FARRIS MATHEWS BOBANGO, PLC

ATTORNEYS AT LAW

Nashville · Memphis

HISTORIC CASTNER-KNOTT BUILDING
618 CHURCH STREET, SUITE 300
NASHVILLE, TENNESSEE 37219

(615) 726-1200 telephone · (615) 726-1776 facsimile

Charles B. Welch, Jr.
cwelch@farrismathews.com

Direct Dial:
(615) 687-4230

November 29, 2010

Filed Electronically; Original Hand Delivered

filed electronically in docket office on 11/29/10

Hon. Mary W. Freeman, Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37243-0505

Re: Renewco-Meadow Branch, LLC – Application for Special Permit
Docket No. 10-00195

Dear Chairman Freeman:

Enclosed for filing is Renewco-Meadow Branch, LLC's Response to Staff's Second Data Request. The original and four copies will be hand delivered subsequent to the electronic filing.

The Applicant respectfully requests the application be considered by the Directors at the next scheduled Agenda Conference, December 13, 2010. Due to unforeseen contingencies, it has become urgent that the Applicant establish with certainty all materials to be used in the construction of the project. Thank you for your time and consideration in this matter.

Very truly yours,

FARRIS MATHEWS BOBANGO PLC

Charles B. Welch, Jr.

Enclosure

BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

In the Matter of:

Application of Renewco-Meadow Branch, LLC for a Special Permit to Install Glass Reinforced Epoxy (GRE) Thermoset Pipe	)))	Docket No. 10-00195

Response to Staff's Second Data Request

Applicant, Renewco-Meadow Branch, LLC, through its counsel, provides the following answers in response to the data request issued by the Authority:

1. Is the leak survey data available with respect to other onshore installations of Fiberspar line pipe used to transport natural gas? If so, what were the results of the leak surveys?

ANSWER: The Columbia Gas Transmission (CGT) installation is the only other DOT-regulated pipeline in the U.S. CGT reported no failures or leaks since the pipe was originally installed in 2005. Other Fiberspar gas applications have been for non-DOT pipelines and not subject to leak survey requirements.

2. Has any blistering or collapse been observed during the installation, testing and/or subsequent use of Fiberspar line pipe?

ANSWER: CGT, a subsidiary of NiSource Gas Transmission & Storage, reported no problems (no collapses or failures) during installation or while in operation. Sections of the pipe installed by CGT have been removed for testing and evaluation by Jana Laboratories Inc. at periodic intervals. Reports indicate all pipe samples appear to be in "as new" condition. These findings are consistent with tests performed prior to the CGT installation. Please see the report Blister Resistance testing of HDPE Pipe Liner to API 17J that conveys results of tests performed to evaluate the pipe's resistance to "blistering. The following is an excerpt from the report:

> **5. CONCLUSIONS**
> The 2½" 750 psi, 2½" 1500 psi and 3" 2500 psi HDPE tubing supplied by Fiberspar for explosive gas decompression testing to API 17J passed the specification for blister resistance. No blistering or splitting was observed on any sample indicating good reproducibility across the product range and lot-to-lot consistency.

A copy of the full report is attached hereto as Exhibit A.

3. Will personnel installing the pipe and fittings for this project be qualified in accordance with the operator's operator qualification program?

ANSWER: While Renewco-Meadow Branch, LLC recognizes new construction does not fall within the Operator Qualification (OQ) rule, employees and/or contractors performing covered tasks for this project will follow the guidelines and requirements of the company's OQ plan. Renewco-Meadow Branch, LLC, as a subsidiary of AGL Resources, adopts the guidelines and requirements of the AGLR Operator Qualification Plan. A copy of the AGLR Operator Qualification Plan is attached hereto as Exhibit B. Fiberspar personnel will provide training unique to the Fiberspar installation method to compliment the company's existing pipe installation procedures. Fiberspar's field operations staff will also provide technical support during construction of the Fiberspar pipeline.

Respectfully submitted this 29th day of November, 2010.

Charles B. Welch, Jr.
Farris Mathews Bobango PLC
618 Church Street, Suite 300
Nashville, TN 37219
(615) 726-1200
cwelch@farrismathews.com

EXHIBIT A

MERL

- REPORT -

BLISTER RESISTANCE TESTING OF HDPE PIPE LINER TO API 17J

Prepared for:	**Fiberspar Corporation** **Attn: Dr Tom Wideman**
Prepared by:	**G J Morgan**
Date:	**19th July 2002** **Revised 1st August 2002**
Document Number :	**FIB/1 Rev. A**
Client Reference:	**PO 7494**

TABLE OF CONTENTS

1. SYNOPSIS

Three samples of HDPE pipe liner were submitted to explosive gas decompression testing to measure blister resistance according to API 17J. The samples were short lengths of 2½" OD 750 psi, 2½" OD 1500 psi and 3" OD 2500 psi tubing extruded at both Argos and Fiberspar.

Exposure was carried out in 97/3 methane/carbon dioxide at 60°C and 2500 psi with an initial soak period of two days. Decompression was then performed daily at 70 bar/minute with visual inspection of the samples after each cycle. 20 cycles were completed.

All the samples passed the specification which states that no blistering or slitting shall be observed at x20 magnification. No damage was witnessed to the three PE samples, demonstrating the good reproducibility across the product range and lot-to-lot consistency of the PE3408 material.

2. INTRODUCTION

In order to evaluate the explosive decompression resistance of HDPE pipes of various dimensions, Fiberspar requested that MERL subject the pipes to testing outlined in API 17J, paragraph 6.2.3.2 for blister resistance determination.

Explosive decompression resistance is an important property for polymers contacting any fluid with a high pressure gas phase, and is possibly the most critical in that other liner properties become irrelevant if rapid gas decompression causes extensive fracturing. Thermoplastics vary in their propensity to blister/fracture during a decompression event. The extent of damage to a polymer increases with increasing temperature (which determines material modulus), gas pressure and decompression rate. API 17J recommends testing to reflect design considerations and sets some minimum requirements such as number of decompressions (20) and decompression rate (70 bar/minute).

3. METHOD

Three types of tubing were tested, two of 2½" OD and one of 3" OD with pressure ratings increasing from 750 psi through 1500 psi to 2500 psi respectively. Tubing lot numbers were Fiberspar L-E 2 ½" 750 Lot#LEB2500750-X02End, Fiberspar L-E 2 ½" 1500 Lot#LEB2501500-001End, and Argos L-E 3" 2,500 Lot#1265End. Three split rings of minimum length 1" (see Figure 1) were cut from each tube to assess reproducibility.

The samples were placed in a suitable heated (60°C) pressure vessel which was pressurised with test gas (97/3 CH_4/CO_2 test certificate Appendix 1) to 2500 psi using an air-driven gas booster pump. The temperature was recorded with a type K thermocouple accurate to within ±1°C, this actually entering the test vessel through a sealed fitting to give measurement close to the samples. Pressure was measured

with a transducer calibrated against an inertia-free spinning deadweight tester (see Appendix 2 for calibration chart). Figure 2 gives a schematic of the test set-up.

