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July 12, 2012

re: 2012 Natural Gas Public Awareness Inspection – Cardinal Glass

David Lykken  
Pipeline Safety Director  
Washington Utilities and Transportation Commission  
1300 S. Evergreen Park Dr. SW  
Olympia WA, 98504-7250

Dear Mr. Lykken:

Please find attached the Cardinal Glass response to the 2012 Natural Gas Public Awareness Inspection

Should you have any questions please do not hesitate to contact us directly.

Sincerely,



Steve Smith  
Plant Manager  
Cardinal FG

cc Cosentino Consulting Inc.  
Pipeline facility files

## Response to 2012 Natural Gas Public Awareness Inspection – Cardinal Glass

### 1. 49 CFR 192.616(b) Public Awareness

*(b) The operator's program must follow the general program recommendations of API RP 1162 and assess the unique attributes and characteristics of the operator's pipeline and facilities.*

#### **Finding(s):**

- a. Cardinal failed to include its emergency and informational phone numbers in its letter to the stakeholder groups.
- b. Cardinal failed to contact the public officials.
- c. Cardinal failed to complete a four year effectiveness evaluation.

#### **Response(s):**

- a. Cardinal will adopt a revised Public Awareness Plan by August 1, 2012 which includes a stakeholder letter that includes both emergency and informational phone numbers. See appendix A for a sample copy of the stakeholder letter and Appendix B for a sample copy of the draft Cardinal Public Awareness Plan.
- b. Cardinal will adopt a revised Public Awareness Plan by August 1, 2012 which provides specific instructions to attempt contact with public officials.
- c. Cardinal will adopt a revised Public Awareness Plan by August 1, 2012 which provides specific instructions for the completion of four year effectiveness evaluations

**ATTACHMENT A**

**DRAFT STAKEHOLDER LETTER**

(Month) 2012

This mailing has been sent to you as part of the Cardinal FG public education program, as required by State of Washington and the United States Department of Transportation pipeline safety regulations.

Cardinal FG owns and operates a natural gas pipeline in Lewis County, Washington. The pipeline begins at the Williams Pipeline Facility located at 156 Meier Road West in Winlock WA and ends at the Cardinal FG facility located at 545 Avery Road West in Winlock WA. The pipeline is mainly located in the right of ways of Interstate 5 and Antrim Road. A map of the pipeline route is on the reverse side of this letter.

Your property is located adjacent to or near the Cardinal FG pipeline or you are a contractor performing work in the Winlock Washington area. The location of the Cardinal FG pipeline, and that of other pipelines in the United States, can be identified by various means. The Cardinal FG pipeline location is generally identified by yellow fiberglass stakes containing the words "Warning" or "Caution" followed by "Natural Gas Pipeline" and a telephone number to call for more information.

The primary cause of damage to pipelines in the United States is due to excavation damage. Accordingly, the State of Washington requires **ANYONE PERFORMING EXCAVATION**, which could mean performing work as complicated as installing new utilities or as simple as tilling for a new garden, **MUST CONTACT THE LOCAL ONE-CALL SERVICE FOR TO LOCATE UNDERGROUND UTILITIES.**

**48 HOURS BEFORE YOU EXCAVATE, AUGUR, GRADE, TRENCH, OR BLAST, Contact the Washington State One Call Center at 800-424-5555 and request that any pipelines or other utilities on your property be located before you begin work. THERE IS NO COST TO YOU for this service.**

### How do I recognize a pipeline leak?

1. **By Sight:** Any of the following could indicate a pipeline leak - dirt being blown into the air, water bubbling or being blown in the air, fire coming from the ground or appearing to burn above the ground, dead or dying vegetation in an otherwise green area, a dry spot in an otherwise moist field.
2. **By Sound:** A roaring, blowing, or hissing sound could indicate a pipeline leak.
3. **By Smell:** Natural gas has a rotten egg smell.

### What do I do if I think that I have detected a pipeline leak?

#### **CAUTION Natural Gas Is Flammable**

1. Turn off and abandon any motorized equipment you may be operating.
2. Leave the area quickly on foot.
3. Do not light a match, start an engine, use a telephone, switch on/off light switches or do anything that may create a spark.
4. From a safe location, **call 911 and the Cardinal pipeline at (360) 262-3998** with information about the suspected leak.
5. Warn others.
6. Do not drive or walk back into the suspected leak area until emergency response personnel have determined that the area is safe.

If you have any questions concerning the Cardinal FG pipeline, please contact the Cardinal FG Pipeline Manager at (360) 242-4296



**"POINT B"**  
The Cardinal  
pipeline ends  
here

**"POINT A"**  
The cardinal  
pipeline  
begins here

Google

© 2010

Eye alt 14141 ft

W. Avery Rd

N Military Rd

5

12

Image U.S. Geological Survey  
© 2011 Google

46°32'09.56" N 122°54'00.60" W elev. 460 ft

Imagery Date: May 1, 2009

**ATTACHMENT B**  
**DRAFT CARDINAL PA PLAN**



**CARDINAL PIPELINE  
PUBLIC AWARENESS PLAN**

**DRAFT**

**REVISION 1**

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## REVISIONS AND UPDATES

Revision	Description	Issue Date	Originator
0	Initial Issue	May 14, 2012	CCI
1	Revised manual cover to coordinate format with all other CCI manuals. Incorporated body of plan into filing system which integrates all affected public contacts.	September 1, 2011	CCI

