



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Ave., SE  
Washington, DC 20590

**MAY 20 2010**

Mr. Ronald C. Kraemer  
President  
Empire Pipeline, Inc.  
6363 Main Street  
Williamsville, NY 14221-5887

**Docket No. PHMSA-2008-0213**

Dear Mr. Kraemer:

On August 8, 2008, Empire Pipeline, Inc. (Empire) wrote to the Pipeline and Hazardous Materials Safety Administration (PHMSA), as operator of Empire State Pipeline, requesting a waiver of compliance from PHMSA's pipeline safety regulation 49 CFR § 192.611(a) for five (5) segments on the Empire State Pipeline 24-inch natural gas transmission pipeline system in Niagara, Genesee, and Monroe Counties, New York. The regulation requires confirmation or revision of the maximum allowable operating pressure (MAOP) of a pipeline segment where the class location has changed.

PHMSA is granting this special permit (enclosure), which allows Empire to continue to operate the five (5) segments of the Empire State Pipeline at their current MAOP of 1440 pounds per square inch (psig). This special permit provides relief from the specified Federal pipeline safety regulations for the Empire State Pipeline and requires Empire to comply with certain conditions and limitations designed to maintain pipeline safety.

PHMSA grants this special permit based on the findings set forth in the "Special Permit Analysis and Findings" document, which can be read in its entirety in Docket No. PHMSA-2008-0213 in the Federal Docket Management System (FDMS) located on the internet at [www.Regulations.gov](http://www.Regulations.gov).

My staff would be pleased to discuss this special permit or any other regulatory matter with you. John Gale, Director of Regulations (202-366-0434), may be contacted on regulatory matters and Alan Mayberry, Deputy Associate Administrator for Pipeline Safety (202-366-5124), may be contacted on technical matters specific to this special permit.

Sincerely,

Jeffrey D. Wiese  
Associate Administrator for Pipeline Safety

Enclosure (Special Permit)

**U.S. DEPARTMENT OF TRANSPORTATION**  
**PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**  
**SPECIAL PERMIT**

Docket Number: PHMSA – 2008-0213  
Pipeline Operator: Empire Pipeline, Inc<sup>1</sup>, (operator of Empire State Pipeline)  
Date Requested: August 8, 2008  
Code Section(s): 49 CFR § 192.611

**Grant of Special Permit:**

By this order, subject to the terms and conditions set forth below the Pipeline and Hazardous Materials Safety Administration (PHMSA) grants this special permit to Empire Pipeline, Inc (Empire), operator of the Empire State Pipeline, waiving compliance from 49 CFR § 192.611(a) for five (5) natural gas transmission pipeline segments in Niagara, Genesee, and Monroe Counties, New York as described below.

**Special Permit Segments and Inspection Area:**

Niagara, Genesee, Monroe, Ontario, Wayne, Cayuga, Onondaga, and Oswego Counties, New York  
PHMSA waives compliance from 49 CFR § 192.611(a) for five (5) natural gas transmission pipeline segments on the 24-inch Empire State Pipeline, where a change has occurred from a Class 1 Location to a Class 3 Location and a Class 2 Location to a Class 3<sup>2</sup> Location in Niagara, Genesee, and Monroe Counties, New York. The Federal pipeline safety regulations in 49 CFR § 192.611(a) require natural gas pipeline operators to confirm or revise the maximum allowable operating pressure (MAOP) of a pipeline segment after a change in class location.

This special permit allows Empire to continue to operate each of the five (5) *special permit segments* at its current maximum allowable operating pressure (MAOP) of 1440 pounds per square inch gauge (psig) for the 24-inch Empire State Pipeline.

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<sup>1</sup> Empire Pipeline, Inc is owned by National Fuel Gas Company.

<sup>2</sup> The Class 3 location *special permit segments* were originally a Class 1 location that was upgraded to Class 2 location in accordance with § 192.611 (a) hydrostatic test.

This special permit applies to the five (5) *special permit segments* defined as follows using the Empire State Pipeline survey stations (SS) and mile post (MP) references as follows:

- ***Special Permit Segment 1*** - 24-inch Empire State Pipeline mainline, approximately 730 feet in length, located in Genesee County, NY from Survey Station 3027 + 50 to Survey Station 3034 + 80; (MP 57.33 to MP 57.49)
- ***Special Permit Segment 2*** - 24-inch Empire State Pipeline mainline, approximately 1,715 feet in length, located in Monroe County, NY from Survey Station 4018 + 73 to Survey Station 4035 + 88; (MP 76.09 to MP 76.42)
- ***Special Permit Segment 3*** - 24-inch Empire State Pipeline mainline, approximately 1,650 feet in length, located in Monroe County, NY from Survey Station 4483 + 10 to Survey Station 4499 + 60; (MP 84.88 to MP 85.19)
- ***Special Permit Segment 4*** - 24-inch Empire State Pipeline mainline, approximately 2,675 feet in length, located in Niagara County, NY from Survey Station 1230 + 69 to Survey Station 1257 + 44; (MP 23.30 to MP 23.81)
- ***Special Permit Segment 5***, 24-inch Empire State Pipeline mainline, approximately 1,760 feet in length, located in Niagara County, NY from Survey Station 1330 + 50 to Survey Station 1348 + 10; (MP 25.19 to MP 25.54)

This special permit applies to the *special permit inspection area* defined as follows using the 24-inch Empire State Pipeline mainline mile post stationing as a reference.

