
Task 14.1—Locate Line

1.0 Task Description

This task includes establishing the location of a pipeline and may also include determining the depth of the cover. This task requires the use of maps, mapping software, drawings, and locating equipment. A variety of line locating tools and methods can be used to locate a line; this task is not specific to any one tool or method.

This task begins when the need to locate a line has been identified. This task ends when the line has been located and, if required, depth of cover has been determined and documented.

This task does not include but may lead to the performance of other covered tasks such as:

- Install, Inspect, and Maintain Permanent Marker (Reference Task 14.2).
- Install, Inspect, and Maintain Temporary Marker (Reference Task 14.5).
- Observe Excavation Activities (Reference Task 32).

2.0 Knowledge Component

This task is performed to verify the location of pipeline.

An individual performing this task must have knowledge of:

- Pipeline maps, mapping software, construction drawings, and GPS.
- Methods used to locate pipe (e.g. potholing, daylighting, probing, electronic line locating, hand digging).
- Signal interference or unexpected changes in frequency and depth readings. Electronic line locator readings may be impacted by pipeline depth, other underground utilities, adjacent structures, CP systems, type of soil, soil density, and overhead power lines.
- One-Call notification system and One-Call laws (may vary from state to state).

Terms applicable to this task:

depth of cover

The vertical distance from the top of pipe to the soil or water sediment interface.

electronic line locator

A device designed and used to locate pipelines below the earth's surface.

One-Call notification system

A communication system in which a call center receives notices from excavators of intended excavation activities and transmits the notices to operators of underground pipeline facilities and other underground facilities that participate in the system.

One-Call ticket

Documentation of the One-Call request. It includes assigned number identification for tracking the ticket and all associated documentation.

NOTE One-Call laws vary from state to state.

potholing or daylighting

The practice of exposing a pipeline to verify its location.

probing

The practice of contacting the pipeline with a bar or rod to verify the presence or absence of a pipeline or underground structure. When probing, care must be taken to avoid damaging pipeline coating.

Abnormal operating conditions (AOC) associated with the performance of this task:

AOC Recognition	AOC Reaction
Discovery of unintentionally exposed pipeline.	Notify appropriate pipeline personnel.
Pipeline location does not match pipeline maps.	Notify map owner and follow Operator procedure to update map.
Line locating equipment is inoperable or not properly calibrated.	Stop task activities, determine cause of malfunction and required calibration settings, and remediate per manufacturer's recommendations or specifications.
The right-of-way is inaccessible.	Make appropriate notifications according to Operator procedures.

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
1	Obtain/verify necessary permits, waivers, access requirements, a One-Call Ticket, or a line-locating request, as applicable.	Refer to Operator, state, and local requirements.
2	Determine the approximate location of the pipeline section, by using the most current drawings, maps, or GPS.	Drawings and pipeline maps are used to assist in locating the pipeline.
3	Check to ensure locating equipment is in proper working order in accordance with the manufacturer's recommendations.	Equipment needs to be operating properly for an accurate locate. Ensure the locating equipment is properly charged and calibrated according to manufacturer's specifications. If equipment is not working properly, stop task activities, determine cause of malfunction, and remediate per manufacturer's recommendations.
4	Conduct a visual assessment to determine site conditions that could affect task performance.	Some rights-of-way or site conditions may impede task completion. Examples may include physical obstructions, traffic, soil conditions, hazards, standing water, trenches, etc.
5	Use appropriate line locating equipment and methods to determine the location of the line.	Determine pipeline location by appropriate locating method according to Operator procedures.
6	Use appropriate equipment and methods to measure the depth of cover, if required, and document the depth.	Depth of cover can be determined with a probe rod or other equipment. Operator procedures or job specifications will dictate whether depth of cover needs to be established.

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Task 14.2—Install, Inspect, and Maintain Permanent Marker

1.0 Task Description

This task consists of installing, inspecting, and maintaining permanent pipeline markers in required locations.

The task begins with verification that the line has been located. The task ends when the pipeline route is accurately marked with permanent marker(s).

