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MEMORANDUM OF UNDERSTANDING
BETWEEN TENNESSEE GAS PIPELINE COMPANY
AND NEW HAMPSHIRE HISTORIC PRESERVATION OFFICER FOR EXISTING NATURAL
GAS PIPELINES

WHEREAS, the New Hampshire State Historic Preservation Officer (SHPO) has determined that some types of projects submitted for review by Tennessee Gas Pipeline Company in compliance with certain procedural aspects of federal laws and regulation do not promote the identification, evaluation, or preservation of historical properties or archaeological sites listed on, eligible or potentially eligible for listing on, the National Register of Historic Places;

WHEREAS, Tennessee Gas Pipeline Company agree to consult with the New Hampshire Historic Preservation Officer under provisions of the National Historic Preservation Act of 1966, as amended [36 CFR 800];

WHEREAS, it is in the best interest of the SHPO and Tennessee Gas Pipeline Company to reduce investments of time and resources in the review process by eliminating unproductive project reviews;

NOW, THEREFORE, Tennessee Gas Pipeline Company and the New Hampshire Historic Preservation Officer agree that maintenance and modifications of existing pipelines shall be implemented in accordance with the following stipulations in order to acknowledge the potential effect of such undertakings on National Register of Historic Places (NRHP) quality properties:

I. DEFINITIONS:

"Above-ground facilities" include meter stations and valve sites, including all of the fenced and maintained property and the structures located therein.

"Historic Properties" include those cultural resources that are listed in, eligible for listing or potentially eligible for listing in the National Register of Historic Places.

"Previously disturbed" is defined as prior impacts to an area resulting in mixing or inversion of soil profiles. The location of an existing trench will be established by reviewing available historic documentation (including cultural resources reports), conducting a landowner interview, means of remote sensing or conducting field investigations of disturbance.

- In regards to pipeline right-of-way (ROW), this disturbance includes prior impacts within the width of the excavated trench and strip of removed topsoil together with other portions of the ROW which have been previously modified with the removal of topsoil and/or substantial recontouring of the surface displacing the topsoil.
- In regards to agricultural areas, the term "previously disturbed" only applies to impacts or mixing of soil within the plow zone.

"Undertaking", as defined in 36 CFR 800.3(a) and 36 CFR 800.16(y), encompasses the area (Area of Potential Effects [36 CFR 800.16(d)] and work necessary for the completion of the project.

II. ACTIVITIES COVERED UNDER THIS AGREEMENT

The following five activities are included under the terms of this categorical exclusion and may be undertaken without prior review by SHPO:

1. Activities conducted above ground and/or require no ground disturbance within areas of Tennessee Gas Pipeline Company (TGP) existing easements or at established facilities.
 - a. Compressor Station- Modification or installation of equipment within existing buildings as well as fenced and maintained yards.
 - b. Above-ground Facilities - Installation of equipment or appurtenances, including conversion or modification of existing valves, monitoring, measuring, communications, cleaning or regulatory devices.
 - c. In-place Abandonments - Discontinuation of service and/or retirement of a pipeline segment or facility which will not require ground disturbing activities (i.e. pipe and/or appurtenances will be left in-place).

- d. Changes in service points or storage capacity.
 - e. Minor above-ground pipe replacement – Modifications within an existing Compressor Station or facility for valves, monitoring, cleaning, regulating or measurement.
2. Activities requiring ground disturbance within TGP permanent ROW.
- a. Taps – Installation of pipe connections which are installed on an existing pipeline.
 - b. Above-ground facilities – Installation of equipment or appurtenances, including conversion or modification of existing valves, monitoring, measuring, communications, cleaning or regulatory devices.
 - c. Inspections – Regular and routine maintenance and investigation of the condition of pipeline and subsurface appurtenances at specific locations requiring excavation to expose a short length of existing pipeline and assess the integrity of the pipeline.
 - d. Pipe Replacements – Replacement of existing lengths of pipeline, provided that the location of the existing pipeline is determined by an established means of remote sensing. Replacement is defined as one of the following: the removal of an existing pipeline and construction of a new pipeline within the same trench; or, abandoning the extant line and installing a replacement line at an off-set (adjacent to the abandoned line) within the permanent ROW. However, replacement does not include construction of parallel lines for system expansion.
 - e. Pipe Rearrangements, Crossovers and Interconnects – Minor modifications of existing lengths of pipeline, provided that the location of the existing pipeline is determined by an established means of remote sensing. Excavation activities may require the removal of an existing pipeline and/or installation of new pipe.
 - f. Abandonments – Discontinuation of service and/or retirement of a pipeline segment or facility which requires ground disturbing activities to remove piping or modify appurtenances, provided that the location of the existing pipeline is determined by an established means of remote sensing.
 - g. Pipe Casing Modifications – At locations where existing pipelines cross roads or highways, modification, addition to or replacement of an existing casing within the road. (Pipelines may be contained within a sleeve, also called a casing, at road crossings.)
 - h. Pipeline Lowerings – Relocating an existing line to a lower depth to establish greater cover over the line while maintaining the same horizontal position of the line within the permanent ROW.
 - i. Appurtenance Modifications – Regular service and maintenance within existing Compressor Stations and/or above-ground facilities provided that the new work does not extend deeper than the previously disturbed portion of the facility.
3. Activities that involve ground disturbance in areas previously disturbed by other entities (i.e. modified by clearing or grading activities due to residential, industrial, pipeline construction or commercial development). These activities would allow TGP to use access roads, workspace, contractor/staging yards or construction corridors within areas adjacent to their permanent ROW. Commercial or industrial areas are areas of obvious development (i.e. concrete surfaces, graded and graveled surfaces) and/or areas with a documented history of previous commercial or industrial use(s). In cultivated agricultural land, activities within the plow zone would be covered by this category; however, impacts outside the plow zone in cultivated land would not be included in this category.
- a. Taps – Installation of pipe connections which are installed on an existing pipeline.