An initial soak period of two days at test conditions was considered adequate to ensure saturation of the samples with test gas before commencement of decompression cycling. This value was derived by using a diffusion coefficient of: 1×10^{-6} cm^2/s for the gas in HDPE under the relevant conditions (based on permeation tests of similar details). The soak time is then calculated from the equation:

$$\bar{x}^2 = 2Dt$$

where x is the distance moved by the gas in the sample, D is the diffusion coefficient and t the time to travel distance x. Therefore for a pipe thickness of 5 mm, it will take 8.7 hours for gas to penetrate to the middle of the sample. A soak time of 48 hours is therefore more than generous for complete saturation.

Cycling was then continued as per the standard (see Appendix 3) with a 70 bar/minute decompression every weekday to a total of 20 cycles. The samples were inspected microscopically after each cycle and photographed.

4. RESULTS

A typical decompression record is given in Figure 3 which illustrates the close adherence to the required decompression rate of 70 bar/minute. The temporary decrease in temperature during decompression is a Joule-Thomson effect.

After each decompression, the samples were removed from the test cell and examined visually and at x20 magnification for signs of blistering, micro-bubbling and splitting. None was observed for any sample at any stage of the testing up to and including the 20th cycle. Figures 4 to 6 show the sample surfaces of the 2½" 750 psi, 2½" 1500 psi and 3" 2500 psi tubing respectively, both initially and after every fifth cycle thereafter (each photo is a 5.6 x 4.2 mm section of the sample reproduced at approximately x14 magnification).

5. CONCLUSIONS

The 2½" 750 psi, 2½" 1500 psi and 3" 2500 psi HDPE tubing supplied by Fiberspar for explosive gas decompression testing to API 17J passed the specification for blister resistance. No blistering or splitting was observed on any sample indicating good reproducibility across the product range and lot-to-lot consistency.

Pipes constructed with this material would be expected to survive at least 20 explosive decompression events of at least the severity witnessed in this work.

APPENDICES

Appendix 1: Gas Certificate

Production N°

93R657

Certificate

Expiry date

60 **23/05/2007**

Product	Formula	Nominal concentration	Actual Concentration	Absolute Accuracy	Units	Relative Accuracy	Certification Method	Method of preparation	Method of analysis
CARBON DIOXIDE	CO2	3	3.0003	± 0.06	% mol	± 2%	Gra	G	
METHANE	CH4	97	97.000	± 0.194	% mol	± 0.2%	Gra	G	

Supplementary Details

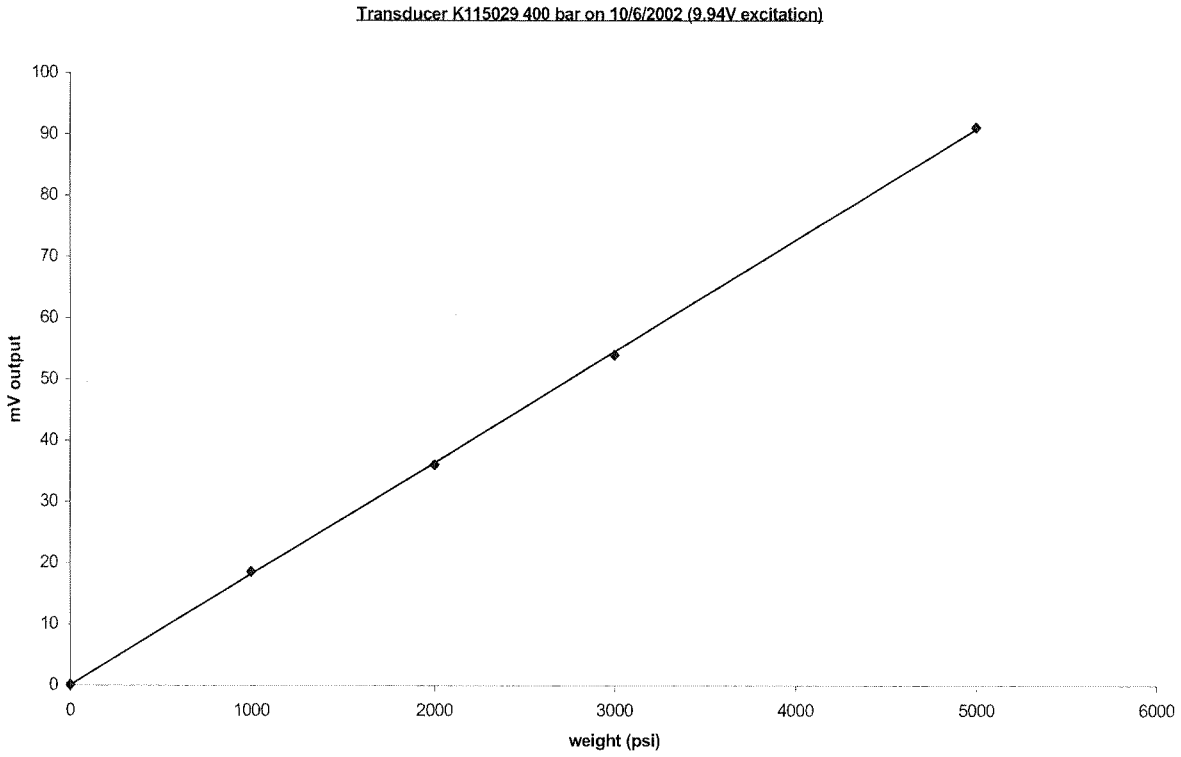
Certification Method : Gra = Gravimetric
Method of preparation : G = Gravimetric
Do not use below a pressure of 3 bar
Maintain storage and use temperature between -10 & 50 °C
Additional data: Risk and Safety phrases, MSDS n°, Customer name and others information are printed on the label
Traceable to international standards: Standard Mass n° 280682

Order Details

Cylinder Nr	**498027**	**189661**		
Customer Name			**Cylinder Size**	**K**
Customer Reference			**Valve outlet**	**BS 4**
Cylinder contents @ 15°C 1013 mbar	**10.1 m³**		**Certification Date**	**23/05/2002**
Filling pressure @ 15°C	**178 bar**		**Analyst**	**Wiart Christian**
Net filling weight	**7.12 kg**		**Signature**	

To Re-Order, Telephone 0845 7778800
Quoting Ref 457000K/00372

Appendix 2: Calibration Chart of Pressure Transducer


Transducer K115029 400 bar on 10/6/2002 (9.94V excitation)
mV output
100
90
80
70
60
50
40
30
20
10
0
0
1000
2000
3000
4000
5000
6000
weight (psi)

Appendix 3: API 17J Blister Resistance Test

6.2.3.2 Blistering Resistance

6.2.3.2.1 Blistering resistance tests shall reflect the design requirements, relating in particular to fluid conditions, pressure, temperature, number of decompressions, and decompression rate. As a minimum the following conditions shall apply:

Fluid mixture - Gas components of specified environment as documented in test procedure.

Soak Time - Sufficient to ensure saturation.

Test Cycles - If available use expected number of decompressions or else use 20 cycles as a minimum.

Decompression- If available use expected decompression rate or else use minimum 70 bar per minute.

Thickness - Internal pressure sheath wall thickness as a minimum.