The performance of this covered task may require the performance of other covered tasks such as:

- Locate Line (Reference Task 14.1).

2.0 Knowledge Component

An individual performing this task must have knowledge of the following.

- Permanent markers visually communicate the approximate location of the pipeline. Line markers must meet the specifications outlined in applicable regulations.
- Location requirements for marker installation.
- Information and design requirements for markers.
- One-Call notification system and One-Call laws (may vary from state to state).

Terms applicable to this task:

potholing or daylighting

The practice of exposing a pipeline to verify its location.

probing

The practice of contacting the pipeline with a bar or rod to verify the presence or absence of a pipeline or underground structure. When probing, care must be taken to avoid damaging pipeline coating.

Abnormal operating conditions (AOC) associated with the performance of this task:

AOC Recognition	AOC Reaction
Discovery of unintentionally exposed pipeline.	Notify appropriate pipeline personnel.

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
1	Verify that the line has been located.	Ensures accurate placement of the marker.
2	Determine proper marker location(s), visibility, and orientation.	Markers warn the public and helps prevent damage to the pipeline.
3	Verify the marker is in good condition, contains the correct information, and is appropriate for the location and product.	Replace the marker if it is missing, damaged, or the incorrect information is shown. Markers need to have the correct product identification and information as required by regulation.
4	Securely install the mounting apparatus and marker, per manufacturer's specifications.	Ensure markers have a good solid foundation. Caution—When applicable, probe or pothole prior to installing a post to help ensure that the pipeline is not damaged.

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5	Confirm proper visibility, orientation, and installation of the permanent marker.	Ensures information on marker is visible, and the marker is installed in accordance with regulatory requirements.
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Task 14.5—Install, Inspect, and Maintain Temporary Marker

1.0 Task Description

This task consists of installing, inspecting, and maintaining temporary pipeline markers.

The task begins when a One-Call ticket or line-locating request is received. The task ends when the line is accurately marked and appropriate documentation or notifications are complete.

The performance of this covered task may require the performance of other covered tasks such as:

- Locate Line (Reference Task 14.1).

This task does not include but may lead to the performance of other covered tasks such as:

- Observe Excavation Activities (Reference Task 32).

2.0 Knowledge Component

Operators must provide temporary marking of buried pipelines in the area of excavation activity, as far as practical, before the activity begins. Temporary markers visually communicate the location of the pipeline on the surface in the right-of-way.

An individual performing this task must have knowledge of:

- Types of temporary markers.
- Temporary marker locations.
- ANSI uniform color code.
- One-Call notification system and One-Call laws (may vary from state to state).

Terms applicable to this task:

One-Call notification system

A communication system in which a call center receives notices from excavators of intended excavation activities and transmits the notices to operators of underground pipeline facilities and other underground facilities that participate in the system.

One-Call ticket

Documentation of the One-Call request. It includes assigned number identification for tracking the ticket and all associated documentation.

NOTE One-Call laws vary from state to state.

white lining

Designating the ground of an area to be excavated using white paint, white flags, white stakes, or any combination of these.

NOTE State laws and best practices may vary from state to state.

Abnormal operating conditions (AOC) associated with the performance of this task:

AOC Recognition	AOC Reaction
Discovery of unintentionally exposed pipeline.	Make appropriate notifications according to Operator procedures.
Misplaced permanent line marker	Make appropriate notifications according to Operator procedures.

3.0 Skill Component

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To demonstrate proficiency of this task, an individual must perform the following steps.

Step	Action	Explanation
1	Receive a One-Call ticket, or other line-locating request.	The individual must be able to use the One-Call ticket, or other line-locating request, to determine at a minimum: -the date the locate must be completed by, -the area to be marked.
2	Verify that the line has been located within the proposed excavation area.	Ensures accurate placement of the marker. If there is difficulty determining the proposed excavation area, ensure the One-Call center or excavator is contacted for clarification of the proposed excavation area.
3	Adequately mark the pipeline so that its location is accurately known.	Temporary marker(s) should be located directly over the pipeline. When a temporary marker cannot be located directly over the pipeline, an offset marker shall be installed according to operator and state requirements. As needed, inspect the accuracy of temporary marker placement and replace them as needed to maintain visual indication of pipeline location.
4	Complete appropriate notifications and documentation according to One-Call or Operator procedures.	Making notifications allows the next required activity to begin.