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## OVERALL PROGRAM ADMINISTRATION

### I. Program Objectives

The goal of the CARDINAL Pipeline Public Awareness Program is to enhance public safety by educating the affected public, emergency officials, local public officials and excavators working and living near CARDINAL Pipeline pipelines. Stake holders will receive safety information about pipeline routes, how to identify and react to potential pipeline emergencies and information on how to contact CARDINAL Pipeline to report problems. All stake holders will also receive information on how to prevent potential pipeline problems by reducing third party damage through the use of Washington 811 before doing any excavating. CARDINAL Pipeline is committed to the safe operation of our pipelines and is dedicated to the protection of our employees and the public.

To achieve this goal, CARDINAL Pipeline works with Washington 811, pipeline awareness and educational organizations, informed employees and other pipeline companies to distribute information that is not only beneficial, but helpful to the overall success of this program increasing the stakeholders' awareness concerning pipeline operations and safety.

**Public Awareness of Pipelines:** The CARDINAL Pipeline Public Awareness program educates by raising the awareness of the affected public and key stakeholders to the presence of pipelines in their community and increases their understanding of the role pipelines play in safely transporting energy.

A more informed public:

- Understands that while pipeline accidents are possible, pipelines are a safe mode of transportation.
- Understands that CARDINAL Pipeline undertakes a variety of measures to prevent pipeline accidents.
- They can contribute to the reduction or prevention of emergencies and/or releases by reporting unusual activity near CARDINAL Pipeline's routes.
- Should have the knowledge of how to identify a problem occurring on or near a CARDINAL Pipeline and how to notify CARDINAL Pipeline.
- Understands that the public has a significant role in helping to prevent accidents that are caused by third-party damage and Right-of Way encroachment.

**Prevention and Response:** The Public Awareness program is designed to help the public understand the steps that should be taken to prevent and respond to pipeline emergencies. "Prevention" refers to the objective of reducing the occurrences of pipeline damage and emergencies caused by third-parties through education about safe excavation practices, the use of Washington 811.

The "Response" steps are intended to protect life, property and the environment, and to promptly notify CARDINAL Pipeline and emergency response officials in the event of a release or pipeline emergency.

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## INFORMATION TO BE COMMUNICATED TO THE AFFECTED PUBLIC

Affected Public includes residents, businesses, landowners, schools and HCA areas.

- The fact they live or work near a CARDINAL Pipeline.
- The hazards associated with living near the pipeline.
- What procedures CARDINAL Pipeline has in place to prevent accidents from happening on the pipeline.
- What measures CARDINAL Pipeline takes to limit damage in case of an accident.
- How to recognize and respond to a pipeline emergency.
- What protective actions to take in the unlikely event of a pipeline release.
- How to notify CARDINAL Pipeline regarding questions, concerns, or emergencies
- How to assist in preventing pipeline emergencies by following safe excavation/digging practices and reporting unauthorized digging or suspicious activity.
- How individuals can create undesirable encroachments upon a pipeline ROW
- How to contact CARDINAL Pipeline with questions or comments about public safety, additional information about High Consequence Areas located in their area, land use practices and emergency preparedness or other matters.

## INFORMATION FOR LOCAL PUBLIC OFFICIALS

- Information regarding CARDINAL Pipeline pipelines that cross their area of jurisdiction.
- Land use practices associated with the pipeline ROW that may affect community safety.
- Hazards associated with unintended releases.
- Procedures and policies that CARDINAL Pipeline uses to prevent accidents and mitigate the consequences of accidents when they occur.
- How to contact CARDINAL Pipeline with questions or comments about public safety, additional information about High Consequence Areas under their jurisdiction, land use practices, emergency preparedness or other matters.

## INFORMATION FOR EMERGENCY OFFICIALS

- How to recognize and respond to a CARDINAL Pipeline emergency.
- Location of CARDINAL Pipeline pipelines that cross their area of jurisdiction, and how to get detailed information about those pipelines.
- The CARDINAL Pipeline emergency contact information and phone numbers.
- Information about the hazards associated with CARDINAL Pipeline pipelines.
- How to contact a CARDINAL Pipeline employee that has the company pipeline emergency response plan for pipelines in their area.
- How to contact CARDINAL Pipeline regarding questions, concerns, or emergencies.
- How to safely respond to a pipeline emergency.

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- What procedures and plans CARDINAL Pipeline has implemented to prevent accidents and mitigate the consequences of accidents if they occur.
- How to contact the pipeline operator with questions or comments about public safety, and how to obtain additional overview information on Integrity Management Programs that protect High Consequence Areas under their jurisdiction.

## INFORMATION FOR EXCAVATORS

- Understanding that digging/excavating in CARDINAL Pipeline ROW may affect public safety, pipeline safety and/or pipeline operations.
- Information about damage prevention requirements in the state where the excavation is to take place.
- Information about state specific Washington 811 requirements.
- Information about safe excavation practices in association with underground utilities.
- How to notify CARDINAL Pipeline regarding a pipeline emergency or damage to a pipeline.
- Hazards associated with products carried by CARDINAL Pipeline pipelines and hazards associated with unintended releases of these products.
- How to contact CARDINAL Pipeline for emergency or non-emergency information.