Temperature - Expected decompression temperature.

Pressure - Design pressure as a minimum.

Procedure - After each depressurisation the sample shall be examined at a magnification of x20 for signs of blistering, swelling and slitting.

6.2.3.2.2 The acceptance criteria shall be that no blister formation or slitting is observed.

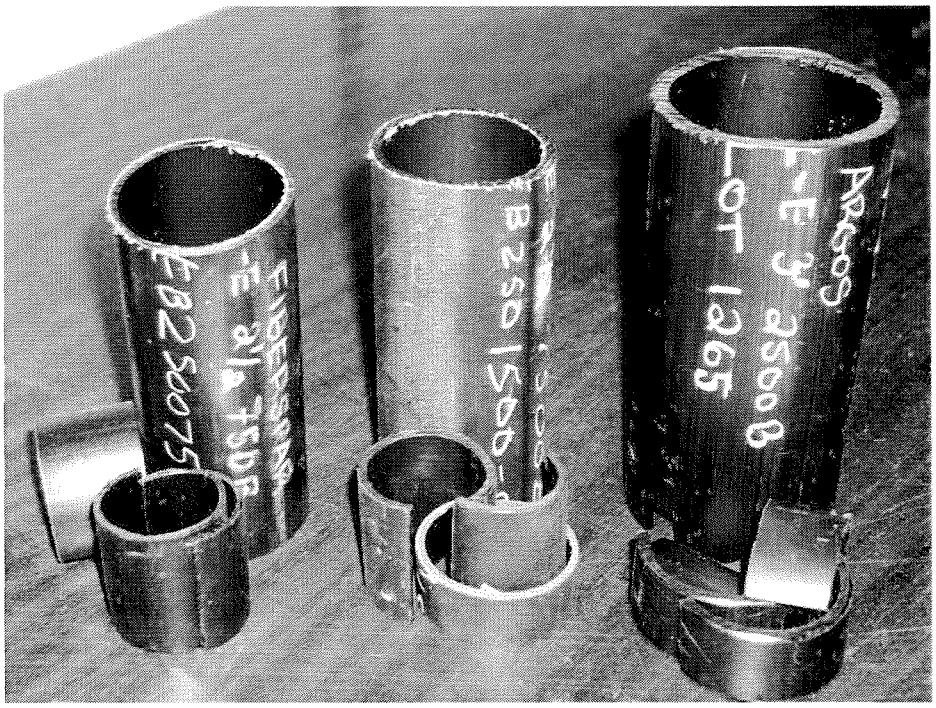


Figure 1: HDPE tubing and test samples

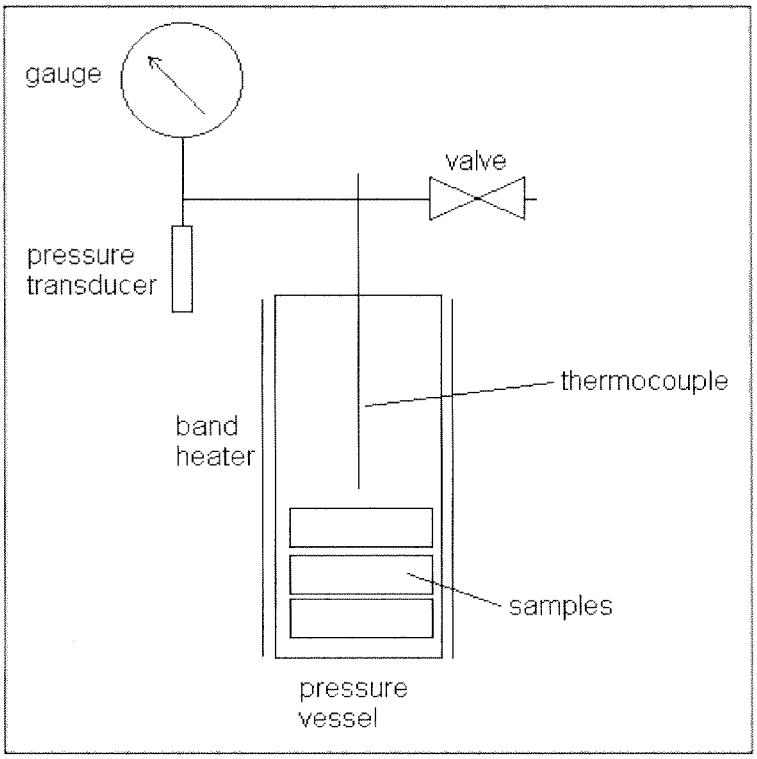


Figure 2: General set up of test rig

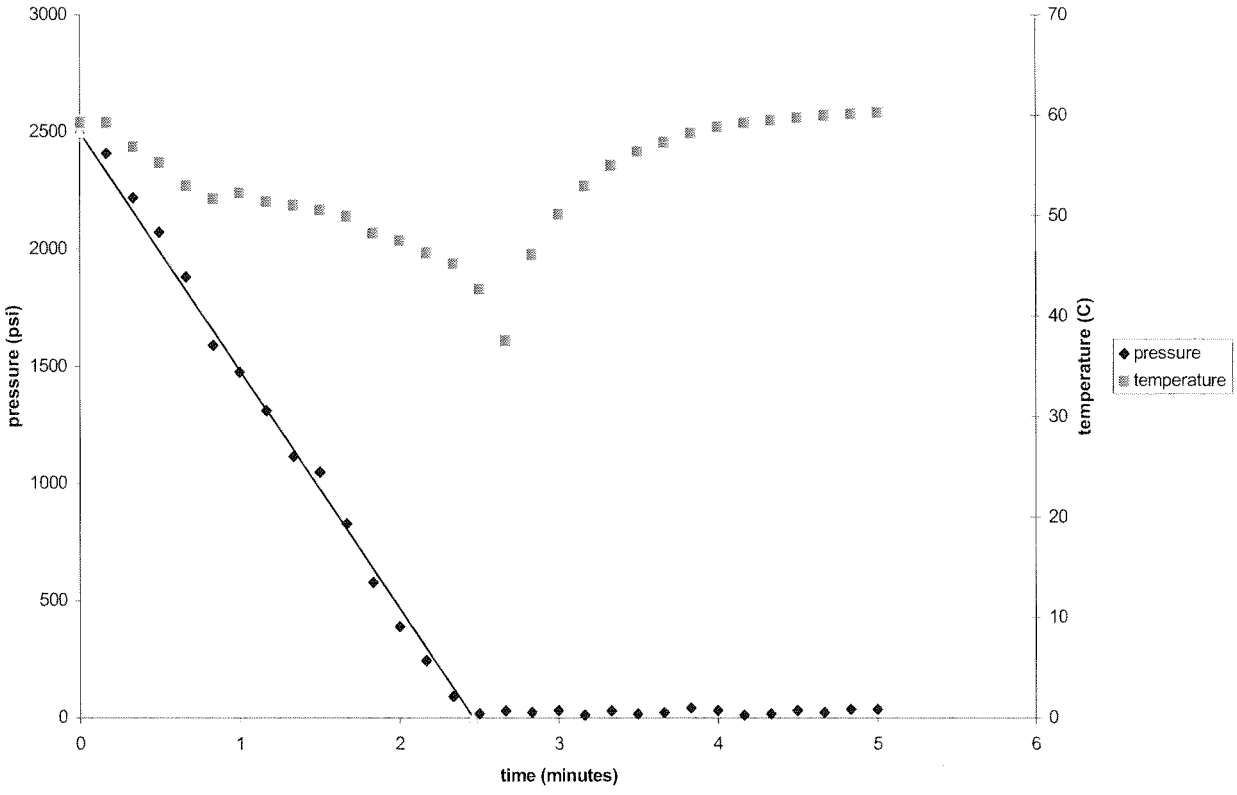
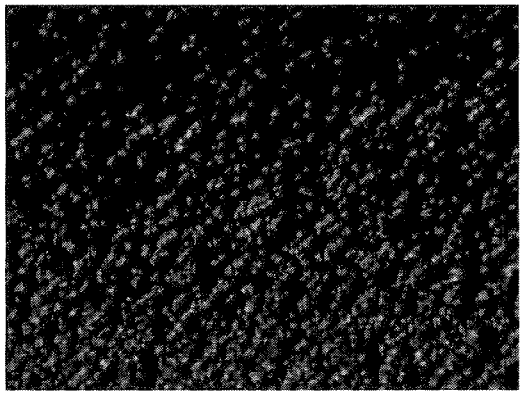
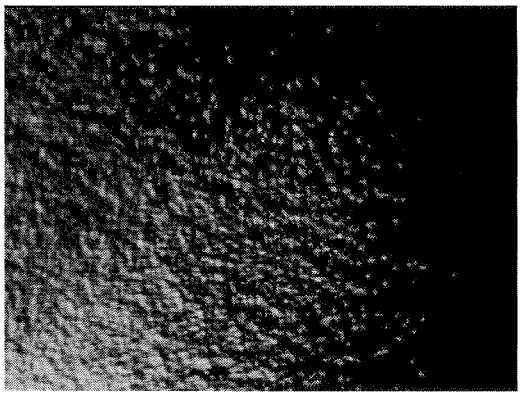