***Special permit inspection area*** – means the area that extends 220 yards on each side of the 24-inch pipeline centerline along the entire length of the Empire State Pipeline from:

- Mile Post 0 (New York/Canada border) to Mile Post 157 (Phoenix, New York) totaling about 157 miles in length.

The *special permit inspection area* is located in Niagara, Genesee, Monroe, Ontario, Wayne, Cayuga, Onondaga, and Oswego Counties, NY. The *special permit inspection area* begins at Mile Post 0 located at the start of the Empire State Pipeline at the Canada/U.S. international border and the Chippawa Channel of the Niagara River and ends at Mile Post 157 at the end of the Empire State Pipeline located in Oswego County, New York. The total length of the *special permit inspection area* is approximately 157 miles.

The Empire State Pipeline *special permit inspection areas* include the following sections:

- Western Section - from Mile Post 0 in Niagara County, New York to Mile Post 90.8 in Ontario

County, New York and the pipeline has an MAOP of 1440 psig; and

- Eastern Section – from Mile Post 90.8 in Ontario County, New York to Mile Post 157 in Oswego County, New York and the pipeline has an MAOP of 1000 psig.

PHMSA grants this special permit based on the findings set forth in the “*Special Permit Analysis and Findings*” document, which can be read in its entirety in Docket No. PHMSA-2008–0213 in the Federal Docket Management System (FDMS) located on the internet at [www.Regulations.gov](http://www.Regulations.gov).

### **Conditions:**

PHMSA grants this special permit subject to the following conditions:

- 1) Empire must continue to operate the 24-inch Empire State Pipeline five (5) *special permit segments* at or below their existing MAOP as follows:
  - Western Section - from Mile Post 0 in Niagara County, New York to Mile Post 90.8 in Ontario County, New York - MAOP 1440 psig; and
  - Eastern Section - from Mile Post 90.8 in Ontario County, New York to Mile Post 157 in Oswego County, New York - MAOP of 1000 psig.
- 2) Empire must incorporate each of the five (5) *special permit segments* into its written integrity management program (IMP) as a “*covered segment*” in a “*high consequence area (HCA)*” in accordance with § 192.903, except for the reporting requirements contained in § 192.945. Empire need not include the *special permit segments* described in this special permit in its IMP baseline assessment plan unless those areas meet the conditions of an HCA in accordance with § 192.905.
- 3) Empire must perform a close interval survey (CIS) of the 24-inch Empire State Pipeline along the entire length of the *special permit inspection areas*<sup>3</sup> no later than one (1) year after the grant of this special permit and remediate any areas of inadequate cathodic protection. A CIS and remediation need not be performed, if Empire has performed a CIS and remediation on the 24-inch Empire State Pipeline along the entire length of all *special permit inspection areas* less than four years prior to the grant of this special permit. If factors beyond Empire’s control prevent the completion of the CIS and remediation within one (1) year, a CIS and remediation must be

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<sup>3</sup> Each condition that requires Empire to perform an action with respect to the *Special Permit Inspection Areas* shall also require Empire to perform that action on all *Special Permit Segments* within such Areas.

completed as soon as practicable and a letter justifying the delay and providing the anticipated date of completion must be submitted to the Director, PHMSA Eastern Region<sup>4</sup> no later than one (1) year after the grant of this special permit.

- 4) Empire must perform periodic CIS of the *special permit segments* at the applicable reassessment interval(s) for a “covered segments” determined in concert and integrated with in-line inspection (ILI) in accordance with 49 CFR 192 Subpart O reassessment intervals as contained in 49 CFR §§ 192.937 (a) and (b), 192.917, and 192.939, not to exceed a seven-year reassessment interval.
  
- 5) Within one (1) year of the grant of this special permit Empire must perform a Direct Current Voltage Gradient (DCVG) survey or an Alternating Current Voltage Gradient (ACVG) survey of each *special permit segment* to verify the pipeline coating conditions and must then remediate any integrity issues in the *special permit segments*. A DCVG or ACVG survey and remediation need not be performed on *special permit segments* if Empire has performed a DCVG or ACVG and remediation in accordance with this special permit condition on the 24-inch Empire State Pipeline along the entire length of the *special permit inspection area* less than four years prior to the grant of this special permit. Empire must remediate any damaged coating indications found during these assessments that are classified as moderate (i.e. 35% IR and above for DCVG or 50 dB $\mu$ V and above for ACVG) or severe based on NACE International Recommended Practice 0502-2002, “*Pipeline External Corrosion Direct Assessment Methodology*”, (NACE RP 0502-2002<sup>5</sup>). A minimum of two coating survey assessment classifications must be excavated, classified and/or remediated per each survey crew per each time the survey is performed. If factors beyond Empire’s control prevent the completion of the DCVG or ACVG survey and remediation within one (1) year, a DCVG or ACVG survey and remediation must be performed as soon as practicable and a letter justifying the delay and providing the anticipated date of completion must be submitted to the Director, PHMSA Eastern Region no later than one (1) year after the grant of this special permit.

