

**ExxonMobil Pipeline Company**

800 Bell Street, Room #603B  
Houston, Texas 77002  
(713) 656-0227 Telephone  
(713) 656-8232 Facsimile

**G.W. (Gary) Hartmann**

Safety, Health And Environment Department  
Manager



February 3, 2011

R. M. Seeley Director,  
Southwest Region  
Pipeline and Hazardous Materials Safety Administration  
8701 South Gessner, Suite 1110  
Houston, TX 77074



Re: **CPF 4-2010-5018M Notice of Amendment**  
ExxonMobil Pipeline Company's BRASS and SLAM Operating Areas

Dear Mr. Seeley:

On July 26 through July 30, and August 23 through August 27, a representative of Pipeline and Hazardous Materials Safety Administration (PHMSA) inspected ExxonMobil Pipeline Company's (EMPCo) BRASS and SLAM operating areas in Louisiana. During the inspection, PHMSA identified perceived inadequacies within EMPCo's Facilities Inspection and Maintenance Management System (FIMMS) *Tank Inspection Program* and *Shorted Casing Program*. Pursuant to Chapter 601 of 49 United States Code, Notice of Amendment (NOA) CPF 4-2010-5018M, dated November 30, 2010, was issued to EMPCo. The Notice was received on December 9, 2010 as Certified Mail and Return Receipt Requested. EMPCo applied for an extension on December 21, 2010. PHMSA granted the request, extending the response time to February 7, 2011.

In response to this NOA, EMPCo has chosen to Not Contest this Notice and has modified the *FIMMS Tank Inspection Program* and *Shorted Casing Program* to include the following:

**FIMMS Tank Inspection Program**

To address the concerns listed under 49 CFR 195.432 EMPCo has strengthened the FIMMS Tank Inspection requirements to ensure inspection intervals are calculated in accordance with API Standard 653 and supporting documentation is included to demonstrate all assumptions used in the calculations.

EMPCo has revised the Data Management section to better communicate API Standard 653 record keeping requirements including documentation retention periods, documentation location, roles and responsibilities.

Enhancements were made to better identify potential hazardous conditions, safety practices and API procedures by cross-referencing API Publication 2026, "*Safe Access/Egress Involving Floating Roofs of Storage Tanks in Petroleum Service*". Also, EMPCo added additional API Standards, EMPCo Manuals and ExxonMobil Global Practices to the Guidance Material List. A more comprehensive listing of the program revisions can be found in attachment #1.

**FIMMS Shorted Casing Program**

In the subject NOA, PHMSA identified inadequacies in EMPCo's plans or procedures related to 49 CFR 195.575 (c) which requires that electrical isolation be inspected and electrically tested to assure adequate isolation. Specifically, PHMSA indicated that casings that are discovered that do not have test leads or casing vents to allow for monitoring electrical isolation must be addressed within one year of their discovery consistent with the "prior to next required inspection" guideline.

In response to PHMSA's assertion, EMPCo revised our Facilities Inspection and Maintenance Manual (FIMMS) Shorted Casing Program and Cathodic Protection Program. Language in both Programs was strengthened to indicate that all known casings will be monitored annually for electrical isolation from the carrier pipeline. A process was also developed to notify Area Management of any known casings that are not monitored for electrical isolation. Please see Attachment 2 for additional details demonstrating the Program enhancements EMPCo is proposing.

The intent of this letter is to provide a detailed response to the assertion of inadequate procedures without the need of a formal hearing. However, if a solution to this matter cannot be agreed upon based on the information provided in this correspondence, EMPCo reserves the right to request a formal hearing on all issues outlined in the Notice, at which time EMPCo would be represented by counsel. Please confirm whether this response is satisfactory to address the subject Notice of Amendment CPF 4-2010-5018M.

Please contact Kirwin L Yates at (225) 324-3055 or [kirwin.l.yates@exxonmobil.com](mailto:kirwin.l.yates@exxonmobil.com) for any additional questions.