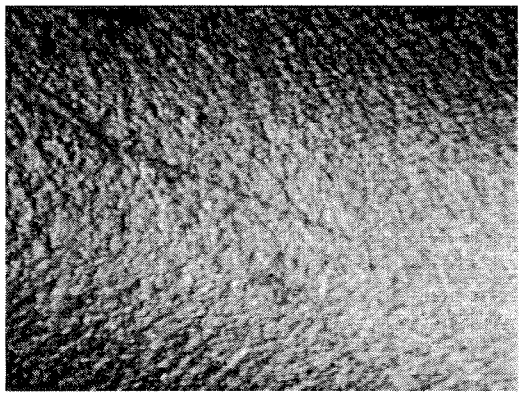
Figure 3: Typical explosive decompression plot of pressure and temperature



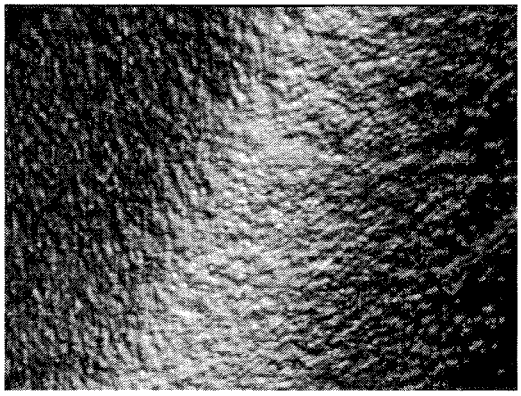
Initial



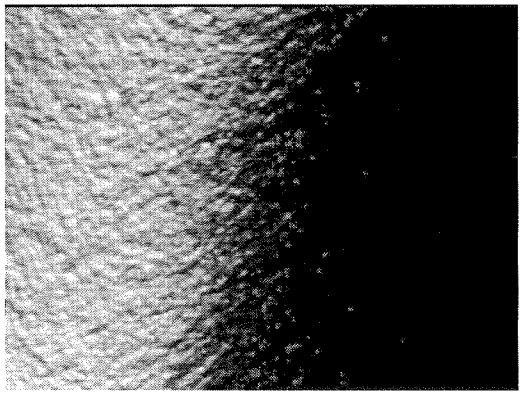
5 cycles



10 cycles

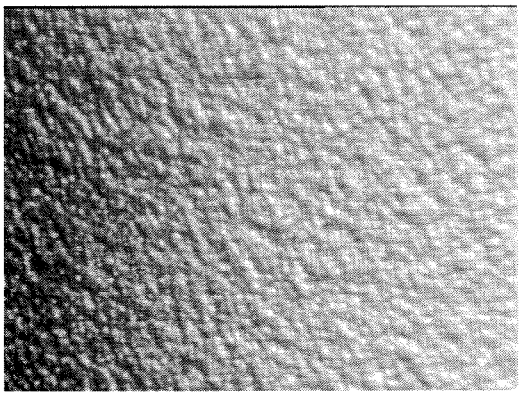


15 cycles

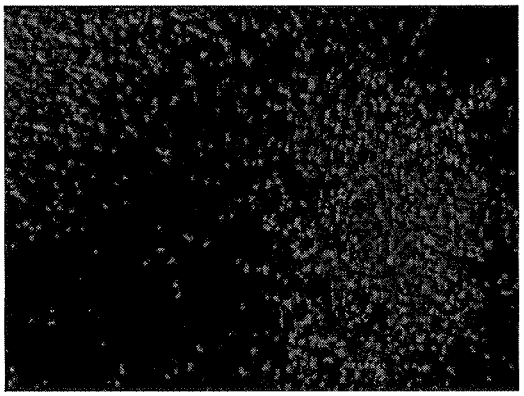


20 cycles

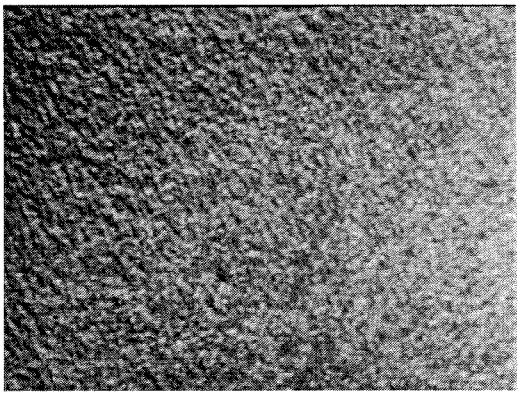
Figure 4: 2½" 750 psi tube (magnification ca. 14x)