**Regulatory Compliance:** This program is intended to provide a framework for a public awareness program designed to help in compliance with federal regulatory requirements, as referenced in 49 *CFR* Part 192. The three principal compliance elements include:

### **Public Awareness (49 CFR Parts 192.616):**

CARDINAL Pipeline will establish continuing educational programs to enable the public, appropriate government organizations, and persons engaged in excavation-related activities to recognize a pipeline emergency and to report it to the operator and/or the fire, police, or other appropriate public officials. The program is provided in both English and in other languages commonly understood by a significant number and concentration of non-English speaking population in the operator's area.

### **Emergency Responder Liaison Activities (49 CFR Parts 192.615):**

CARDINAL Pipeline will establish and maintain liaison with fire, police, and other appropriate public officials and coordinate with them on preplanned and actual responses during an emergency.

### **Damage Prevention (49 CFR Parts 192.614):**

CARDINAL Pipeline will carry out a written program to prevent damage to pipelines by excavation activities. The information provided in this program also provides a framework for public awareness programs that may be used for pipeline systems that are not governed by 49 *CFR* Parts 192.

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## II. CARDINAL Pipeline Management Support

**Policy** CARDINAL Pipeline Public Awareness Program is developed to address the PHMSA requirements following the framework of RP 1162, CFR 192. It is CARDINAL Pipeline policy to adhere to the entire requirement and provide the necessary funds to accomplish compliance.

**Management Commitment and Support:** Executive Management of CARDINAL Pipeline has been informed of the requirement for a comprehensive public awareness program, and the methods utilized to achieve compliance. CARDINAL Pipeline is solely responsible for implementation of its Public Awareness Program and compliance with PHMSA regulatory requirements. The Program Administrator is authorized to annually review the program to insure CARDINAL Pipeline's Damage Prevention Program is compliant with PHMSA's objectives.

Sign: \_\_\_\_\_

Date: \_\_\_\_\_

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## III. Program Administration

The success of CARDINAL Pipeline's Public Awareness Program is a shared responsibility. Operations, GIS, and Asset Integrity have aligned goals but differing responsibilities of program administration. The frame work for managing the public awareness program is continually reviewed and improved as needed to enhance the quality of the program. This ensures that the proper information is provided to the correct stakeholder audiences by the appropriate delivery tool within the required frequencies.

### ROLES and RESPONSIBILITIES – Asset Integrity

- **Program Administrator** – Responsible for executive support and securing funding for the CARDINAL Pipeline Public Awareness Program. And will manage the development and implementation of the Public Awareness Program to be compliant with RP 1162 and DOT 192 requirements. When the program needs to be modified, the Program Administrator is responsible for making such modifications. The Program Administrator will; as necessary, review, provide input and communicate identified changes. As changes are made to the program, the latest program version will be made available to employees. The Program Administrator reviews and approves vendors, trade associations, and non-profit organizations used in the Program. The Program Administrator will work with various intra-company personnel, vendors, trade associations, and nonprofit organizations to ensure the success of the Program, make certain Program audits are completed, findings are documented and appropriate implementation occurs. As feedback is provided by the evaluation of the program's effectiveness, the Program Administrator will document and incorporate needed changes to make the program more effective in accordance with the program's record keeping procedures. Ensure that field personnel understand the importance of their role in public awareness and pipeline safety. Provide the necessary training so that field personnel understand the Program requirements and can effectively implement the program to comply with federal and state requirements.

### ROLES and RESPONSIBILITIES - Operations

- **Area Supervisor** - Responsible for implementation of the Public Awareness Program in the asset. At a minimum, perform liaison activities with emergency responders. Designates people on their staff to carryout responsibilities of the program and to attend public awareness association meetings held for the purpose of providing specific information about CARDINAL Pipeline. Designate employee(s), to collect and maintain the necessary documentation of compliance to CARDINAL Pipeline Public Awareness Program.

## IV. Pipeline Assets Included in the Program

All Pipelines operated by CARDINAL Pipeline and regulated by 49 CFR 192, and state specific damage prevention requirements will be included in the CARDINAL Pipeline Public Awareness Program.

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## V. Stakeholder Audiences

In general, the CARDINAL Pipeline Public Awareness program shall communicate relevant information based on the following stakeholder audience table:

### Stakeholder Audience Table

#### The Affected Public

Stakeholder Audience	Audience Definition	Examples
Residents located adjacent to the transmission pipeline ROW within 660 ft. as required by API RP 1162	People who live adjacent to a natural gas and/or hazardous liquid transmission pipeline ROW.	<ul style="list-style-type: none"> <li>• Occupants or residents</li> <li>• Tenants</li> <li>• Farmers</li> </ul>
Gas transmission pipeline customers	Businesses or facilities that the pipeline operator provides gas directly to for end use purposes.	<ul style="list-style-type: none"> <li>• Power plants</li> <li>• Businesses</li> <li>• Industrial facilities</li> </ul>
Places of congregation	Identified places where people assemble or work on a regular basis—on or along a transmission pipeline ROW, unrelated to habitation.	<ul style="list-style-type: none"> <li>• Businesses</li> <li>• Schools</li> <li>• Places of worship</li> <li>• Hospitals and other medical facilities</li> <li>• Prisons</li> </ul>

