be inspected and tested in accordance with 49 CFR 192.241. Liquid pipeline welds will be inspected and tested in accordance with 49 CFR 195.234.

– Hydrostatic Testing of Pipelines and Testing of Repairs

Each new, or modified section of an existing liquid pipeline, must be hydrostatically tested. The testing will be performed according to Section 4.3.17 of this manual.

For a gas pipeline repaired by means of a replacement pipe segment, the replacement pipe must be tested to the pressure required for a new line installed in the same location. This test may be made on the pipe before the pipe is installed. Each repair made by welding must be examined in accordance with 49 CFR 192.241.

– Temporary Repairs

Temporary repairs, to stop the escape of hazardous liquids or gases, to protect the public or property, or to make the area safe to work must be replaced, or made permanent, as soon as practical. The use of clamps, other bolt on saddles, or mechanical joints are to be used as first response measures only.

– Installation in a Ditch

When a repaired, relocated, or modified pipeline is installed in a ditch or excavation, it should be installed so that the pipe is supported to minimize line stresses. The ditch and/or excavation shall be back filled in a manner that:

- provides firm support under the pipe,
- prevents damage to the pipe and the coating, and
- provides the required cover and protection.

- Testing Requirements for Reinstating Service Lines

For gas pipelines, each disconnected service line must be tested in the same manner as a new service line, before being reinstated. Each service line temporarily disconnected from the main must be tested from the point of disconnection to the service line valve in the same manner as a new service line, before reconnecting.

- Codes and Standards

The codes and standards listed below are not all referenced in the procedures in this manual. The Area Engineer is responsible for design and construction work on the pipelines, must be familiar with content and requirements of these codes and standards. The following codes and standards apply to the construction activities on the pipelines:

- ASME B31.4 - "Liquid Petroleum Transportation Piping Systems",
- ASME B31.3 - "Refinery Piping",
- API 1104 - "Standard for Welding Pipelines and Related Facilities",
- API PSD 2200 - "Repairs to Crude Oil, Liquefied Petroleum Gas, and Products Pipelines",
- API PSD 2201 - "Welding or Hot Tapping on Equipment Containing Flammable",
- API 2209 - Proposed "Pipe Plugging Practices",
- API RP 1102 - "Recommended Practice for Liquid Pipelines Crossing Railroads and Highways",
- API RP 1107 - "Recommended Pipeline Maintenance Welding Practices",
- API RP 1110 - "Recommended Practice for the Pressure Testing of Liquid Petroleum Pipelines",
- ASME - "Boiler and Pressure Vessel Code, Section VIII, Pressure Vessels, Division 1",
- ASME - "Boiler and Pressure Vessel Code, Section IX, Welder Qualifications",
- OSHA 1910 (29 CFR, Part 1910) - "Occupational Safety and Health Act Standards",
- OSHA 1926 (29 CFR, Part 1926) - "Construction Safety and Health Regulations".
- Los Angeles Refining Company - "Standing Instructions",
- The guidelines of the National Association of Corrosion Engineers (NACE).

(Reference 49 CFR Part 192.11, 605, 715-719,725-727; 195.402, 422)

Attachment 3: Tesoro O&M Manual Section 4.2.6

4.2.6 Change in Class Location – Required Study

Tesoro shall immediately perform a study whenever an increase in population density indicates a change in class location for a segment of an existing steel pipeline operating at hoop stress that is more than 40 percent of SMYS, or indicates that the hoop stress corresponding to the established maximum allowable operating pressure for a segment of existing pipeline is not commensurate with the present class location.

The basis of this study is to determine the following:

- the present class location for the segment involved.
- the design, construction, and testing procedures followed in the original construction, and a comparison of these procedures with those required for the present class location by the applicable provisions of this part.
- the physical condition of the segment to the extent it can be ascertained from available records;
- the operating and maintenance history of the segment;
- the maximum actual operating pressure and the corresponding operating hoop stress, taking pressure gradient into account, for the segment of pipeline involved; and
- the actual area affected by the population density increase, and physical barriers or other factors which may limit further expansion of the more densely populated area.