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Task 15.1—Perform Visual Inspection of Surface Conditions of Right-of-way

1.0 Task Description

This task consists of performing an inspection of surface conditions in, or adjacent to, the pipeline right-of-way. Methods of inspection may include walking, driving, aerial, or other appropriate means of traversing the right-of-way.

The task begins with accurately identifying the right-of-way to be inspected. The task ends with completion of the required documentation.

2.0 Knowledge Component

The purpose of the inspection is to identify and observe for indications of leaks, construction activity, and other factors affecting safety and operation.

An individual performing this task must have knowledge of:

- Immediate threat to persons, property, or the environment.
- Indications of a release.
 - Vapor cloud or frost ball on or near a right-of-way.
 - Sheen on or bubbles in the water on a right-of-way.
 - Dead vegetation or wet spot.
 - Odor of hazardous gas or liquids.
 - Audible cues (hissing, roaring, etc.).
 - Fire in the right-of-way
- Exposure that could immediately damage or affect the stability of a pipeline.
- Fire or explosion on or near the right-of-way.

Conditions that could impact the safety or integrity of the pipeline include:

- construction or excavation equipment or other signs of construction activity on or near a right-of-way;
- soil movement such as a landslide, mudslide, sinkhole, subsidence, or settling;
- sagging aboveground pipe at a span;
- damaged, leaning, or failing pipe support system;
- unusual materials, equipment, and foreign objects on or near the right-of-way;
- damage to pipeline facilities or suspicious activity that might indicate vandalism or unlawful actions.

Conditions that could impact the pipeline, resulting in a response that would include reporting or maintenance:

- vegetation overgrowth or excessive canopy that may obstruct view of right-of-way;
- damaged or missing line marker(s);
- damage to coatings or insulation on aboveground pipe or components.

Abnormal operating conditions (AOC) associated with the performance of this task:

AOC Recognition	AOC Reaction
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3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
1	Accurately identify the right-of-way to be inspected from alignment sheets, GPS, and pipeline maps.	Ensures the correct line is being inspected and dictates the mode of inspection (aerial patrol, walking the right-of-way, and vehicle patrol).
2	Perform the visual inspection/patrol of the right-of-way.	Make proper notification of any abnormal conditions according to Operator procedures.
3	Report right-of-way inspection results.	Follow Operator procedures.
4	Complete required documentation.	Follow Operator procedures.

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Task 16.1—Inspect Navigable Waterway Crossing

1.0 Task Description

This task includes the locating and inspection of the below surface pipeline crossings of navigable waterways. Activities would include determining the pipeline depth of cover within the navigable waterway and denoting any other conditions that may result in damage to the pipeline. The activities of this task apply only to the area of the pipeline that is below the water surface.

This task begins after locating the pipeline at water edge of each bank or shoreline and ends when the inspection of conditions and determination of depth of cover of the pipeline that is within the navigable waterway is documented.

The performance of this covered task may require the performance of other covered tasks such as:

- Locate Line (Reference Task 14.1).

This task does not include but may lead to the performance of other covered tasks such as:

- Perform Visual Inspection of Surface Conditions of Right-of-way (Reference Task 15.1).

2.0 Knowledge Component

The purpose of this task is to determine pipeline depth of cover, potential pipe exposures, and any other conditions that may result in damage to the pipe within the navigable waterway.

An individual performing this task must have knowledge of:

- Specialized locating equipment to determine depth of cover.

Conditions that could impact the safety or integrity of the pipeline include:

- vessel anchored over the pipeline,
- visible sheen or other indications of product release,
- waterway bank erosion,
- debris lodged against pipeline,
- pipe movement or suspended pipeline.

Terms applicable to this task:

depth of cover

The vertical distance from the top of pipe to the soil or water sediment interface.

navigable waterway

A waterway where substantial likelihood of commercial navigation exists.