#### Emergency Officials

Stakeholder Audience	Audience Definition	Examples
Emergency officials located within the asset county	Local, state, or regional officials, agencies and organizations with emergency response and/or public safety jurisdiction along the pipeline route.	<ul style="list-style-type: none"> <li>• Fire departments</li> <li>• Police/sheriff departments</li> <li>• Local Emergency Planning Commissions (LEPCs)</li> <li>• County and State Emergency Management Agencies (EMA)</li> <li>• Other emergency response organizations</li> </ul>

#### Local Public Officials

Stakeholder Audience	Audience Definition	Examples
Public officials located within the asset county	Local, city, county or state officials and/or their staffs having land use and street/road jurisdiction along the pipeline route.	<ul style="list-style-type: none"> <li>• Planning boards</li> <li>• Zoning board</li> <li>• Licensing departments</li> <li>• Permitting departments</li> <li>• Building code enforcement departments</li> <li>• City and county managers</li> <li>• Public and government officials</li> <li>• Public utility boards</li> <li>• Includes local "Governing Councils" as defined by many communities</li> <li>• Public officials who manage franchise or license agreements</li> </ul>

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## Excavators

Stakeholder Audience	Audience Definition	Examples
Excavators located within 10 miles of ROW	Companies and local/state government agencies who are involved in any form of excavation activities.	<ul style="list-style-type: none"><li>• Construction companies</li><li>• Excavation equipment rental companies</li><li>• Public works officials</li><li>• Public street, road and highway departments</li><li>• Timber companies</li><li>• Fence building companies</li><li>• Landscapers</li><li>• Well drillers</li></ul>
Land Developers	Companies and private entities involved in land development and planning	<ul style="list-style-type: none"><li>• Home builders</li><li>• Land developers</li></ul>
One-Call Centers	Washington 811	<ul style="list-style-type: none"><li>• Washington 811</li></ul>

## VI. Message Content

The following items were taken into consideration during the development of this program.

**Message Content:** In order to reach a maximum number of readers and provide the most comprehensive distribution of information in a single effort, a brochure is used as the printed material for all stakeholder groups. The brochure is designed to be easy-to-read and easy-to-understand. The brochure is designed as a self-mailer to increase the rate of readership. The following items were taken into consideration during the brochure design process:

- Create text in both English and other languages that are significant along the ROW
- Provide the CARDINAL Pipeline emergency number, Washington 811.
- Educate the reader how to spot various pipeline markers and determine pipeline locations. Information shall include purpose of pipeline markers and the information on them. An example might be: "markers are used to delineate the approximate location of a pipeline and provide contact information"
- Educate the reader about how pipelines can be damaged, what can happen if they are damaged, and how to prevent damage to a pipeline.
- Emphasize the legal requirements of contacting Washington 811 and in advance of excavation.
- Educate the reader on the signs of a pipeline leak and what they should do in case they suspect a leak.
- Educate the reader on the purpose and reliability of pipelines.

The message content given in group meetings may be different from the printed brochure. The message content is tailored to the particular audience group and meeting purpose.



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## The following items may be included in discussion during group meetings:

### **The Affected Public – Relevant Information**

- Proximity of homes and business places to a pipeline and the availability of the National Pipeline Mapping System (NPMS). The NPMS provides a public viewer which allows general pipeline locations to be viewed one county at a time. It also provides a list of transmission pipeline product types and operators for each county.
- Hazards associated with unintended pipeline releases.
- What CARDINAL Pipeline does to design, operate, maintain, inspect, and test pipelines as well as emergency preparedness to prevent accidents and mitigate the consequences of accidents when they occur.
- How to recognize and respond to a pipeline emergency.
- How to protect themselves and building occupants in the unlikely event of a pipeline release.
- How to notify CARDINAL Pipeline regarding questions, concerns, or emergencies.
- How to assist in preventing pipeline emergencies by following safe excavation and digging practices and reporting unauthorized digging or suspicious activity along the pipeline ROW.
- Education that individuals can create undesirable encroachments upon a CARDINAL Pipeline ROW.
- How to contact CARDINAL Pipeline with questions or comments about public safety or additional summary information.

### **Local Public Officials – Relevant Information**

- Awareness that a pipeline crosses their area of jurisdiction, its location and the availability of the National Pipeline Mapping System (NPMS). The NPMS provides a local and state government viewer which allows access to database for pipeline locations.
- Hazards associated with unintended pipeline releases.
- What CARDINAL Pipeline does to design, maintain, inspect, and test pipelines as well as emergency preparedness to prevent accidents and mitigate the consequences of the accidents when they do occur.
- How to contact CARDINAL Pipeline with questions or comments about public safety, additional information to protect High Consequence Areas under their jurisdiction, land use practices, emergency preparedness or other matters.
- What CARDINAL Pipeline does to maintain ongoing relationships with local public officials.

### **Emergency Officials – Relevant Information**

- CARDINAL Pipeline's top priorities are public safety and environmental protection in any pipeline emergency response.