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<sup>4</sup> In the case of any Special Permit condition that requires Empire to provide documentation to the PHMSA Region, Empire must also send a copy of such documentation to the appropriate state authorities, in states that have interstate agent agreements with PHMSA.

<sup>5</sup> When PHMSA adopts a revised edition of a referenced NACE International or ASME standard into 49 CFR Part 192, the referenced requirements of those revised standards are automatically incorporated into these special permit conditions.

- 6) Empire must evaluate the 24-inch Empire State Pipeline for stress corrosion cracking (SCC) as follows:
- a) Empire must perform a stress corrosion cracking direct assessment (SCCDA) or other appropriate assessment method for SCC [such as pressure test or ILI with a crack detection tool] of the 24-inch Empire State Pipeline along the entire length of the *special permit inspection area* according to the requirements of § 192.929 and/or NACE SP 0204-2008 no later than one (1) year after of the grant of this special permit. The SCCDA or other approved method must address both high pH SCC and near neutral pH SCC. A SCCDA need not be performed if Empire has performed a SCCDA of the 24-inch Empire State Pipeline along the entire length of the *special permit inspection area* less than four years prior to the grant of this special permit. If factors beyond Empire's control prevent the completion of the SCCDA survey and remediation within one (1) year, a SCCDA and remediation must be performed as soon as practicable and a letter justifying the delay and providing the anticipated date of completion must be submitted to the Director, PHMSA Eastern Region no later than one (1) year after the grant of this special permit. [Empire may eliminate this Condition 6 (a), provided Empire provides an engineering assessment showing that the pipeline does not meet the criteria for either near neutral and high pH SCC per the applicable edition of the American Society of Mechanical Engineers Standard B31.8S, "*Managing System Integrity of Gas Pipelines*" (ASME B31.8S) Appendix A3, or NACE SP 0204-2008, "*Stress Corrosion Cracking (SCC) Direct Assessment Methodology*", Section 1.2.1.1 and 1.2.2]
  - b) If the threat of SCC exists as determined in Condition 6 (a) and when the Empire State Pipeline 24-inch mainline is exposed for any reason in the *special permit inspection area* and the coating has been identified as poor during the pipeline examination, then Empire must directly examine the pipe for SCC using an accepted industry detection practice such as dry or wet magnetic particle tests. Poor coating is a coating that has become damaged and is losing adhesion to the pipe which is shown by falling off the pipe, is porous, has pin holes, and/or shields the cathodic protection. Visual inspection is not sufficient to determine 'poor coating' or damaged coating, and it is expected that a holiday detection test at the correct voltage will be performed. Empire must keep coating records of all excavation locations in the *special permit inspection area* to demonstrate the coating condition.

- 7) Empire must submit the DCVG or ACVG, CIS and SCCDA [or other PHMSA approved methods of determining SCC] findings including remediation actions in a written report to the Director, PHMSA Eastern Region, no later than one (1) year after the grant of this special permit.
- 8) Empire must amend applicable sections of its operations and maintenance (O&M) manual(s) to incorporate the inspection and reassessment intervals by in-line inspection (ILI) including both high resolution magnetic flux leakage metal loss tools (high resolution MFL) and geometry tools of the 24-inch Empire State Pipeline along the entire length of the *special permit inspection area* at a frequency consistent with 49 CFR Part 192, Subpart O, but not to exceed a seven-year reassessment interval. [Deformation tools with +/- 1% accuracy may be considered as a replacement for geometry tools.]
- 9) Empire must amend applicable sections of its O&M manual(s) to require the CIS inspection and reassessment intervals of the 24-inch Empire State Pipeline *special permit segments* at a frequency consistent with 49 CFR Part 192, Subpart O, but not to exceed a seven-year reassessment interval.
- 10) Empire must perform ILI assessments on the 24-inch Empire State Pipeline from Canada Mile Post (MP) 0 to Mendon MP 86 by August 31, 2011, and from Mendon MP 86 to Phoenix MP 157 by September 30, 2011. Subsequent ILI assessments of the 24-inch Empire State Pipeline along the entire length of the *special permit inspection area* must conform to the required maximum reassessment intervals specified in § 192.939, but not to exceed a seven-year reassessment interval.
- 11) Empire must schedule ILI reassessment dates for the 24-inch Empire State Pipeline along the entire length of the *special permit inspection area* according to § 192.939 by adding the required time interval to the previous assessment date, but not to exceed a seven-year reassessment interval.
- 12) Empire must incorporate the applicable best practices of the Common Ground Alliance (CGA) into its damage prevention program for the *special permit inspection area*.