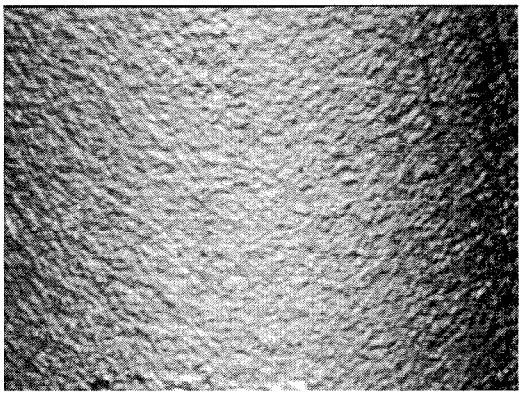
Initial



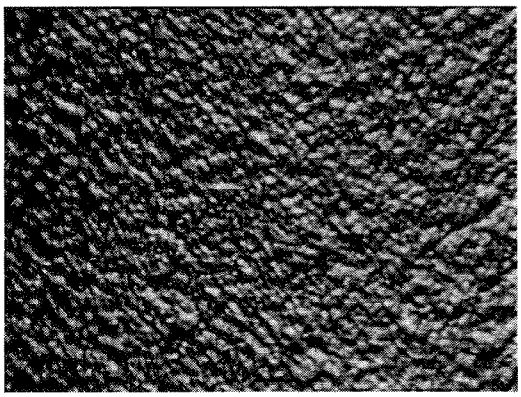
5 cycles



10 cycles

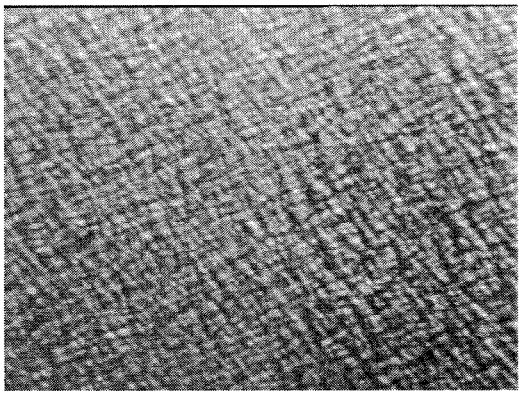


15 cycles

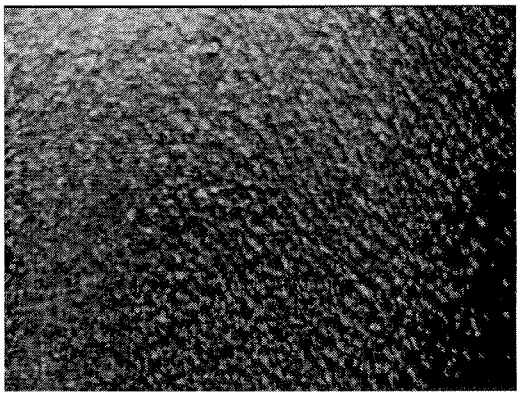


20 cycles

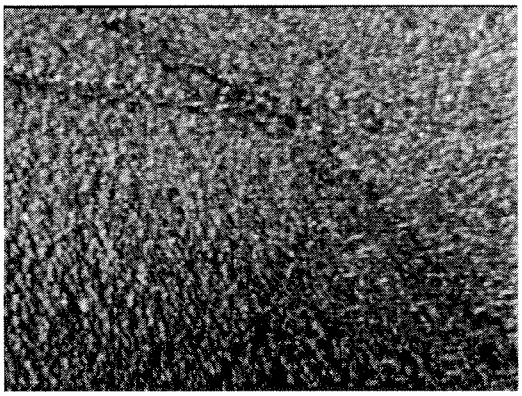
Figure 5: 2½" 1500 psi tube (magnification ca. 14x)



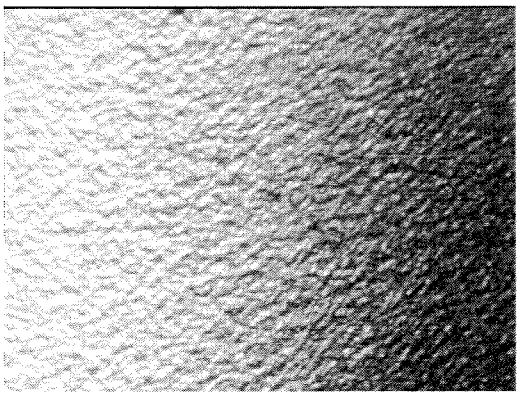
Initial



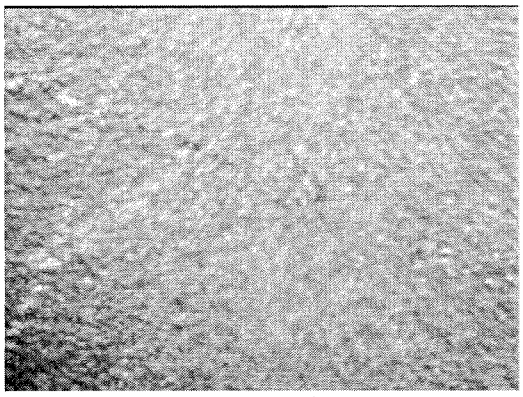
5 cycles



10 cycles



15 cycles

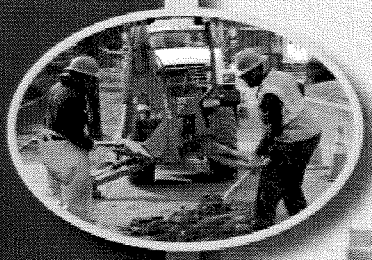


20 cycles

Figure 6: 3" 2500 psi tube (magnification ca. 14x)

EXHIBIT B

Atlanta Gas Light



AGL Resources

Chattanooga Gas

Elizabethtown Gas

Elkton Gas

OPERATOR QUALIFICATION PLAN

Florida City Gas

Virginia Natural Gas

Jefferson Island Storage & Hub

December 2007

Scope

Scope. The following documentation is the Operator Qualification Plan for AGL Resources and its subsidiaries, hereinafter called "the operator".

This plan outlines the protocol which the operator will use to comply with minimum federal pipeline safety regulations as defined in 49 CFR Part 192, Subpart N. The plan is designed to ensure a qualified workforce with the goal of reducing the probability and consequence of incidents on the operator's pipeline facilities that may be caused by human error.

The plan will also ensure that all employees and contractors performing covered tasks for the operator have satisfied the requirements stated herein and are qualified to perform such covered tasks. The covered tasks will include such tasks as are currently identified and included in this plan and those tasks that might be added in subsequent modifications to the plan.

The qualification plan applies to all individuals (employees and contractors) who perform covered tasks on behalf of the operator.

Effective Date of the Plan. The effective date of the plan is April 27, 2001, with verification of the qualification of persons performing identified covered tasks to be in place no later than October 28, 2002.

Sources. The information contained herein is assembled from data gathered from the following sources:

- Atlanta Gas Light Company
- Chattanooga Gas Company
- Virginia Natural Gas
- Elkton Gas
- Elizabeth Town Gas
- Florida City Gas
- Jefferson Island Storage and Hub
- Tennessee Gas Association Operator Qualification Program Guide
- Virginia Gas Operators Association Operator Qualification Task Force
- DOT Final Rule, 49 CFR Part 192, Subpart N, published August 27, 1999

Program Responsibilities

Operator Qualification Administrator. The Operator Qualification Administrator will have the following responsibilities:

(1) Act as liaison with internal and external entities, including contractors and regulatory bodies.
(2) Ensure qualification of operator and contractor employees on designated covered tasks.
(3) Notify directors, managers, supervisors and contractors of the operator when subsequent evaluations are required.
(4) Maintain and update the operator's qualification plan.
(5) Develop methods of qualifying individuals on various covered tasks.
(6) Maintain an updated list of covered tasks.
(7) Maintain qualification data.
(8) Communicate changes that may impact how a covered task is performed.
(9) Provide or coordinate the provision of training workshops for evaluators to ensure objectivity and consistency.