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- Location of pipelines in their jurisdiction, and location of detailed information regarding those pipelines.
- Who CARDINAL Pipeline is and the emergency contact information for each pipeline.
- Information about the potential hazards of the pipeline.
- Location of site specific emergency response plans with respect to the pipelines.
- How to notify CARDINAL Pipeline regarding questions, concerns, or emergency.
- How to safely respond to a pipeline emergency.
- What CARDINAL Pipeline does to design, maintain, inspect, and test pipelines as well as emergency preparedness to prevent accidents and mitigate the consequences of the accidents when they occur.
- How to contact CARDINAL Pipeline with questions or comments about public safety, additional information to protect High Consequence Areas, emergency preparedness or other matters.
- What CARDINAL Pipeline does to maintain ongoing relationships with local emergency officials.
- Awareness that a pipeline crosses their area of jurisdiction, its location and the availability of the National Pipeline Mapping System (NPMS). The NPMS provides a local and state government viewer which allows access to database for pipeline locations.

## **Excavators – Relevant Information**

- Awareness that digging and excavating along the ROW may affect public safety, pipeline safety and/or pipeline operations.
- Information about damage prevention requirements in that jurisdiction.
- Information about Washington 811 requirements.
- Information about safe excavation practices in association with underground utilities.
- Information on digging related damage due to third parties.
- How to notify CARDINAL Pipeline regarding a pipeline emergency or damage to a pipeline.
- How to recognize a pipeline ROW and signs associated with the ROW.
- Hazards associated with unintended pipeline releases.
- Who CARDINAL Pipeline is and who to contact for emergency or non-emergency information.

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## VII. Delivery Frequencies

The table below summarizes the minimum baseline delivery frequency for each. Information regarding message types is located in DELIVERY METHODS section of this plan.

<b>Audience</b>	<b>Baseline Frequency</b>
Residence Along ROW	Every 2 Years
Places of Congregation Along ROW	Every 2 Years
Emergency Officials	Annually
Public Officials	Every 3 Years
Excavators and Contractors	Annually

In many cases, CARDINAL Pipeline communicates public awareness information through mailings on an annual basis.

## VIII. Delivery Methods and Media

CARDINAL Pipeline uses various methods and tools to effectively communicate with stakeholder audiences. CARDINAL Pipeline recognizes that not all methods are effective in all situations. CARDINAL Pipeline will consider various delivery methods and media discussed in RP-1162. The following table outlines the BASELINE MESSAGE TYPE and possible DELIVERY METHODS of each message for the each stakeholder audience:

CARDINAL Pipeline will utilize alternate methods as outlined in Supplemental Programs section if the Baseline Message and targeted Delivery method are not effective.

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Stakeholder Audience	Message Type	Possible Delivery Method and/or Media
<p><b>Residents located along pipeline ROW and places of Congregation</b></p>	<p><b>Baseline Message:</b></p> <ul style="list-style-type: none"> <li>• Pipeline Markers and their purpose</li> <li>• Pipeline purpose and reliability</li> <li>• Security measures (Homeland Security)</li> <li>• Awareness of hazards</li> <li>• Prevention measures undertaken</li> <li>• Damage Prevention Awareness</li> <li>• One-Call Requirements</li> <li>• Leak Recognition and Response</li> <li>• Pipeline location information</li> <li>• How to get additional information</li> </ul>	<p><b>Baseline Activity:</b></p> <ul style="list-style-type: none"> <li>• Targeted Distribution of Print Materials</li> <li>• Pipeline Markers</li> </ul> <p><b>Supplemental Activity:</b></p> <ul style="list-style-type: none"> <li>• Community Events</li> <li>• Newspaper ads</li> </ul>
<p><b>Emergency Officials</b></p>	<p><b>Baseline Message:</b></p> <ul style="list-style-type: none"> <li>• Pipeline Markers and their purpose</li> <li>• Pipeline location, purpose and reliability</li> <li>• Awareness of hazards</li> <li>• Prevention measures undertaken</li> <li>• Emergency Preparedness</li> <li>• Communications, Company contact and response information</li> <li>• Specific description of products transported and any potential special hazards</li> <li>• How to get additional information</li> <li>• Pipeline location information and availability of NPMS</li> </ul>	<p><b>Baseline Activity:</b></p> <ul style="list-style-type: none"> <li>• Targeted Distribution of Print Materials</li> <li>• Group Meetings (LEPC)</li> </ul> <p><b>Supplemental Activity:</b></p> <ul style="list-style-type: none"> <li>• Personal Contact (generally preferred) OR</li> <li>• Targeted Distribution of Print Materials</li> </ul>
<p><b>Public Officials</b></p>	<p><b>Baseline Message:</b></p> <ul style="list-style-type: none"> <li>• Pipeline Markers and their purpose</li> <li>• Pipeline location and purpose and reliability</li> <li>• Awareness of hazards</li> <li>• Prevention measures undertaken</li> <li>• Copies of materials provided to Affected Public and Emergency Officials</li> <li>• Company contacts</li> <li>• How to get additional information</li> <li>• Washington 811 requirements</li> <li>• Emergency Preparedness</li> </ul>	<p><b>Baseline Activity:</b></p> <ul style="list-style-type: none"> <li>• Targeted Distribution of Print Materials</li> </ul> <p><b>Supplemental Activity:</b></p> <ul style="list-style-type: none"> <li>• Group Meetings</li> </ul>
<p><b>Excavators / Contractors</b></p>	<p><b>Baseline Message:</b></p> <ul style="list-style-type: none"> <li>• Pipeline Markers and their purpose</li> <li>• Pipeline purpose and reliability</li> <li>• General location and purpose of pipeline</li> <li>• Awareness of hazards</li> <li>• Prevention measures undertaken</li> <li>• Damage Prevention Awareness</li> <li>• One-Call Requirements</li> <li>• Leak Recognition and Response</li> <li>• How to get additional information</li> </ul>	<p><b>Baseline Activity:</b></p> <ul style="list-style-type: none"> <li>• Targeted Distribution of Print Materials - Brochure</li> </ul> <p><b>Supplemental Activity:</b></p> <ul style="list-style-type: none"> <li>• Group Meetings</li> <li>• Industry magazines</li> <li>• Targeted Distribution of Print Materials - Brochure</li> </ul>
<p><b>One-Call Centers</b></p>	<p><b>Baseline Message:</b></p> <ul style="list-style-type: none"> <li>• Pipeline location information</li> <li>• Requirements of Washington 811</li> </ul>	<p><b>Baseline Activity:</b></p> <ul style="list-style-type: none"> <li>• Membership in Washington 811</li> <li>• Maps (as required)</li> </ul>