Sincerely,



**G.W. (Gary) Hartmann**

Safety, Health and Environment Department Manager

*Attachments:*

*Tank Inspection Program Enhancements*

*Shorted Casing Program Enhancements*

**Attachment #1:**

**Tank Inspection Program**

**1.) § 195.432 Inspection of in-service breakout tanks.**

*(a) Except for breakout tanks inspected under paragraphs (b) and (c) of this section, each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, inspect each in-service breakout tank.*

*(b) Each operator must inspect the physical integrity of in-service atmospheric and low-pressure steel aboveground breakout tanks according to API Standard 653 (incorporated by reference, see §195.3). However, if structural conditions prevent access to the tank bottom, the bottom integrity may be assessed according to a plan included in the operations and maintenance manual under §195.402(c)(3).*

*(c) Each operator shall inspect the physical integrity of in-service steel aboveground breakout tanks built to API Standard 2510 according to section 6 of API 510.*

*(d) The intervals of inspection specified by documents referenced in paragraphs (b) and (c) of this section begin on May 3, 1999, or on the operator's last recorded date of the inspection, whichever is earlier.*

**a.)** EMPCo's procedure covered by the **FIMMS Tank Inspection Program, shown on the EMPCo Reference Library, dated October 16, 2001**, stated the above requirements, but lacked sufficient detail to ensure that the inspection intervals are calculated in accordance with API Standard 653 and that sufficient documentation to demonstrate that the assumptions used in the calculations are based upon valid corrosion rates, sound engineering judgment, and the applicable requirements of API Standard 653 were readily available.

**To address the concern of tank inspection intervals and corrosion rate calculations, EMPCo has revised the Tank Inspection Program to contain the following:**

**I. RESOURCES**

- Program Steward: Tank Maintenance Specialist - Planner/Scheduler
- Field Stewards: Field Supervisor or their designee
- Qualified Inspectors:
  - Owner /Operator personnel assigned by Area Operations
  - Corrosion Specialist
  - Authorized Inspector/API Certified Inspector  
(See Planning Section for Inspector's Qualifications)
- TMS: Tank Maintenance Specialist
- Databases: SAP PM, Action Tracker, or other maintenance scheduling tool

**4. API 653 External Tank Inspection**

**Requirements**

- API 653 requires a visual external inspection by an Authorized Inspector who is certified in API 653. This inspection must be conducted every 5 years or at the quarter corrosion rate life of the shell,

whichever is less. This inspection can be conducted in-service. See GP-09-77-35 for recommended Global Practices.

- The Field Steward will schedule the formal external inspection with a qualified contractor. The TMS or Engineering Tank Specialist can assist in recommending qualified contractors that have Authorized Inspectors to perform this inspection.
- The Authorized Inspector will conduct the inspections required and prepare a formal API 653 External Report with the inspection findings.
- The Field Steward and TMS will review the inspection report to determine if any repairs need to be conducted.
- The inspection report and any repair documentation associated with the report will be maintained indefinitely at the facility for future reviews and audits.
- A copy of the report must be forwarded to the Program Steward for filing in EMPCo's Central Database.
- The Field Steward will update SAP PIM or other maintenance tracking tool for the next prescribed inspection interval.

#### **5. API 653 Internal Tank Inspection**

##### **Requirements**

- API 653 requires that tanks be given an internal inspection by an Authorized Inspector who is certified in API 653. This inspection is primarily conducted to ensure that the bottom is not severely corroded and leaking. The inspections must be conducted, at intervals defined in API 653 section 6.4.2.1. The frequency for an internal out-of-service inspection is generally based as follows:
  - At least every 20 years if the corrosion rate is known, unless the bottom minimum thickness will be less than required at the 20 year interval.
  - Within 10 years if corrosion rates are unknown.
  - Minimum tank bottom thickness shall be calculated in accordance with API 653 Section 4.4.5.1
  - See GP-09-77-34 for recommended Global Practices
  - API 653 Internal Tank Inspection can take anywhere from 1 to 12 months, based on the circumstances. If the tank is in service, it must first be taken out of service, which includes the steps of cleaning and preparing the tank for the inspection. After the inspection is conducted, mechanical repairs and upgrade work is performed prior to returning the tank back to service.
  - **NOTE:** Please refer to the EMPCo Safety Manual for Safe Working Practices when taking tanks out of service for conducting internal inspections and making repairs; e.g Tank Cleaning Procedures, Hot Work Policy, Confined Space Policy, Tank in-service entry and Internal Floating Roof Access, etc.

b.) EMPCo should revise their procedures to ensure that the requirements to “maintain a complete record file consisting of three types of records,” which is specified in API Standard 653 as all Construction Records, Inspection History and Repair, and Alteration History is met by EMPCo. EMPCo should familiarize themselves with the requirements of the documents to be maintained, as identified in sections

6.8.2 of API Standard 653, and the reports covered by Section 6.9 to ensure that the required records and reports, as well as tank histories are maintained for the life of the facilities.