Abnormal operating conditions (AOC) associated with the performance of this task:

AOC Recognition	AOC Response
<i>This section intentionally left blank.</i>	<i>This section intentionally left blank.</i>

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
1	Locate pipeline adjacent to navigable waterway crossing.	Establishes a reference point.

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2	Determine the depth of the submerged pipeline by using a probe or specialized electronic equipment.	Determines the amount of cover and verifies the condition of the crossing.
3	Inspect the conditions of the underwater right-of-way.	Make proper notification of any abnormal conditions according to Operator procedures.
4	Complete required documentation.	Complete appropriate documentation according to Operator's procedures.

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Task 14.1—Locate Line

1.0 Task Description

This task includes establishing the location of a pipeline and may also include determining the depth of the cover. This task requires the use of maps, mapping software, drawings, and locating equipment. A variety of line locating tools and methods can be used to locate a line; this task is not specific to any one tool or method.

This task begins when the need to locate a line has been identified. This task ends when the correct line segment has been located~~line has been located and, if required, depth of cover has been determined and documented~~.~~The performance of this covered task may require the performance of other covered tasks such as the following.~~

~~Observe Excavation Activities (reference Task 32).~~

This task does not include but may lead to the performance of other covered tasks such as the following:

- ~~— Examine for Mechanical Damage on Buried or Submerged Pipe (reference Task 5.1).~~
- ~~— Examine for External Corrosion on Buried or Submerged Pipe (reference Task 5.2).~~
- ~~— Inspect the Condition of External Coating on Buried or Submerged Pipe (reference Task 5.3).~~
- Install, Inspect, and Maintain Permanent Marker (reference Reference Task 14.2).
- Install, Inspect, and Maintain Temporary Marker (reference Reference Task 14.5).
- ~~— Observe Excavation Activities (reference Task 32).~~

2.0 Knowledge Component

This task is performed to verify the location of pipeline.

An individual performing this task must have knowledge of the following:

- Pipeline maps, mapping software, construction drawings, ~~blueprints~~, and GPS.
- Methods used to locate pipe (e.g. potholing, daylighting, probing, electronic line locating, hand digging).
- Signal interference or unexpected changes in frequency and ~~or~~ depth readings. Electronic line locator readings may be impacted by pipeline depth, other underground utilities, adjacent structures, CP systems, type of soil, soil density, and overhead power lines.
- One-Call notification system and One-Call laws (may vary from state to state).

Terms applicable to this task are as follows:

depth of cover

The vertical distance from the top of pipe to the soil or water sediment interface.

electronic line locator

A device designed and used to locate metal pipelines ~~and/or plastic pipelines installed with a metal (tracer) wire~~, below the earth's surface. ~~Electronic line locator readings may be impacted by pipeline depth, other underground utilities, adjacent structures, CP systems, type of soil, soil density, and overhead power lines.~~

~~When using handheld electronic line locators, interference or unexpected changes in frequency and/or depth readings may be encountered.~~

One-Call notification system

A communication system in which a call center receives notices from excavators of intended excavation activities and transmits the notices to operators of underground pipeline facilities and other underground facilities that participate in the system.

One-Call ticket

Documentation of the One-Call request. It includes assigned number identification for tracking the ticket and all associated documentation.

NOTE One-Call laws vary from state to state.

potholing or daylighting

The practice of ~~uncovering-exposing~~ a pipeline to verify its location.

probing

The practice of contacting the pipeline with a bar or rod to verify the presence or absence of a pipeline or underground structure. When probing, care must be taken to avoid damaging pipeline coating.