- 13) Empire must give a minimum of 14 days notice to the Director, PHMSA Eastern Region to enable him/her to observe the excavations relating to Conditions 5, 6, 19, 20, 21, 22, 23, and 24 of field activities in the *special permit inspection area*. Immediate response conditions do not require a 14-day notice, but the PHMSA Eastern Region Director should be notified by Empire no later than two business days after the immediate condition is discovered.
- 14) Empire shall not let this special permit impact or defer any of the operator's assessments for HCAs under 49 CFR Part 192, Subpart O.
- 15) Within three (3) months following the grant of this special permit and annually<sup>6</sup> thereafter, Empire must report the following to the Director, PHMSA Eastern Region and Director, PHMSA Regulations:
- a) In the first annual report, Empire must describe the economic benefits of the special permit including both the costs avoided from not replacing the pipe and the added costs of the inspection program. Subsequent annual reports should address any changes to these economic benefits.
  - b) In the first annual report, fully describe how the public benefits from energy availability. This should address the benefits of avoided disruptions as a consequence of pipe replacement and the benefits of maintaining system capacity. Subsequent reports must indicate any changes to this initial assessment.
  - c) The number of new residences, other structures intended for human occupancy and public gathering areas built within the *special permit inspection area*.
  - d) Any new integrity threats identified during the previous year and the results of any ILI or direct assessments performed during the previous year in the *special permit inspection area*.
  - e) Any reportable incident, any leak normally indicated on the DOT Annual Report and all repairs on the pipeline that occurred during the previous year in the *special permit inspection area*.
  - f) Any on-going damage prevention initiatives affecting the *special permit inspection area* and a discussion of the success of the initiatives.
  - g) Any mergers, acquisitions, transfer of assets, or other events affecting the regulatory responsibility of the company operating the pipeline.

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<sup>6</sup> Annual reports must be received by PHMSA by the last day of the month in which the Special Permit is dated. For example, the annual report for a Special Permit dated May 20, 2010, must be received by PHMSA no later than May 31, each year beginning in 2011.

- 16) At least one (1) cathodic protection (CP) pipe-to-soil test station must be located within each HCA with a maximum spacing between test stations of one-half mile within an HCA. In cases where obstructions or restricted areas prevent test station placement, the test station must be placed in the closest practical location. This requirement applies to any HCA within the *special permit inspection area*.
- 17) If any annual CP test station readings within the *special permit inspection area* fall below 49 CFR Part 192, Subpart I requirements, remediation must occur within six months and include a CIS on each side of the affected test station to the next test station and perform any identified corrosion system modifications to ensure acceptable corrosion control. If factors beyond Empire's control prevent the completion of remediation within six months, remediation must be completed as soon as practicable and a letter justifying the delay and providing the anticipated date of completion must be submitted to the Director, PHMSA Eastern Region no later than the end of the six months completion date.
- 18) Interference Currents Control: Empire must address induced AC from parallel electric transmission lines and other interference issues in the *special permit inspection area* that may affect the pipeline. An induced AC program or DC program to protect the pipeline from corrosion caused by stray currents must be in place within one (1) year of the date of this special permit.
- 19) Field Coating: The coatings used on the pipeline and girth weld joints in the *special permit segments* must be non-shielding to CP. In the event that the coating type is unknown or is known to shield CP for girth weld joints then Empire must take special care to:
- a) Analyze ILI logs in the areas of girth welds for potential corrosion indications.
  - b) Any ILI corrosion indications above 30% wall loss at girth welds where the coating type is unknown or is known to shield CP, girth weld joints must be exposed and evaluated each time the ILI is run or until the girth weld coating is replaced.
  - c) A minimum of two girth weld joints at locations most likely to have shielding and corrosion shall be exposed and evaluated each time ILI is run. If corrosion is found, the next most likely joint is to be exposed and evaluated until no corrosion is found.

20) Anomaly Evaluation and Repair:

- a) General: Empire must account for ILI tool tolerance and corrosion growth rates in scheduled response times and repairs with documentation and technical justification of the values used. Empire must demonstrate ILI Tool tolerance accuracy for each ILI Tool run by usage of calibration excavations and unity plots that demonstrate ILI Tool accuracy for depth within +10% accuracy for 80% of the time. The unity plots must show: a) actual anomaly depth versus predicted depth and b) actual failure pressure/MAOP versus predicted failure pressure/MAOP. Discovery date must be within 60 days of an ILI Tool run for each type ILI Tool (geometry, deformation or high resolution MFL).
- b) Dents: Empire must repair dents to the 24-inch Empire State Pipeline in the *special permit inspection areas* in accordance with § 192.933 repair criteria. *Special permit inspection areas* must have a geometry or deformation tool inspection as part of the initial ILI, if no geometry or deformation tool has been completed it must be completed and all dent repairs made in accordance with § 192.933 repair criteria. The geometry tool can be from past ILI inspections. The timing for these dent repairs should follow Empire's O&M Manual but must not be longer than one (1) year after discovery.
- c) Investigation and Repair Criteria: Investigation, evaluation, and repair criteria applies to all anomalies located on the 24-inch Empire State Pipeline within the *special permit segments* and *special permit inspection area* when they have been excavated, investigated, and remediated in accordance with §§ 192.485 and 192.933 incorporating appropriate class location design factors in the anomaly repair criteria, including HCAs as follows:
- *Special permit segments* - Repair any anomaly within a *special permit segment* that meets either: (1) a failure pressure ratio<sup>7</sup> (FPR) less than or equal to 1.39 for original Class 1 location pipe in a Class 3 location operating up to 72% of the specified minimum yield strength (SMYS); (2) an anomaly depth greater than or equal to 40% of pipe wall thickness.
  - *Special permit inspection areas* – Repair any anomaly within a *special permit inspection area* that meets either: (1) an FPR less than design factor – for Class 1 location – FPR equal to or less than 1.39; for Class 2 location – FPR equal to or less than 1.67; and for Class 3 location – FPR equal to or less than 2.0; (2) an anomaly depth equal to or greater than 60% wall thickness loss.