Operator Qualification Task Committee. This committee will be chaired by the Operator Qualification Administrator and will have the following responsibilities:

- periodic reviews of the plan to ensure compliance by employees and contractors

- identify new operating procedures, policies, regulations, equipment, pipeline material, processes etc., that may affect covered tasks and the qualification of individuals performing them

- determine qualification requirements of covered tasks and methods of evaluation

The committee may include but not be limited to at least one representative from each subsidiary that is responsible for the following: operations or maintenance activities, engineering activities and training activities. It may also include other members as needed based on their expertise and the needs of the committee.

Service Center Responsibilities. Service center management and supervision will be responsible to do the following:

(1) Identify which employees perform designated covered tasks.

(2) Ensure that covered tasks are only performed by qualified operator or contractor employees or are directed and observed by an individual who is qualified and can take corrective action immediately if necessary.

(3) Administer appropriate evaluations for qualification to perform covered tasks when required.

(4) Determine if an individual remains qualified to perform a task based on the requirements of sections 192.805(d) (Performance Contributing to an Incident) or 192.805(e) (Reasonable Cause to Verify Qualification).

Evaluators. Evaluators will include selected field experts from each subsidiary as well as persons from Regulatory Compliance and Engineering Services or their successors. Such evaluators will be responsible for the following:

(1) Evaluate the qualification of individuals performing covered tasks.

(2) Forward evaluation results to the Operator Qualification Administrator.

(3) Ensure notification of management regarding training needs to ensure operator and contractor employees have the knowledge and skills necessary to perform designated covered tasks.

(4) Maintain qualification records according to established requirements.

OQ Audits

The following outlines the audit process for the AGLR operator qualification plan. They are as follows:

An audit of OQ records and simulated props will be performed at each AGLR facility. The audit will take place as a part of the regularly scheduled safety audits.

An audit of OQ records and simulated props will be performed at all AGLR contractor locations. The audits will take place as part of a scheduled rotation of all AGLR contractors.

An evaluator performance audit will be conducted periodically at all AGLR and contractor facilities.

Additional audits will be conducted periodically by field supervision to ensure employees and contractors are performing covered task according to the AGLR Operation Procedure Manual (OPM) and OQ qualification procedures.

Occupational Safety, Codes and Compliance/Regulatory Compliance (OSCC/RC) will retain a copy of all OQ audits.

Training

AGLR has mandated that all individuals (employees and contractors) shall receive a Study/Training guide prior to an OQ evaluation.

Training for new AGLR employees and contractor employees who may perform a covered task should be trained accordingly and provided the opportunity to gain the knowledge, skills and ability to successfully complete the covered task evaluation.

Additional training may be provided for individuals who have demonstrated difficulty in successfully completing the evaluations.

Definitions

Abnormal Operating Condition: A condition identified by the operator that may indicate a malfunction of a component or a deviation from normal operations that may indicate a condition exceeding design limits or result in a hazard(s) to persons, property, or the environment.

Construction: Work performed to establish a new pipeline. This definition includes pipeline system expansion that extends service to a new customer or increases capacity for existing customers.

Covered Task: An activity identified by the operator that meets the four-part criteria established by 49 CFR Part 192, Subpart N. The established criteria are:

- Is performed on a pipeline facility
- Is an operations or maintenance task
- Is performed as a requirement of 49 CFR Part 192
- Affects the operation or integrity of the pipeline

Evaluation: A process established and documented by the operator, to determine an individual's ability to perform a covered task by any of the following:

(a) written examination
(b) oral examination
(c) computer-based training (CBT)
(d) work performance history review
(e) observation during
    - performance on the job
    - on-the-job training
(f) simulation (classroom, on-the-job, or computer)
(g) other forms of assessment

Incident: The following definition appears in 191.3. Incident means any of the following events:

(1) An event that involves release of gas from a pipeline or of liquefied natural gas or gas from an LNG facility, and; (i) a death, or personal injury necessitating in-patient hospitalization; or (ii) estimated property damage, including cost of gas loss, of the operator or others, of $50,000 or more.

(2) An event that results in an emergency shutdown of an LNG facility.

(3) An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2).

Initial Qualification: Qualification at any time of individuals who were not performing a covered task on a regular basis prior to the effective date of the rule.

Integrity: The pipeline's ability to operate safely and to withstand stresses imposed upon it during operation.

Maintenance: Work performed on an existing pipeline to ensure the continued use and serviceability of existing pipelines.

Non-Qualified: A term that denotes an individual who has not been evaluated **or** has been evaluated but is not qualified for a specific covered task due to the inability to perform both the specific covered task and to recognize and react to the abnormal operating condition(s) associated with that task.

Pipeline: All parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.

Pipeline facility: New and existing pipelines, rights-of-way, and any equipment, facility or building used in the transportation of gas or in the treatment of gas during the course of transportation.

Qualified: A term that denotes an individual who has been evaluated and can perform assigned covered tasks and recognize and react to abnormal operating conditions.

Significant Change: A change in operational procedures, regulations or equipment that warrant an immediate notification and re-qualification of all individuals qualified to perform the affected covered task.

Span of Control: The maximum allowable number of non-qualified individuals performing an identified covered task that a qualified individual may direct and observe.

Subsequent Qualification: Qualification of an individual performing a covered task after transitional or initial qualification at intervals established by the operator.

Transitional Qualification: Qualification of an individual who was performing covered tasks on a regular basis prior to the effective date of the Final Rule on October 26, 1999.

Work Performance History Review: A review of existing records for documentation of an individual's past satisfactory performance of a covered task(s), verification that the individual's work performance history contains no indications of substandard work or involvement in an incident caused by an error in performing a covered task, and verification that the individual has successfully performed the covered task on a regular basis prior to the effective date of the Final Rule on October 26, 1999.

Mutual Assistance

AGLR will review the OQ plan(s) from other entities and approve the scope and qualification processes used to ensure the operators OQ plan meets AGLR's OQ plan and procedures prior to any individuals performing a covered task. All individuals that are providing mutual assistance will work under directed and observed guidance of a qualified individual until such time that AGLR approves the operators OQ plan.

In the event that AGLR provides mutual assistance to other operators, the operator shall enter into an agreement indicating that AGLR's OQ plan has been reviewed and find it acceptable to the standards of their OQ plan in advance of any covered task functions being performed on their pipeline. All AGLR employees who may be called upon to provide mutual assistance shall be directed and observed by a qualified individual until such time the AGLR OQ plan has been approved by the operator having jurisdiction over the pipeline.

Mergers and Acquisitions

As part of a merger or acquisition of another gas operator that operates under 49 CFR Part 192 or 195 by AGLR, there shall be a review and comparison of its Operator Qualification (OQ) plan to ensure that at a minimum it meets or exceeds that of AGLR's OQ plan. The review process will include verifying qualification processes for all covered tasks, covered task list, documentation process for qualifications, training, record keeping and all other relevant components related to the OQ plan.