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## Process for management of input/feedback/comments received

CARDINAL Pipeline program effectiveness will consist of the following methods or combinations of methods:

The Program Administrator may utilize any of the following data sources

- A third party review of the program to collect, summarize, and report findings to CARDINAL Pipeline
- Review comments from Public Official and Emergency Responder who attend meetings.
- Review notes from Operations contacts with the general public

The Program Administrator, after review of information, may incorporate the pertinent information received into CARDINAL Pipeline Public Awareness program on an annual basis.

## **IX. Supplemental Programs**

Supplemental Programs are implemented when the baseline programs have not been sufficient enough to express the public awareness information intended or the communications were deemed ineffective. Several factors are considered when initiating Supplemental Programs:

- CARDINAL Pipeline will review the effectiveness of the Baseline Program. Should the review determine an ineffective Baseline Program, then Supplemental Programs should be used to improve the effectiveness.
- What is the motivation that drives the stakeholder audience? The message needs to be tailored to the needs and perception of the stakeholder audience, and this can be done through Supplemental Programs.
- Inappropriate behavior by stakeholder audiences may drive the need to initiate Supplemental Programs beyond the baseline message. One of the primary purposes of public awareness is to change public behavior around pipelines.
- The presence of High Consequence Areas where public concentration is significant should prompt the operating asset to consider public awareness activity above the baseline level described in the Baseline Program. It is possible to consider an increase in the frequency of baseline communication as a supplemental communication practice, if it is warranted.
- CARDINAL Pipeline will consider for enhanced program elements are areas with incidents of third party damage, high profile emergency, or areas of known public concern.

Supplemental activities will be added should information be provided regarding certain Relevant Factors along the route of the pipeline system. These certain Relevant Factors include:

- Potential Hazards
- HCA's
- Population Density

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- Land Development activity
- Land Farming activity
- Third-Party damage incidents
- Environmental considerations
- Pipeline history in an area
- Specific local situations
- Regulatory Requirements
- Results from previous Public Awareness Program evaluations
- Places of Congregation (POC)
- Other relevant needs

If supplemental activities are accepted into the area of operation program, documentation as to when, what, and where supplemental program enhancements are used will be added to the program documentation.

<b>Stakeholder Audience</b>	<b>Message Type</b>	<b>Delivery Frequency</b>	<b>Delivery Method and/or Media</b>
<b>Residents located along pipeline ROW and places of Congregation</b>	<b>Supplemental Message:</b> <ul style="list-style-type: none"> <li>• Planned maintenance construction activity</li> <li>• Information and/or overview of Integrity Management Program</li> <li>• ROW encroachment prevention</li> </ul>	<b>Supplemental Frequency:</b> <ul style="list-style-type: none"> <li>• Additional frequency as determined by specifics of the pipeline segment or environment.</li> </ul>	<b>Supplemental Activity:</b> <ul style="list-style-type: none"> <li>• Print Materials</li> <li>• Personal Contact</li> <li>• Group Meetings</li> <li>• Mass Media</li> <li>• Open Houses</li> <li>• Other Activities</li> </ul>
<b>Emergency Officials</b>	<b>Supplemental Message:</b> <ul style="list-style-type: none"> <li>• Planned maintenance construction activity</li> </ul>		<b>Supplemental Activity:</b> <ul style="list-style-type: none"> <li>• Emergency Tabletop Deployment Exercises</li> <li>• Facility Tour</li> <li>• Open House</li> <li>• Additional requested information</li> </ul>
<b>Public Officials</b>	<b>Supplemental Message:</b> <ul style="list-style-type: none"> <li>• ROW encroachment prevention</li> <li>• Maintenance construction activity</li> <li>• Provide information and/or review of Integrity measures undertaken</li> </ul>	<b>Supplemental Frequency:</b> <ul style="list-style-type: none"> <li>• If in HCA, more frequent or annual contact with appropriate public safety officials</li> <li>• Otherwise as appropriate to level of activity or upon request</li> </ul>	<b>Supplemental Activity:</b> <ul style="list-style-type: none"> <li>• Personal Contact</li> <li>• Videos and CDs</li> <li>• Additional information in areas where significant ROW encroachments is occurring.</li> </ul>
<b>Excavators / Contractors</b>			<b>Supplemental Activity:</b> <ul style="list-style-type: none"> <li>• Personal Contact</li> <li>• Group Meetings</li> <li>• One-Call Center Outreach</li> <li>• Mass Media</li> <li>• Request One-call center to perform additional public awareness outreach activities</li> </ul>