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<sup>7</sup> Failure pressure ratio (FPR) is based upon the class location where the *special permit segment* or *special permit inspection area* pipe is located in accordance with § 192.5 and is the reciprocal of the class location design factor in § 192.111(a).

- Repair anomalies in original Class 1 location pipe that are now in a Class 2 location in accordance with §§ 192.5 and 192.611 that meets either: (1) is equal to or less than the Class 1 location FPR of 1.39; (2) an anomaly depth equal to or greater than 50% wall thickness loss for anomaly repairs.
  - Repair anomalies in original Class 2 location pipe that is now in a Class 3 location in accordance with § 192.611 that meets either: (1) is equal to or less than the Class 2 location FPR of 1.67; (2) an anomaly depth equal to or greater than 50% wall thickness loss for anomaly repairs.
- d) Response Time for ILI Results: The following guidelines provide the required timing for excavation, investigation, and remediation of anomalies based on ILI data results in accordance with §§ 192.485 and 192.933, and must incorporate appropriate class location design factors in the anomaly repair criteria for *special permit segments* and *special permit inspection areas* including all HCAs. Reassessment by ILI will reset the timing for anomalies not already investigated and/or repaired. Empire must evaluate ILI data by using either the ASME Standard B31G, “*Manual for Determining the Remaining Strength of Corroded Pipelines*” (ASME B31G), the modified B31G (0.85dL) or R-STRENG for calculating the predicted FPR to determine anomaly responses.
- *Special permit segments*:
    - Immediate response: Any anomaly within a *special permit segment* operating up to 72% SMYS that meets either: (1) an FPR equal to or less than 1.1; (2) an anomaly depth equal to or greater than 80% wall thickness loss.
    - One-year response: Any anomaly within a *special permit segment* with original Class 1 location pipe in a Class 3 location operating up to 72% SMYS that meets either: (1) an FPR equal to or less than 1.39; (2) an anomaly depth equal to or greater than 40% wall thickness loss.
    - Monitored response: Any anomaly within a *special permit segment* with original Class 1 location pipe in a Class 3 location operating up to 72% SMYS that meets both: (1) an FPR greater than 1.39; (2) an anomaly depth less than 40% wall thickness loss. The schedule for the response must take tool tolerance and corrosion growth rates into account.
  - *Special permit inspection area*:

- Immediate response: Any anomaly within a ***special permit inspection area*** operating up to 72% SMYS that meets either: (1) an FPR equal to or less than 1.1; (2) an anomaly depth equal to or greater than 80% wall thickness loss.
- One-year response: Any anomaly within a ***special permit inspection area*** that meets either: (1) an FPR less than design factor – for Class 1 location- FPR equal to or less than 1.39; Class 2 location – FPR equal to or less than 1.67; and for Class 3 location – FPR equal to or less than 2.0; (2) an anomaly depth equal to or greater than 60% wall thickness loss.  
Any anomaly for Class location changes from original Class 1 to 2 location or original Class 2 to 3 location in accordance with §§ 192.5 and 192.611 that meets either: (1) an anomaly FPR equal to or less than the FPR of the original Class location; (2) an anomaly depth equal to or greater than 50% wall thickness loss.
- Monitored response: Any anomaly within a ***special permit inspection area*** that meets both: (1) an FPR less than design factor – for Class 1 location – FPR greater than 1.39; Class 2 location – FPR greater than 1.67; and for Class 3 location – FPR greater than 2.0; (2) an anomaly depth less than 60% wall thickness loss.  
Any anomaly repairs for Class location changes from original Class 1 to 2 location or original Class 2 to 3 location in accordance with §§ 192.5 and 192.611 that meets both: (1) an anomaly FPR greater than the FPR of the original Class location; (2) an anomaly depth less than 50% wall thickness loss.
- The schedule for the response must take tool tolerance and corrosion growth rates into account.

e) ***Special permit segments and special permit inspection area***: Upon receipt of this special permit, Empire must implement the repair of any pipe anomalies or dents that does not meet Condition 20 based upon existing ILI results from the high resolution MFL and geometry/caliper tools ran in August and September of 2004. Remediation of anomalies and dents must be completed in accordance with Condition 20 timing requirements and completed within 12 months from grant of this special permit.

21) Empire must provide records to PHMSA to demonstrate the girth welds in each ***special permit segment*** meet the below requirements:

- a) The Federal pipeline safety regulations at the time the pipelines were constructed. If not, show that at least 10% of the girth welds in each ***special permit segment*** were non-

destructively tested after construction but prior to the application for this special permit provided at least two girth welds in each *special permit segment* were excavated and inspected.