(Reference – 49 CFR 192.609)

Attachment 4: Tesoro O&M Manual Section 4.2.7

4.2.7 Change in Class Location: Confirmation/Revision of MAOP

Tesoro will confirm or revise the pipeline(s) maximum allowable operating pressure (MAOP) for any segment of pipe with a hoop stress corresponding to the established MAOP of a segment of pipeline is not commensurate with the present class location, and the segment is in satisfactory physical condition. This MAOP confirmation or revision shall be conducted according to one of the following requirements:

(1) If the segment involved has been previously tested in place for a period of not less than 8 hours, the maximum allowable operating pressure is 0.8 times the test pressure in Class 2 locations, 0.667 times the test pressure in Class 3 locations, or 0.555 times the test pressure in Class 4 locations. The corresponding hoop stress may not exceed 72 percent of the SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.

(2) The maximum allowable operating pressure of the segment involved must be reduced so that the corresponding hoop stress is not more than that allowed by this part for new segments of pipelines in the existing class location.

(3) The segment involved must be tested in accordance with the applicable requirements of subpart J of this part, and its maximum allowable operating pressure must then be established according to the following criteria:

- The maximum allowable operating pressure after the requalification test is 0.8 times the test pressure for Class 2 locations, 0.667 times the test pressure for Class 3 locations, and 0.555 times the test pressure for Class 4 locations.
- The corresponding hoop stress may not exceed 72 percent of the SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.

The maximum allowable operating pressure (MAOP) shall be confirmed or revised based on this determination, but may not exceed the MAOP established before this confirmation/revision. Confirmation or revision of the MAOP of a pipeline segment per these procedures does not preclude the application of § 192.553 or §192.555.

Confirmation or revision of the MAOP that is required as a result of a *Change in Class Location Required Study* above, must be completed within 24 months of the change in class location. Any pressure reductions required by this procedure which occur within the 24-month period do not preclude establishing the MAOP at a later date.

(Reference – 49 CFR 192.611)

Attachment 5: Tesoro O&M Manual Section 4.3.5

4.3.5 Rights of Way (ROW)

Liquid Pipelines:

The surface of the liquid pipelines' rights of way (ROW) will be inspected at intervals not exceeding 3 weeks, but at least 26 times each calendar year.

Gas Pipelines:

Tesoro shall perform pipeline right-of-way inspections based upon the size of the line, operating pressures, class location, terrain, weather, and other relevant factors. The maximum intervals between ROW patrols are the following:

Class Location of Line	Maximum Interval between Patrols	
	At Highway & Railroad Crossings	At all Other Places
1 or 2	7 ½ months & at least 2x/yr	15 months & at least 1x/yr
3	4 ½ months & at least 4x/yr	7 ½ months & at least 2x/yr
4	4 ½ months & at least 4x/yr	4 ½ months & at least 4x/yr

Liquid & Gas ROW Inspections:

These liquid and gas pipeline inspections shall be documented on the "Right-of-Way Inspection" report form (see Appendix A - Reporting Forms).

The intent of these Tesoro personnel inspections is to observe the following surface conditions on or adjacent to the pipeline ROW:

- any third party construction activity that may encroach on the pipelines' ROW that could adversely affect the safe operation of the pipelines;
- identify, and correct in a timely fashion, any deficiencies in the pipelines facilities or security as required by this manual;
- identify any otherwise undetectable leaks from the pipelines; and
- inspect the facility security.

It is the responsibility of the Logistics ROW Inspector to ensure that any DOT-jurisdictional liquid or gas pipeline problems found during the ROW audit are recorded, and that work orders are created for issue correction. Currently, Tesoro personnel perform ROW inspections by walking and driving the pipeline right-of-way (ROW).

(Reference – 49 CFR Part 195.412; 192.705; 192.706)

Attachment 6: Tesoro O&M Manual Section 4.3.20

4.3.20 Gas Transmission Line Leakage Surveys

Leakage surveys of gas pipelines will be conducted once every 15 months, but at least once each calendar year.

However, leakage surveys using leak detector equipment shall be performed for transmission lines which transport gas in conformity with § 192.625 without an odor or odorant in the following locations:

- In Class 3 locations, at intervals not exceeding 7 1/2 months, but at least twice each calendar year; &
- In Class 4 locations, at intervals not exceeding 4 1/2 months, but at least four times each calendar year.

Records of surveys will be made on "Right-of-Way Inspection Bi-annual Pipeline Patrol Report" (see Appendix A – Reporting Forms).

(Reference – 49 CFR Part 192.706)