**To address the record keeping concern, EMPCo has revised the Tank Inspection Program to contain the following:**

**C. DATA MANAGEMENT**

Per API 653 6.8.1 "*Inspection records form the basis of a scheduled inspection/maintenance program. (It is recognized that records may not exist for older tanks, and judgments must be based on experience with tanks in similar services.)*

*The owner/operator shall maintain a complete record file consisting of three types of records, namely: Construction records, inspection history, and repair/alteration history".*

The Facility's Field Steward will maintain all Inspection Reports/Documentation locally. Monthly and Annual reports will be retained for 5 years, and then sent to CIC for future storage.

For all new tanks, construction records will be maintained in the local tank file, in addition to any ongoing tank records in association with repair/alteration that has been made to the tank.

All API-653 External and Internal Inspection reports along with repair history will be maintained at the Facility indefinitely, with a *copy* made available to the Program Steward for filing in EMPCo's Central Database. This will allow review by various departments to conduct technical analyses, determine future inspection intervals and project planning.

After Inspections are completed, Field Steward will set the next inspection interval in SAP PM, Action Tracker or other scheduling tool.

c.) FIMMS references the applicable standards incorporated by reference by 49 CFR 195.3, except API Publication 2026, "*Safe Access/Egress Involving Floating Roofs of Storage Tanks in Petroleum Service.*" EMPCo is required to review and consider the potentially hazards conditions, safety practices and procedures in API Publication 2026 for inclusion in the procedure manual. EMPCo personal demonstrated that this requirement was covered in another part of EMPCo's procedures during the demonstration. However, EMPCo should cross-reference these important safety considerations in FIMMS.

d.) EMPCo's Tank Inspection Program should reference the following Safe Working Practices found in Section 2 of API 653; **API Std 2015**, *Safe Entry and Cleaning of Petroleum Storage Tanks*, **API RP 2016**, *Recommended Practice for Entering and Cleaning Petroleum Storage Tanks*, **API Publ 2207**, *Preparing Tank Bottoms for Hot Work*, **API Publ 2217(A)** *Guidelines for Work in Inert Confined Spaces in the Petroleum Industry*. EMPCo is reminded that the entirety of API Standard 653 has now been incorporated by reference, effective October 1, 2010.

**To correct these inadequacies, EMPCo has revised the Tank Inspection Program to contain the following API Standards, cross reference the following EMPCo Manuals and ExxonMobil Global Practice (GP) guidance.**

**EMPCo Guidance Material**

**American Petroleum Institute Standards**

- API 650 – Welded Steel Tanks for Oil Storage
- API 653 – Tank Inspection, Repair, Alterations and Reconstruction
- API 651 – Cathodic Protection of Aboveground Petroleum Storage Tanks
- API 2015 – Safe Entry and Cleaning of Aboveground Storage Tanks
- API RP 2016 - Recommended Practices for and Cleaning Aboveground Storage Tanks
- API 2207 - Preparing Tank Bottoms for Hot Work
- API 2217A – Guidelines for Work in Inert Confine Spaces in the Petroleum Industries
- API 2026 – Safe Access/Egress Involving Floating Roofs of Storage Tanks in Petroleum Service.

**EMPCo Guidance Material**

- EMPCo [Source Inspection Handbook](#)
- [DOT Liquid Manual](#)
- [EMPCo Safety Manual](#)
- [GP-09-77-35](#) AST In-Service Inspection Checklist
- [GP-09-77-34](#) AST Out of Service Inspection Checklist
- [GP-19-77-19](#) Annual Cathodic Protection Survey Requirements

**Attachment #2:**

**Shorted Casing Program**

2. § 195.575 *which facilities must I electrically isolate and what inspection, test and safeguards are required?*  
(c) *You must inspect and electrical test each isolation to assure the isolation in adequate.*