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- b. Above-ground Facilities – Installation of equipment or appurtenances, including conversion or modification of existing valves, monitoring, measuring, communications, cleaning or regulatory devices.
 - c. Pipe Replacement – Replacement of existing lengths of pipe, provided that the location of the existing pipeline is determined by an established means of remote sensing. Replacement is defined as the removal of an existing pipeline and construction of a new pipeline within the same trench. Replacement does not include construction of parallel lines for system expansion.
 - d. Pipe Rearrangements, Crossovers and Interconnects – Minor modifications of existing lengths of pipeline, provided that the location of the existing pipeline is determined by an established means of remote sensing. Excavation activities may require the removal of an existing pipeline and/or installation of new pipe within the existing permanent ROW.
 - e. Extra workspaces and contractor yards – Areas used for staging construction activities, including parking and pipe and equipment storage, including use of areas subjected to similar past use as staging areas or storage yards.
4. Activities within areas that have been subjected to archaeological survey, meeting state and federal guidelines, and do not contain historic properties, including corridors previously surveyed by TGP, other utility companies, or New Hampshire Department of Transportation:
 - a. Compressor Stations and Above-ground Facilities – Modification, replacement or addition involving new construction within existing Compressor Station property and/or above-ground facilities, including valves and monitoring, measuring, communications, cleaning or regulating devices.
 - b. Pipe Replacement – Replacement of existing lengths of pipe, provided that the location of the existing pipeline is determined by an established means of remote sensing. Replacement is defined as the removal of an existing pipeline and construction of a new pipeline within the same trench. Replacement does not include construction of parallel lines for system expansion.
 - c. Pipe Rearrangements, Crossovers and Interconnects – Minor modifications of existing lengths of pipeline up to 1500 feet, provided that the location of the existing pipeline is determined by an established means of remote sensing. Excavation activities may require the removal of an existing pipeline and installation of new pipe within the existing permanent ROW or new ROW.
 - d. Extra workspaces – Areas used for staging construction activities, including parking and pipe and equipment storage.
 5. Activities requiring ground disturbance but have not been surveyed given the small scale of the activities. However, a literature search must be completed to verify that cultural resources potentially eligible, eligible for, or listed on the NRHP do not occur in the area of potential effect of a project:
 - a. New Points of Service (POS) – Installation of taps, meters and pipe for POS to pipeline customers including excavation of the trench for pipe 12" diameter or smaller, provided that no more than 150 feet of trench is required and provided that no more than ten (10) installations are to be made for a single undertaking.
 - b. Points of Service Modifications – Replacement or modification to an existing POS, provided that no more than 150 feet of trench excavation is required.
 - c. Minor Pipe Additions – Construction of up to 150 feet of new pipeline.
 - d. Access roads – Use of existing roads to the pipeline ROW, staging areas or storage yards. Access roads will not be widened, although occasionally they may need to be maintained (grading) or improved by adding gravel or reinforced bridges.

- e. Extra workspaces or contractor yards – Existing paved or graveled areas for staging construction activities, including pipe storage, parking, and equipment storage or areas subjected to similar past use as staging areas or storage yards.

All other activities not exempted from SHPO review under this categorical exclusion agreement will be coordinated with SHPO in accordance with provisions at 36 CFR 800.

III. UNANTICIPATED DISCOVERIES

In the event of the discovery of a property during implementation of this agreement (including any finding which may be a property), TGP shall report the finding to SHPO as soon as feasible, and (under provisions at 36 CFR 800.13) agrees to treat the newly discovered property or finding as eligible for inclusion in the National Register of Historic Places pending the outcome of the completion of Section 106 review with SHPO. In most cases, it is advisable to cease construction in the area of the new or additional finding until consultation with SHPO has been established.

IV. TERMINATION OF THIS AGREEMENT

This agreement shall be in effect for five years from the date of execution. At the written request of either party, this agreement may be reviewed for possible modification at any time.

V. AGREEMENT EXECUTION

Execution of this agreement evidences that Tennessee Gas Pipeline Company agree to follow the review procedure and that the New Hampshire Historic Preservation Officer finds the procedure complies with Section 106 of the National Historic Preservation Act (16 U.S.C. 470) and its implementing regulations, "Protection of Historic and Cultural Properties" [36 CFR 800]. It is our opinion as a consulting party that the activities categorized in this agreement will have no effect on properties included in or eligible for inclusion in the National Register of Historic Places.

New Hampshire Historic Preservation Officer:

Elizabeth H. Murray 12/1/08
Signature Date

Environmental Scientist for El Paso Corporation (parent company for TGP):

Alicia Bishop 12/5/08
Signature Date