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<b>Land Developers</b>	<b>Supplemental Messages:</b> <ul style="list-style-type: none"> <li>• General location and purpose of pipeline</li> <li>• Awareness of hazards</li> <li>• Prevention measures undertaken</li> <li>• Damage Prevention Awareness</li> </ul>	<b>Supplemental Frequency:</b> <ul style="list-style-type: none"> <li>• Frequency as determined by specifics of the pipeline segment or environment</li> </ul>	<b>Supplemental Activity:</b> <ul style="list-style-type: none"> <li>• Materials – Brochure - Maps</li> <li>• Personal Contact</li> <li>• Group Meetings</li> </ul>
<b>One-Call Centers</b>	<b>Supplemental Messages:</b> <ul style="list-style-type: none"> <li>• Accurate line location information</li> </ul>	<b>Supplemental Frequency:</b> <ul style="list-style-type: none"> <li>• As changes in pipeline routes or contact information occur or as required by state requirements.</li> </ul>	<b>Supplement Activity:</b> <ul style="list-style-type: none"> <li>• Targeted Distribution of Print Materials</li> <li>• Personal Contact</li> <li>• Maps (as required)</li> <li>• Additional outreach programs</li> </ul>

## X. Program Implementation and Progress

CARDINAL Pipeline program implementation includes funding of the program, employee participation, use of external resources, documentation, and program activities that involve the public, local public officials, emergency officials and excavators. Measuring implementation progress can be done collecting feedback from internal and external sources and update the program and activities as necessary.

### Employee Participation

Area Supervisors are the primary liaison between CARDINAL Pipeline and the Public regarding pipeline activities. It will be the Program Administrator responsibility to ensure employee understanding of program requirements, provide training, and develop an internal auditing process to measure effectiveness

### External Resources

The Program Administrator will utilize external resources and/or consultants for implementation of the CARDINAL Pipeline program as needed. This may include, but not be limited to; mailings, printings, surveys, and audits.

### Program Documentation

A copy of this document and supporting documentation will be kept in CARDINAL Pipeline Records Management System.

### Program Activities

Program activities that will support the implementation and continued management of the Public Awareness program include:

- Printed Materials – ROW Mailing, Limited Response Cards
- Liaison Programs – Public Awareness Associations, Companies Public Awareness Liaison and Community events

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- Face to Face personal contact – Local official meetings

## **Process for management of input/feedback/comments received**

CARDINAL Pipeline program effectiveness will consist of the following methods or combinations of methods:

The Program Administrator may utilize any of the following data sources

- A third party review of the program to collect, summarize, and report findings to CARDINAL Pipeline
- Review comments from Public Official and Emergency Responder who attend meetings or participate in drills.
- Review notes from Divisional Operations groups contacts with the general public

The Program Administrator, after review of information, may incorporate the pertinent information received into CARDINAL Pipeline Public Awareness program on an annual basis.

## **XI. Program Evaluation**

The Public Awareness Program will be monitored on an annual basis to determine how effective the message is received by the stakeholders.

### **Elements of Evaluation**

A baseline will be established for each of the stakeholder group (i.e. households, third party excavators, local governments, and local first responders). Target audience should be evaluated to determine if they understood the message and are able to recognize basic information that was being communicated. This information will be used to evaluate the delivery media, approach and content of the message.

The creation and distribution of baseline public awareness information should follow a 7-step process:

1. Identify the problem or need that should be resolved or addressed through communication
2. Determine which stakeholders receive the communication
3. Identify the draft message to be communicated
4. Develop the final message and delivery system based on marketing strategy best suited for the desired outcome
5. Implement the communication
6. Measure the effectiveness
7. Identify and implement changes if necessary



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This process should be reviewed during the annual evaluation to ensure the actions undertaken in implementing the program are achieving the desired goals and objectives.

## **Supplemental Evaluation**

Other methods CARDINAL Pipeline may want to use to determine if the stake holder audience behavior may have been influenced by a campaign would be:

- Track one call activity immediately after a campaign has been implemented in order to determine if the number of calls to a locate center has increased.
- Interview first responders that have answered calls to a CARDINAL Pipeline incident to determine if the responder's actions were consistent with the information provided to them by CARDINAL Pipeline communications.
- Interview members of households that were affected by a CARDINAL Pipeline incident to determine if incident was correctly recognized, reported in a manner consistent with the CARDINAL Pipeline communication and proper actions were taken to protect public safety.

## **Measuring Success and Selecting a Measurement Strategy**

It is imperative for the success and continued funding of any communication strategy that a way to measure whether the effort is being successful is built in, and that the definition of success is clear. If the measure of success is actual behavior change (for example – using Washington 811), then the method designed as part of the strategy to measure that success needs to measure that behavior.