- b) If Empire cannot provide girth weld records to PHMSA to demonstrate either of the above in Condition 21 (a), Empire must accomplish either (i); or (ii) and (iii) of the following:
- i) Certify to PHMSA in writing that there have been no in-service leaks or breaks in the girth welds on the 24-inch Empire State Pipeline within the entire *special permit inspection area* for the entire life of the pipeline, or
  - ii) Evaluate the terrain along each *special permit segment* for threats to girth weld integrity from soil or settlement stresses and remediate all such integrity threats; and
  - iii) Excavate<sup>8</sup>, visually inspect and nondestructively test at least two girth welds on the 24-inch Empire State Pipeline in each *special permit segment* in accordance with the American Petroleum Institute Standard 1104, “*Welding of Pipelines and Related Facilities*” (API 1104) as follows:
    - A. Use the edition of API 1104 current at the time the pipeline was constructed; or
    - B. Use the edition of API 1104 recognized in the Federal pipeline safety regulations at the time the pipeline was constructed; or
    - C. Use the edition of API 1104 currently recognized in the Federal pipeline safety regulations.
- c) If any girth weld in any of the *special permit segments* does not comply with API 1104, Empire must repair the girth weld immediately and then prepare an inspection and remediation plan for all remaining girth welds in the *special permit segments* based upon the repair findings and the threat to the *special permit segments*. Empire must submit the inspection and remediation plan for girth welds to the Director, PHMSA Eastern Region and remediate girth welds in the *special permit segments* in accordance with the inspection and remediation plan within 60 days of finding girth welds that do not meeting this Condition 21 (c).
- d) All oxy-acetylene girth welds, mechanical couplings and wrinkle bends in any *special permit segment* must be removed.

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<sup>8</sup> Empire must evaluate for SCC any time the 24-inch Empire State Pipeline is uncovered in accordance with Condition 6 (b) of this special permit.

- e) Empire must complete the girth weld testing, and the girth weld inspection and remediation plan, within six months after the grant of this special permit. If factors beyond Empire's control prevent the completion of these tasks within six months, the tasks must be completed as soon as practicable and a letter justifying the delay and providing the anticipated date of completion must be submitted to the Director, PHMSA Eastern Region no later than six months after the grant of this special permit.

22) Empire must identify all shorted casings (metallic or electrolytic) within each *special permit segment* no later than six months after the grant of this special permit and classify any shorted casings as either having a "metallic short" (the carrier pipe and the casing are in metallic contact) or an "electrolytic short" (the casing is filled with an electrolyte) using a commonly accepted method such as the Panhandle Eastern, Pearson, DCVG, ACVG or AC Attenuation.

- a) Metallic Shorts: Empire must clear any metallic short on a casing in the *special permit segments* no later than six months after the short is identified.
- b) Electrolytic Shorts: Empire must remove the electrolyte from the casing/pipe annular space on any casing in the *special permit segments* that has an electrolytic short no later than six months after the short is identified.
- c) All Shorted Casings: Empire must install external corrosion control test leads on both the carrier pipe and the casing in accordance with § 192.471 to facilitate the future monitoring for shorted conditions and may then choose to fill the casing/pipe annular space with a high dielectric casing filler or other material which provides a corrosion inhibiting environment provided an assessment and all repairs were completed.

If Empire identifies any shorted casings within the *special permit segments*, they must monitor<sup>9</sup> all casings within the *special permit segments* for shorts at least once each calendar quarter, but at intervals not to exceed 100 days, for four consecutive calendar quarters after the grant of this special permit. The intent is to identify through monitoring the calendar quarter(s) when electrolytic casing shorts are most likely to be identified. Empire must then monitor all casings for shorts within the *special permit segments* at least once each calendar year during the calendar quarter(s) when electrolytic casing shorts are most likely to be identified. Any casing shorts

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<sup>9</sup> Monitoring of casings in this situation means an acceptable test method in accordance with 49 CFR Part 192 to determine if the casing and carrier pipe have either a metallic or electrolytic short (connection or contact).

found in the *special permit segments* at any time must be classified and cleared as explained above.

23) Pipe Seam Evaluations: Empire must identify any pipeline in the *special permit inspection area* that may be susceptible to pipe seam issues because of the vintage of the pipe, the manufacture of the pipe, or other issues. Once Empire has identified such issues, they must complete one or all of the following:

- a) Empire must perform an engineering analysis to determine if there are any pipe seam threats on the 24-inch pipeline located in the *special permit inspection area*. This analysis must include the documentation that the processes in 'M Charts' in "*Evaluating the Stability of Manufacturing and Construction Defects in Natural Gas Pipelines*" by Kiefner and Associates updated April 26, 2007 under PHMSA Contract DTFAA-C0SP02120 and Figure 4.2, 'Framework for Evaluation with Path for the Segment Analyzed Highlighted' from TTO-5 "*Low Frequency ERW and Lap Welded Longitudinal Seam Evaluation*" by Michael Baker Jr., and Kiefner and Associates, et. al. under PHMSA Contract DTRS56-02-D-70036 were utilized along with other relevant materials. If the engineering analysis shows that the pipe seam issues on the 24-inch Empire State Pipeline located in the *special permit inspection area* are not a threat to the integrity of the pipeline, Empire does not have to complete Conditions 23 (b) through 23 (e). If there is a threat to the integrity of the pipeline, then one or more of Conditions 23 (b) through 23 (e) must be completed; or
- b) The *special permit segments* in the pipeline must be hydrostatically tested to a minimum pressure of 100 percent SMYS, per 49 CFR Part 192, Subpart J requirements for eight continuous hours, within one (1) year of issuance of this special permit if no 49 CFR Part 192, Subpart J hydrostatic test has been performed since 1971. The hydrostatic test must confirm no systemic issues with the weld seam or pipe. A root cause analysis, including metallurgical examination of the failed pipe, must be performed for any failure experienced to verify that it is not indicative of a systemic issue. The results of this root cause analysis must be reported to the Director, PHMSA Eastern Region within 60 days of the failure; or
- c) If the pipeline in the *special permit inspection area* has experienced a seam leak or failure in the last five (5) years and no hydrostatic test meeting the conditions of 49 CFR Part 192, Subpart J was performed after the seam leak or failure, then a hydrostatic test must

be performed within one (1) year after the grant of this special permit on the *special permit segment* pipeline; and

- d) If the pipeline in any *special permit segment* has any Low Frequency (LF) Electric Resistance Weld (ERW) seam or Electric Flash Weld (EFW) seam conditions as noted in (i), (ii), or (iii) below, the *special permit segment* pipeline must be replaced:
  - i) constructed or manufactured prior to 1954 and has had any pipe seam leaks or ruptures in the *special permit inspection area*,
  - ii) has unknown manufacturing processes, or
  - iii) has known manufacturing or construction issues that are unresolved [such as concentrated hard spots, hard heat-affected weld zones, selective seam corrosion, pipe movement that has lead to buckling, have had past leak and rupture issues, or any other systemic issues].
- e) If the pipeline in any *special permit segment* has a reduced longitudinal joint seam factor, below 1.0, as defined in § 192.113 the *special permit segment* pipeline must be replaced.
- f) All pipe in *special permit segments* must have all weld seam or girth weld repairs that have been made by the usage of fittings such as weldolets, threadolets, repair clamps and pipe sleeves removed and replaced with pipe in accordance with 49 CFR Part 192 requirements.

24) Empire must comply with the following requirements:

- a) Empire must mechanically and/or hydrostatically test pipe in each *special permit segment* that does not meet Condition 25 (b) as follows:
  - i) A minimum of 10% of pipe lengths/joints, or at least 2 pipe lengths/joints when percentage is less than 2 pipe lengths/joints, must be tested in accordance with §§ 192.109 and 192.107(b).
  - ii) *Special permit segment* pipe must meet the requirements of § 192.107 (b).
  - iii) *Special permit segment* pipe must be tested for mechanical and chemical properties as required in 49 CFR Part 192, Appendix B, Section III (B) and (C).
  - iv) Pipe that is tested for properties in accordance with Condition 24 (a)(i),(a)(ii) and (a)(iii), must meet the hydrostatic test requirements of 49 CFR Part 192, Appendix B, Section III (C)(2). Original Class 1 location pipe that is approved for Class 3 locations per this special permit must be tested to a minimum of 100% SMYS for 8 continuous hours in accordance with 49 CFR Part 192, Subpart J.

- v) The requirements in Condition 24 (a) must be completed within one (1) year of issuance of this special permit and must meet pipe properties requirements for the pipe designed class location factor in accordance with § § 192.103, 192.105, 192.107, 192.109, 192.111 and 192.113.
  - b) Empire must complete within one (1) year of the grant of this special permit a depth of cover survey of the *special permit segments*. Any pipe in the *special permit segments* that does not meet § 192.327(a) must have additional safety measures implemented in areas with reduced depth of cover. Empire must submit to the Director, PHMSA Eastern Region for PHMSA approval remedial measures to implement based upon the threat, such as lowering the pipeline, increased pipeline patrols and/or additional line markers.
  - c) Empire must complete within one (1) year of the grant of this special permit installation of line-of-sight markers in the *special permit segments* and *special permit inspection area*. Agricultural areas or large water crossings such as lakes where line-of-sight markers are impractical will not be required to have line-of-sight markers. The marking of pipelines is also subject to Federal Energy Regulatory Commission (FERC) orders and environmental permits and local restrictions.
  - d) Empire must perform aerial patrols monthly, with the maximum time interval not to exceed 45 days, weather permitting, in the *special permit segments* and *special inspection areas*.
  - e) Class 4 locations are not included in this special permit.
- 25) Empire must maintain the following records for each *special permit segment*:
- a) Documentation showing that each *special permit segment* has received a § 192.505, Subpart J, hydrostatic test for 8 continuous hours and at a minimum pressure of 1.25 X MAOP. If Empire does not have hydrostatic test documentation, then the *special permit segment* must be hydrostatically tested to meet this requirement within one (1) year of the grant of this special permit.
  - b) Documentation (mill test reports) showing that the pipe in each *special permit segments* meets the wall thickness, yield strength, tensile strength and chemical composition of either the American Petroleum Institute Standard 5L, 5LX or 5LS, “*Specification for Line Pipe*” (API 5L) referenced in the 49 CFR Part 192 code at the time of manufacturing or if pipe was manufactured and placed in-service prior to the inception of 49 CFR Part 192 then the pipe meets the API 5L standard in usage at that time. Any *special permit*

*segment* that does not have mill test reports for the pipe can not be authorized per this special permit unless it is qualified in accordance with Condition 24 (a) above.