If, during the review of the operator's OQ plan, there are identified deficiencies in its plan, all deficiencies will be addressed prior to closing date of merger or acquisition.

After a merger or acquisition has been completed, the operator's employees will be required to requalify under AGLR's OQ program within a designated time frame.

AGLR will revise its OQ program and covered task list to add any needed covered task of the merged or acquired operator if it does not already exist in AGLR's covered task list.

Identify Covered Tasks
192.805(a)

The operator has identified covered tasks which may be performed on its pipeline facilities. The four-part criteria used to identify the covered tasks are as follows:

(1) Performed on a pipeline facility.
(2) Is an operations or maintenance task.
(3) Is performed as a requirement of 49 CFR Part 192, Subpart N.
(4) Affects the operation or integrity of the pipeline.

The number and types of tasks may vary by operator (Atlanta Gas Light Company, Chattanooga Gas Company, and Virginia Natural Gas). Modifications to the covered task list may be made at the discretion of the operator.

The operator will notify each contractor of any covered tasks, as identified by the operator and defined in 49 CFR Part 192, Subpart N, that are a part of work activities performed by the contractor on behalf of the operator. The notification will provide that these covered tasks can only be performed by an individual who is qualified, or who is direct and observed by an individual who is qualified to perform the covered tasks and who can recognize and react to abnormal operating conditions.

Covered tasks are identified in Appendix A.

Evaluation of Qualifications 192.805(b)

Types of Qualifications

The OQ rule defines three types of qualifications. They are transitional, initial, and subsequent.

Transitional Qualification – Qualification of individuals who were performing one or more covered tasks on a regular basis prior to the effective date of the rule (October 26, 1999), and who will be qualified prior to October 28, 2002.

Initial Qualification – Qualification of individuals who were not performing a covered task on a regular basis prior to the effective date of the rule (October 26, 1999).

Subsequent Qualification – Evaluation of an individual's qualifications after transitional or initial qualification at the interval established by the operator.

Methods of Evaluation

Each individual who is expected to perform a covered task will be evaluated using one or any combination of the following methods.

- Written examination
- Oral examination
- Computer-based training (CBT)
- Work performance history review
- Observation during
- Performance on the job
- On-the-job training
- Simulation (classroom, on-the-job, or computer)
- Other forms of assessment

Evaluations will be used to verify whether the individual has the knowledge and skills to perform the covered tasks and to recognize and react to abnormal operating conditions.

Each covered task hands-on evaluation contains questions relating to the requirements of that specific task. This segment of the evaluation is communicated verbally (orally) to individuals being evaluated. Therefore, all evaluations **excluding written evaluations** will be considered to include oral examination as part of the overall method of evaluation.

Oral examination is a written examination administered orally. Written evaluations **shall not** be administered orally **unless** there is a literacy issue involved. If a written evaluation must be administered orally, OSCC/RC shall be notified by E-Mail prior to the evaluation being

administered. This E-Mail shall be addressed to the Operator Qualification E-Mail box or operatorqualification@aglresources.com.

Work performance history may be used as a sole evaluation method for individuals performing covered tasks prior to October 26, 1999. AGLR requires all individuals to be qualified through the established evaluation methods of its OQ plan.

Work performance history may not be used as the sole qualification method after October 28, 2002

Should AGLR decide to use work performance history it may only be used as an enhancement to other evaluation methods as appropriate.

Evaluators. Evaluators are those individuals who evaluate the performance of the individuals who are expected to perform a covered task. The operator will ensure that its evaluators:

- have adequate knowledge to determine an individual's ability to properly perform covered tasks;
- have adequate knowledge to determine an individual's ability to recognize and react to abnormal operating conditions that might be encountered while performing those tasks; are objective and fair in their evaluations of individuals.

Non-Qualified Individuals 192.805(c)

Non-qualified individuals may be used to perform covered tasks provided they are directed and observed by a qualified individual while performing those tasks. All new employees that have not had the evaluations and qualifications shall work under the directions and observance of a qualified individual until they have successfully completed the covered task evaluation. For purposes of this plan, direct and observed means that a qualified individual must be at the work site, be able to recognize and react to an abnormal operating condition and be able to take immediate corrective action.

All qualified individuals who will be performing direct observance of non-qualified individuals must be able to verbally communicate in an effective manner to all non-qualified individuals being directed and observed by them.

Performance Contributing to an Incident 192.805(d)

Upon determination an incident has occurred as defined in 49 CFR Part 191, (see definitions) the operator shall conduct a complete investigation into factors related to the incident.

The investigation shall include, but is not limited to, the following:

- A comprehensive review of all associated covered tasks.
- A review of all individuals performing those covered tasks.
- A review of all pertinent facts related to the incident.

If during the investigation, it is determined that the actions or probable actions of an individual may have contributed to the incident, AGLC shall immediately suspend the individual's qualifications for the identified covered task(s) involved in the incident. The individual shall not perform the covered task(s) unless he or she is directed and observed by a qualified individual or until he or she has successfully re-qualified for the covered task(s) involved.

Any required re-evaluation will be made a part of the individual's qualification records.

Reasonable Cause to Verify Qualification 192.805(e)

Upon the determination of reasonable cause, the operator will investigate an individual's ability to perform a covered task.

Such causes may include but not be limited to:

- Change in an individual's physical abilities related to performance of the covered task.
- Documented statement(s) from the individual or other person(s) relative to the individual's inability to perform the covered task.
- Prolonged period of non-performance of the covered task.

    1. AGLR's OQ written plan identifies "prolonged period of non-performance of the covered task" as a reasonable cause to verify qualification of an individual. A period of 12 to 15 consecutive months defines a prolonged period. Therefore, individuals who do not perform a specific task in a 12 to 15 consecutive month period may be evaluated in accordance with the plan or shall be removed from the list of qualified individuals for that particular task and any linked task as applicable. Local management will be responsible for monitoring and ensuring compliance with this section.

- Documented unsatisfactory performance of the covered task.

If as a result of the investigation, the operator has reason to believe that an individual (operator or contractor employee) is no longer qualified to perform said task, that individual may be evaluated in accordance with the plan or removed from the list of qualified individuals for that particular task.

A Special Cause Verification Form (SCVF) shall be used to document any special cause that may disqualify an individual from performing a covered task.

Occupational Safety, Codes and Compliance/Regulatory Compliance (OSCC/RC) will determine if other possible causes (outside of those identified above) may exist are within the scope of AGLR's OQ written plan. Additional documentation as needed should be mailed along with the SCVF to OSCC/RC.

Communicating Changes 192.805(f)

Some changes may impact how a covered task is performed. These changes may include but are not limited to the following:

- Modifications to operator policies or procedures;
- Changes in state or federal regulations;
- Utilization of new equipment, materials, and/or technology; and
- New information from equipment or product manufacturers.

When appropriate, the operator will communicate changes in verbal, written or electronic format to individuals performing covered tasks. All communication of changes will be accompanied by appropriate written documentation that the affected individuals have received notification of the changes.