For major efforts it is also important to make sure that the measurement can take place in a timeframe that allows the effort to be changed if it is not being successful. It is suggested that when possible, the strategy be tested on a small subset of the targeted audience to verify desired results before implementing on the entire targeted audience.

Once all of the above considerations have been researched and decided upon the initial draft message can be reshaped and packaged into final form to ensure that it best fits the strategy of answering who, where, when, and how.

## **Measuring Program Implementation**

The CARDINAL Pipeline program implementation should be evaluated using any of the following methods or a combination of the methods.

- Internal assessment using a working group comprised of CARDINAL Pipeline employees.
- A third party consulting firm hired to audit the implementation of the plan.
- Use of Notice of Amendments and verbal comments from regulatory inspections with federal and state agencies that inspect the program.

The recommendations from these groups should be used to improve the programs design and implementation.

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Some items to be considered when evaluating Program implementation include:

- Are personnel assigned responsibilities in the written program aware of their responsibilities and have management support (budget and resources) for carrying out their responsibilities of the program?
- Has the program implementation been properly and adequately documented?
- Have all required elements of the program plan been implemented in accordance with the written plan and schedule?
- Does the operator have documentation of the results of evaluating the program for effectiveness?
- Are the results of the evaluation of program effectiveness being used in a structured manner to improve the program or determine if supplemental actions (e.g. revised messages, additional delivery methods, increased frequency) are necessary in some locations?

## **Measuring Program Effectiveness**

CARDINAL Pipeline may want to use supplemental methods as indicators of a program when trying to identify and eliminate a problem with the program. Some of additional techniques below may be implemented to address specific problems.

- Track phone inquiries. Callers should be identified by requesting a method on how to get in touch with them again.
- Track information received from bounce back cards if they are used.
- Track the number of officials or emergency responders who attend emergency CARDINAL Pipeline response exercises and simulations.

## **Understandability of the Message**

Assessing the understandability of the message is an important part to the success of this program. If the stake holders cannot understand the message that has been sent to them then modifications must be made to clarify the message. The clarification may be accomplished by face to face meetings, web based surveys, e-mail, telephone, or written surveys.

## **Bottom-Line Results**

To establish a baseline of incidents and consequences by third party excavators for future comparison, CARDINAL Pipeline will track the number of dig-ins that result in pipeline failure, pipe damage, near misses and other incidents by third party excavators. Once the baseline is established, it should be compared to data gathered subsequent years to see if a reduction has occurred in the number of incidents. Data will be tracked to provide a means of judging the effectiveness of the program overall and possibly identify areas within the country that may need additional emphasis in educating third party excavators. This data should be observed over a period of time in order to determine trends.

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## Summary of Baseline Evaluation Program

The following table provides a summary of a baseline evaluation:

<b>Evaluation Approaches</b>	<b>Evaluation Techniques</b>	<b>Recommended Frequency</b>
Self-assessment of Implementation	Internal review, third party assessment, regulatory inspection	Annually
Test Effectiveness of Materials	External Focus groups comments from reply cards	Upon design or major redesign of public Awareness program materials or messages.
Evaluation of effectiveness of program implementation: <ul style="list-style-type: none"><li>• Outreach</li><li>• Level of Knowledge</li><li>• Changes in behavior</li><li>• Bottom Line results</li></ul>	<ol style="list-style-type: none"><li>1. Survey: Can assess outreach efforts, audience knowledge and changes in behavior<ul style="list-style-type: none"><li>• CARDINAL Pipeline-designed and conducted survey</li><li>• Use of pre-design survey by third party</li><li>• Trade association conducted survey</li></ul></li><li>2. Assess notifications and incidents to determine anecdotal changes in behavior</li><li>3. Documented records and industry comparisons of incidents to evaluate bottom-line results</li></ol>	No more than four years apart
Implement changes to the Public Awareness Program as assessment methods suggest.	Combined analysis	As required by findings of evaluations

## Assessment of Results of Evaluations

Results from any of the methods employed by CARDINAL Pipeline will be reviewed annually with the exception of four year combined data. Should these results show program areas that need to be improved, it will be the responsibility of the Program Administrator to provide solutions. The outcome of the input will be incorporated into the following year's program and subsequently evaluated for its effectiveness.

As part of the evaluation process, the measures should reflect whether the program is being implemented as planned; the process, and whether the program is effective; program effectiveness. The results of these evaluations will indicate if changes to the programs implementation process, stakeholder identification effort, messages, or frequency needs to be made.

As such, an annual review of the program will be made to ensure the program has followed the guidelines set forth in API RP 1162.

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## **XII. Continuous Improvement**

As part of the continuous improvement process of this program, CARDINAL Pipeline may from time to time redirect its efforts to better educate the public about pipeline safety. Changes that improve program implementation can also be documented as continuous improvement.

Program changes may be in areas such as:

- audience,
- message type or content,
- delivery frequency,
- delivery method,
- supplemental activities or
- other program enhancements as deemed necessary.

### **Documentation of Program Changes**

A log of changes to the program will be maintained to document periodic review and modifications to the plan as improvements are made.

### **Implementation of Program Changes**

As changes are made to the public awareness program, those changes will be communicated internally to the appropriate affected parties.