Abnormal operating conditions (AOC)AOCs associated with the performance of this task ~~include the following-~~:

AOC Recognition	AOC Reaction
Discovery of unintentionally exposed pipeline.	Notify appropriate pipeline personnel.
Pipeline location does not match pipeline maps.	Notify map owner and for follow company Operator procedure to update map.
<u>Line locating equipment is inoperable or not properly calibrated.</u>	<u>Stop task activities, determine cause of malfunction and required calibration settings, and remediate per manufacturer's recommendations or specifications.</u>
<u>The right-of-way is inaccessible.</u>	<u>Make appropriate notifications according to Operator procedures.</u>

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps-:

Step	Action	Explanation
1	Obtain/verify necessary permits, waivers, access requirements, and/or One-Call Ticket, <u>or a line-locating request</u> , as applicable.	Refer to operator Operator, state, and local requirements.
2	Determine the approximate location of the pipeline section, by using the most current drawings, maps, and or GPS.	Drawings and or pipeline maps are used to assist in locating the pipeline.
3	Check to ensure locating equipment is in proper working order in accordance with the manufacturer's recommendations.	Equipment needs to be operating properly for an accurate locate. Ensure the locating equipment is properly charged and calibrated <u>according to manufacturer's specifications</u> . If equipment is not working properly, stop task activities, determine cause of malfunction, and remediate per manufacturer's recommendations.
4	Conduct a visual assessment to determine site conditions that could affect task performance.	Some rights-of-way or site conditions may impede task completion. Examples may include physical obstructions, traffic, soil conditions, hazards, standing water, trenches, etc.

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5	Use appropriate line locating equipment and or methods to determine the location of the line.	Determine pipeline location by appropriate locating method according to operator <u>Operator</u> procedures. NOTE Exposed pipe must be inspected by following Tasks 5.1, 5.2, or 5.3. Take appropriate action per operator's procedures.
<u>6</u>	<u>Use appropriate equipment and methods to measure the depth of cover, if required, and document the depth.</u>	<u>Depth of cover can be determined with a probe rod or other equipment. Operator procedures or job specifications will dictate whether depth of cover needs to be established.</u>

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Task 14.2—Install, Inspect, and Maintain Permanent Marker

1.0 Task Description

This task consists of installing, inspecting, and maintaining permanent pipeline markers in required locations.

The task begins with verification that the line has been located. The task ends when the pipeline route is accurately marked with permanent marker(s).

The performance of this covered task may require the performance of other covered tasks such as ~~the following:~~

- Locate Line (~~reference~~ [Reference](#) Task 14.1).

2.0 Knowledge Component

An individual performing this task must have knowledge of the following.

- Permanent markers visually communicate the approximate location of the pipeline. Line markers must meet the specifications outlined in applicable regulations.
- Location requirements for marker installation.
- Information and design requirements for markers.
- ~~One-Call~~ notification system and One-Call laws (may vary from state to state).

[Terms applicable to this task:](#)

[potholing or daylighting](#)

[The practice of exposing a pipeline to verify its location.](#)

[probing](#)

[The practice of contacting the pipeline with a bar or rod to verify the presence or absence of a pipeline or underground structure. When probing, care must be taken to avoid damaging pipeline coating.](#)

[Abnormal operating conditions \(AOC\)s](#) associated with the performance of this task ~~include the following:~~

AOC Recognition	AOC Reaction
Discovery of unintentionally exposed pipeline.	Notify appropriate pipeline personnel.

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
1	Verify that the line has been located.	Ensures accurate placement of the marker.
2	Determine proper marker location(s), visibility, and orientation.	Markers warn the public and helps prevent damage to the pipeline.
3	Verify the marker is in good condition, contains the correct information, and is appropriate marker for the location and product product .	Replace the marker if it is missing, damaged, or the incorrect information is shown. Confirm information on the marker is correct and in good condition. Markers need to have the correct product identification and information as required by the regulation.

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4	Securely install the mounting apparatus and marker, per manufacturer's specifications.	Ensure markers have a good solid foundation. Caution—When applicable, probe or pothole prior to installing a post to help ensure that the pipeline is not damaged.
5	Inspect Confirm proper visibility, orientation, and installation of the permanent marker. the signs for correct information, visibility, and orientation. Replace the sign if a marker is missing, damaged, or the incorrect information is shown.	Ensures information on marker is in good condition, visible, legible, and the marker is installed in accordance with regulatory requirements.

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Task 14.5—Install, Inspect, and Maintain Temporary Marker

1.0 Task Description

~~The task begins with a location request, which may include a One-Call.~~ This task consists of installing, inspecting, and maintaining temporary pipeline markers.