EMPCo’s FIMMS Shorted Casing Program, dates October 5, 2009, allows that a casing having no test leads or casing vents, commonly referred to as a “ghost casing” to be monitored on a five year interval by in-line inspection tools. However, the EMPCo procedures for electrical isolation monitoring are on an annual basis, NTE 15 month cycle, are a performed as part of the annual survey. Prompt remedial action for the cathodic protection deficiencies is commonly understood and accepted to be “prior to the next required inspection” and was the understanding of the EMPCo field Corrosion personnel interviewed in both BRASS and SLAM operating areas. Ghost casings remedial actions need to be addressed in a timelier manner than five years, and should be established within a year of their discovery, consistent with the electrical isolation inspection intervals.

**To address the concerns of the NOA EMPCo has revised the Shorted Casing Program by adding the following *italicized* text:**

**B. COMPLIANCE CRITERIA**

In compliance with existing state and federal Department of Transportation (DOT) regulations, EMPCo's Shorted Casing Program is as follows:

1. *All known casings will be monitored annually for electrical isolation from the carrier pipeline.*
2. A casing will be suspected to be metallically shorted to the pipeline if the difference between the casing-to-soil (C/S) potential and the pipe-to-soil (P/S) potential is 100 mv or less.  
A suspected shorted casing as defined in Item 2 (above) will be tested to determine if the casing is metallically shorted. **Until the casing test is conducted, the suspected shorted casing will be treated as a metallic short and will be monitored as described in Item 4 (below).**
3. Existing casings will be removed when feasible.
4. Where it is not feasible to remove the casing, where applicable, metallic shorts will be cleared, filled with high dielectric filler, or monitored for hydrocarbon vapors.  
  
Filling the annular space with dielectric filler displaces oxygen and water or other electrolytes, which are necessary for corrosion to occur.
5. In-Line inspection (ILI) tools may be used to detect corrosion of line pipe inside casings and to identify locations of casings. Guided-Wave Ultrasonic Testing (GWUT) is another method used for detecting corrosion of carrier pipe inside casings. *ILI and GWUT are not acceptable methods for determining electrical isolation.*

If a casing is detected by an ILI tool and the casing has no CP data (*i.e. is not being monitored annually for electrical isolation*), the casing will be addressed as follows:

Consideration should be given to removal of all such casings. Where removal is not feasible, install test leads and/or vents where possible and add to the CP monitoring program within one (1) year. Where installation of vents and test leads is not practical or feasible (like in a river crossing or flood plain) and the ILI or GWUT shows little or no corrosion or other problems which could create an integrity condition, the pipeline condition will be reassessed when the next ILI or GWUT is conducted. Significant corrosion detected inside a casing will be identified during the data integration process of the Integrity Management Program (IMP).

Corrosion identified during ILI or GWUT is assumed to be "growing" unless previous inspections verify that growth has been arrested by preventative and mitigative methods. If corrosion is not mitigated, a growth rate of the depth of corrosion is established. - EMPCo IMP Manual, Sec. 5.3.1.1.

- A complete record of these tests, growth rate calculations, and any remedial actions taken shall be kept by each Area. All known casings that are not monitored annually for electrical isolation must be listed on Form PL-2392 entitled CASINGS NOT MONITORED FOR ELECTRICAL ISOLATION (Attachment VII). The form must be completed annually and ascended from the Tech. through the chain of command to the Area Manager for approval. An action plan will be developed to facilitate monitoring for electrical isolation.

Known casings that are not monitored annually for electrical isolation must also be included on the Corrosion Action Plan.

Example PL-2392:

### EXXONMOBIL PIPELINE COMPANY CASINGS NOT MONITORED FOR ELECTRICAL ISOLATION

**Business Unit:** Central South Crude & Products  
**Area:** Friendswood

Cost Center	Name of Pipeline System	Diameter of Pipeline & Casing	Pipeline Commodity	Location of Cased X-ing	Stationing	Date Discovered	Action Plan	Completion Date
Example -								
C942578	Genoa Jct. - Webster	24" X 28"	crude	Dixie Farm Rd. x-ing	532+20	During Dec. '10 ILI		

Title	Signature	Date
Engineering/Corrosion Tech:	_____	_____
Front Line Supervisor:	_____	_____
Area Supervisor or FOS:	_____	_____
Area Manager:	_____	_____