- c) Documentation of compliance with all the conditions of this special permit must be kept for the applicable life of this special permit for the referenced *special permit segments* and *special permit inspection area*.

26) PHMSA may extend the *special permit segments* to include segments of the 24-inch Empire State Pipeline up to the limits of the *special permit inspection area* pursuant to the following conditions. Empire must:

- a) Provide notice to the Director, PHMSA Eastern Region; Director, PHMSA Regulations; and Director, PHMSA Engineering and Emergency Support of a requested *special permit segment or extension* of the 24-inch Empire State Pipeline based on actual class location change and include a schedule of inspections, of any anticipated remedial actions and the location of the new request including survey stationing. All requests for a *special permit segment or extension* must be submitted in the first nine (9) months of the § 192.611(d) timing limits and must include information on the potential environmental impacts of the extension.
- b) Complete all inspections and remediation of the proposed *special permit segment or extension* to the extent required by the special permit.
- c) Comply with all the special permit conditions and limitations included herein to all future *special permit segments or extensions*.
- d) Comply with the conditions of this special permit for any new *special permit segments or extensions* required for implementation and certification in accordance with § 192.611(d) timing limits, including submittal of documents to PHMSA required in Condition 27.

27) Certification: A senior executive officer (Vice President or higher) of Empire must certify completion of the following in writing to the PHMSA Associate Administrator within twelve (12) months of issuance of this special permit or based upon the timing noted below:

- a) Empire State Pipeline *special permit inspection area* and *special permit segments* meet the conditions described in this special permit or the pipeline complies with § 192.611 requirements.
- b) The written manual of O&M procedures for the Empire State Pipeline has been updated to include all additional requirements of this special permit.

- c) Empire has implemented all conditions as required by this special permit.

Empire must send a copy of the certification required in Condition 27 (a) through (c) with completion date, compliance documentation summary and the required senior executive signature and date of signature to the PHMSA Associate Administrator with copies to the Director, PHMSA Eastern Region; Director, PHMSA Regulations; and Director, PHMSA Engineering and Emergency Support within one (1) year of the date of this special permit.

**Limitations:**

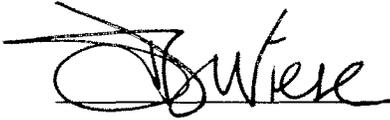
PHMSA grants this special permit subject to the following limitations:

- 1) PHMSA has the sole authority to make all determinations on whether Empire has complied with the specified conditions of this special permit.
- 2) Failure to submit the certifications required by Condition 27 within the time frames specified therein will result in automatic revocation of this special permit.
- 3) Should Empire fail to comply with any of the specified conditions of this special permit, PHMSA may revoke this special permit and require Empire to comply with the regulatory requirements in 49 CFR § 192.611.
- 4) PHMSA may revoke, suspend or modify a special permit based on any finding listed in 49 CFR § 190.341(h)(1) and Empire to comply with the regulatory requirements in 49 CFR § 192.611.
- 5) Should PHMSA revoke, suspend or modify a special permit based on any finding listed in 49 CFR § 190.341(h)(1), PHMSA will notify Empire in writing of the proposed action and provide Empire an opportunity to show cause why the action should not be taken unless PHMSA determines that taking such action is immediately necessary to avoid the risk of significant harm to persons, property or the environment (see 49 CFR § 190.341(h)(2)).
- 6) The terms and conditions of any corrective action order, compliance order or other order applicable to a pipeline facility covered by this special permit will take precedence over the terms of this special permit in accordance with 49 CFR § 190.341(h)(4).
- 7) PHMSA grants this special permit for a period of no more than five (5) years from the grant date. If Empire elects to seek renewal of this special permit, Empire must submit its renewal request at least 180 days prior to expiration of the five-year period to the PHMSA Associate Administrator with copies to the Director, PHMSA Eastern Region, Director, PHMSA Regulations, and Director, PHMSA Engineering and Emergency Support. PHMSA will consider requests for a special permit renewal for up to an additional five-year period. All requests for a special permit renewal must include a summary report in accordance with the requirements in Condition 15

above and must demonstrate that the special permit is still consistent with pipeline safety.  
PHMSA may seek additional information from Empire prior to granting any request for special permit renewal.

AUTHORITY: 49 U.S.C. 60118 (c)(1) and 49 CFR § 1.53.

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Jeffrey D. Wiese,

Associate Administrator for Pipeline Safety