The task begins when a One-Call ticket [or line-locating request](#) is received. The task ends when the line is accurately marked [and appropriate documentation or notifications are complete](#).

The performance of this covered task may require the performance of other covered tasks such as ~~the following~~:

— [Locate Line](#) (~~reference~~ [Reference](#) Task 14.1).

[This task does not include but may lead to the performance of other covered tasks such as:](#)

— [Observe Excavation Activities](#) ([Reference Task 32](#)).

2.0 Knowledge Component

Operators must provide temporary marking of buried pipelines in the area of excavation activity [before](#), as far as practical, [before](#) the activity begins. Temporary markers visually communicate the location of the pipeline on the surface [of in](#) the right-of-way.

An individual performing this task must have knowledge of ~~the following~~:

- Types of temporary markers.
- Temporary marker locations.
- ANSI uniform color code.
- One-Call notification system and One-Call laws (may vary from state to state).

Terms applicable to this task ~~are as follows~~:

[One-Call notification system](#)

[A communication system in which a call center receives notices from excavators of intended excavation activities and transmits the notices to operators of underground pipeline facilities and other underground facilities that participate in the system.](#)

[One-Call](#)

~~A system through which anyone can notify owners/operators of lines or facilities of proposed excavation so that the owners/operators can mark the lines and undertake other damage prevention measures.~~

One-Call ticket

Documentation of the One-Call request. It includes assigned number identification for tracking the ticket and all associated documentation.

NOTE One-Call laws vary from state to state.

white lining

~~Under certain state laws and/or best practices recommended by organizations such as the Common Ground Alliance, excavators d~~[esignate in](#)g the ground of an area to be excavated using white paint, white flags, white stakes, or any combination of these.

NOTE [State laws and best practices may vary from state to state.](#)

[Abnormal operating conditions](#) (AOC)s associated with the performance of this task ~~include the following~~:

AOC Recognition	AOC Reaction
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Discovery of unintentionally exposed pipeline.	Make appropriate notifications according to Operator procedures. Notify appropriate pipeline personnel.
Misplaced permanent line marker	Make appropriate notifications according to Operator procedures.

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps.

Step	Action	Explanation
1	Receive a One-Call ticket, or other line-locating request and describe the content and requirements of the ticket.	The individual must be able to use the One-Call ticket, or other line-locating request , to determine at a minimum: -the date the locate must be completed by, -the area to be marked.
2	Verify that the line has been located within the proposed excavation area.	Ensures accurate placement of the marker. If there is difficulty determining the proposed excavation area, ensure the One-Call center or excavator is contacted for clarification of the proposed excavation area.
3	Adequately mark the pipeline so that its location is accurately known. Temporary marker(s) should be located directly over the pipeline.	Temporary marker(s) should be located directly over the pipeline. When a temporary marker cannot be located directly over the pipeline, an offset marker shall be installed according to operator and state requirements. As needed, inspect the accuracy of temporary marker placement and replace them as needed to maintain visual indication of pipeline location.
4	Complete appropriate notifications and documentation according to One-Call or Operator procedures.	Making notifications allows the next required activity to begin.

Task 15.1—Perform Visual Inspection of Surface Conditions of Right-of-way

1.0 Task Description

This task consists of performing an inspection of surface conditions ~~on~~in, or adjacent to, the pipeline right-of-way. Methods of inspection may include walking, driving, ~~flyin~~gaerial, or other appropriate means of traversing the right-of-way.

The task begins with accurately identifying the right-of-way to be inspected. The task ends with completion of the required documentation.

2.0 Knowledge Component

The purpose of the inspection is to identify and observe for indications of leaks, construction activity, and other factors affecting safety and operation.

An individual performing this task must have knowledge of ~~the following~~:

- Immediate threat to persons, property, or the environment.
- Indications of a release.
 - Vapor cloud or frost ball on or near a right-of-way.
 - Sheen on or bubbles in the water on a right-of-way.
 - Dead vegetation or wet spot.
 - Odor of hazardous gas or liquids.
 - Audible cues (hissing, roaring, etc.).
 - Fire in the right-of-way
- Exposure that could immediately damage or affect the stability of a pipeline.
- Fire or explosion on or near the right-of-way.

Conditions that could impact the safety or integrity of the pipeline include ~~the following~~:

- construction or excavation equipment or other signs of construction activity on or near a right-of-way;
- soil movement such as a landslide, mudslide, sinkhole, subsidence, or settling;
- sagging aboveground pipe at a span;
- damaged, leaning, or failing pipe support system;
- unusual materials, equipment, and ~~or~~ foreign objects on or near the right-of-way;
- damage to pipeline facilities or suspicious activity that might indicate vandalism or terrorist unlawful actions.

Conditions that could impact the pipeline, resulting in a ~~typical~~ response that would include ~~reporting~~ or maintenance:

- vegetation overgrowth or excessive canopy that may obstruct view of right-of-way;
- damaged or missing line marker(s);
- damage to coatings or insulation on aboveground pipe or components.

Abnormal operating conditions (AOC)s associated with the performance of this task ~~include the following~~:

AOC Recognition	AOC Reaction
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3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
1	Accurately identify the right-of-way to be inspected from alignment sheets, GPS , and/or pipeline maps.	Ensures the correct line is being inspected and dictates the mode of inspection (aerial patrol, walking the right-of-way, and vehicle patrol).
2	Perform the visual inspection/patrol of the right-of-way.	Make proper notification of any abnormal conditions according to Operator procedures .
3	Report right-of-way inspection results.	Follow company Operator procedures.
4	Complete required documentation.	Follow company Operator procedures.

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Task 16.1—Inspect Navigable Waterway Crossing

1.0 Task Description

This task includes the locating and inspection of the below surface pipeline crossings of navigable waterways. Activities would include determining the pipeline depth of cover within the navigable waterway and/or denoting any other conditions that may result in damages to the pipeline. The activities of this task apply only to the area of the pipeline that is below the water surface.

This task begins after locating the pipeline at water edge of each bank or shoreline and ends when the inspection of conditions and determination of depth of cover of the pipeline that is within the navigable waterway is documented.

The performance of this covered task may require the performance of other covered tasks such as ~~the following:~~

- Locate Line (~~reference-Reference~~ Task 14.1).

This task does not include but may lead to the performance of other covered tasks such as ~~the following:~~

- Perform Visual Inspection of Surface Conditions of Right-of-way (~~reference-Reference~~ Task 15.1).

2.0 Knowledge Component

The purpose of this task is to determine pipeline depth of cover, potential pipe exposures, and any other conditions that may result in damage to the pipe within the navigable waterway.

An individual performing this task must have knowledge of ~~the following:~~

- Specialized locating equipment to determine depth of cover.

Conditions that could impact the safety or integrity of the pipeline include ~~the following:~~

- vessel anchored over the pipeline,
- visible sheen or other indications of product release,
- waterway bank erosion,
- debris lodged against pipeline,
- pipe movement or suspended pipeline.

Terms applicable to this task: ~~are as follows.~~

depth of cover

The vertical distance from the top of pipe to the soil or water sediment interface.

navigable waterway

A waterway where substantial likelihood of commercial navigation exists.

~~Abnormal operating conditions (AOC)s~~ associated with the performance of this task ~~include the following:~~

AOC Recognition	AOC Response
<i>This section intentionally left blank.</i>	<i>This section intentionally left blank.</i>

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
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1	Locate pipeline adjacent to navigable waterway crossing.	Establishes a reference point.
2	Determine the depth of the submerged pipeline by using a probe or specialized electronic equipment.	Determines the amount of cover and verifies the condition of the crossing.
<u>3</u>	<u>Inspect the conditions of the underwater right-of-way.</u>	<u>Make proper notification of any abnormal conditions according to Operator procedures.</u>
<u>34</u>	<u>Complete required Documentation findings per operator's procedures.</u>	<u>Location of exposed or unsupported pipe. Depth of cover. Complete appropriate documentation according to Operator's procedures.</u>

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