When significant changes occur that impact specific covered tasks, additional qualification requirements will be addressed, including the requalification of individuals performing the specific covered tasks.

Revisions will be documented and on file with OSCC. Changes to any part of the OQ program will be communicated to responsible individuals and evaluators. Changes will be identified by revision dates on appropriate documentation. All originals and revisions will be retained by OSCC.

All applicable state or federal regulatory agencies will receive written notification (electronically or via regular mail) of significant changes made to AGLR's OQ plan.

Evaluation Intervals 192.805(g)

Evaluation intervals for covered tasks are determined by the operator and are generally based upon frequency of performance, complexity, statutory requirements, and level of risk, a DIF scale was used to determine the revaluation interval for AGLR's covered task.

Evaluation intervals for subsequent qualification are included in Appendix B.

Recordkeeping 192.807

The operator will ensure maintenance of qualification-related records through one or more of the following methods:

- Paper
- Electronic
- Any other appropriate formats

Qualification records will include, but are not limited to:

- Identification of qualified individuals
- Identification of the covered tasks the individual is qualified to perform
- Date(s) of current qualification, and
- Qualification method(s)

Records supporting an individual's current qualifications will be maintained while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks will be retained for a period of five years.

The official OQ-related records for AGLR employees and contractors will be maintained by the OSCC/RC department. Evaluators will maintain a copy of the evaluations they have conducted in accordance with the OQ written plan. The OQ administrator will provide required documentation to internal, external and regulatory bodies as required.

Contractors

The company will verify that all individuals performing covered tasks, including contractor or subcontractor employees, are qualified according to the provisions set forth in this plan. The operator may, at its discretion, accept the provisions of a contractor's plan. Contractors shall make available, upon request, written records of their employees' qualifications. At a minimum, these records shall include:

- Identification of qualified individual(s)
- Identification of covered task(s) each individual(s) is qualified to perform
- Date of qualification for specified tasks
- Method of evaluation used to qualify the individual
- Name of individual and organization who evaluated each individual
- Subsequent intervals for evaluation for each covered task
- Evaluation outlines and materials
- List of non-qualified individuals who will perform tasks on behalf of the operator while under the direction of a qualified individual

The contractor or subcontractor shall provide any additional information requested by the operator pertaining to the qualification of individuals performing covered tasks on the operator's pipeline facility. The operator identifies the covered tasks.

A Contractor employee shall wait a minimum of 24 hours before attempting to retake a failed evaluation.

Span of Control

One covered task at a time shall be directed and observed by a qualified individual of a non-qualified individual(s) performing the covered task.

Individuals shall refer to the span of control document to define the number of individuals a qualified individual may direct and observe on a specific task. Section 2 of the OQ plan serves as a guide for qualified individuals who also must give due consideration to elements such as the weather when determining the number of individuals that can be directed and observed at a given time.

Appendix A
Covered Task List

Abandonment and deactivation of facilities
Abnormal operation of transmission lines
Cathodic protection testing (pipe-to-soil)
Damage prevention inspection
*ECC: Corrosion control – atmospheric
ECC: Corrosion control - evaluation of exposed pipe
ECC: Corrosion control – inspection
ECC: Corrosion control - inspection and application of coating
ECC: Corrosion control – installing test leads
ECC: Corrosion control - installing test station
ECC: Corrosion control – monitoring and evaluation
ECC: Corrosion control – repair
ECC: Corrosion control alloy fittings
ECC: Corrosion control testing
ECC: Electrical isolation
ECC: Electrical isolation - casing
ECC: Electrical isolation - testing
EFV installation
Generic Abnormal Operating Conditions
Hazard control
Increase system pressure (uprating)
Inspection of copper pipe
Inspection of plastic pipe
Inspection of steel pipe
Installation and maintenance of line markers
Installation of customers' meters and regulators
Installation of plastic pipe
Installation of steel pipe
Installation of support and anchors
Installing, operating, inspecting and testing pressure limiting devices
Internal corrosion control
Joining plastic pipe
Joining steel pipe by mechanical means
Leak investigation
Leak repairs
Leak survey
Leak survey and pipeline inspection
Monitoring system pressure
Nondestructive testing of welds
O&M of cast iron pipe
O&M of copper pipe

O&M of propane air peak shaving facilities
Odorant sampling
Odorization
Operation of pipeline components by system control
Patrolling pipelines
Pipe locating and marking
Pressure testing lines
Purging of pipelines
Regulator station inspections
Repair plastic pipe
Repair steel pipe
Response to a Notice of Emergency
Tapping
Valve inspection
Vault inspection and maintenance
Visual inspection of welds
Visual inspection of joining materials others than welding
Welding

*ECC = external corrosion control

Appendix B

Intervals for Subsequent Qualification

Covered Task	*Qualification Intervals/Yr*
001A-Abandonment and deactivation of facilities	5 NTE 63 months
001B-Abandonment and deactivation of facilities (service lines not in use)	5 NTE 63 months
001C-Abandonment and deactivation of facilities (service lines not in use) X-Pander Pipeline Plug	5 NTE 63 months
001SUBA Pipeline Shutdown, Startup or Pressure Change	5 NTE 63 months
003A- Cathodic Protection Testing (Pipe-To-Soil	3 NTE 39 months
003B- Cathodic Protection Testing (Pipe-To-Soil)-Survey Contractors	3 NTE 39 months
004A Damage Prevention Inspection	1 NTE 15 months
004B Damage Prevention Inspection (Excavation)	1 NTE 15 months
005A ECC: Corrosion control – atmospheric	5 NTE 63 months
005B ECC: Corrosion control – atmospheric meter sets	5 NTE 63 months
005C ECC: Corrosion control – atmospheric	5 NTE 63 months
006A ECC: Corrosion control - evaluation of exposed pipe	3 NTE 39 months
007A ECC: Corrosion control PD Unit– inspection	5 NTE 63 months
007B ECC: Corrosion control PCM Unit– inspection	5 NTE 63 months
008A ECC: Corrosion control - inspection and application of coating	3 NTE 39 months
009A ECC: Corrosion control – installing test leads	5 NTE 63 months
018A EFV installation	5 NTE 63 months
019A Hazard control	5 NTE 63 months
020A Increase system pressure (uprating)	3 NTE 39 months
021A Inspection of plastic pipe	5 NTE 63 months
022A Inspection of steel pipe	5 NTE 63 months
023A Installation and maintenance of line markers	5 NTE 63 months
024A Installation of customers' meters and regulators	3 NTE 39 months
025A Installation of plastic pipe	3 NTE 39 months
025B Installation of plastic pipe (Boring Process)	3 NTE 39 months
026A Installation of steel pipe	3 NTE 39 months
027A Installation of support and anchors	3 NTE 39 months
028A Installing, operating, inspecting and testing pressure limiting devices Regulator Stations	3 NTE 39 months
028B Installing, operating, inspecting and testing pressure limiting devices Residential and Commercial	3 NTE 39 months
029A Internal corrosion control	5 NTE 63 months
030A Joining plastic and Steel Pipe by Mechanical Means pipe	1 NTE 15 months
032A Leak investigation	1 NTE 15 months
032B Leak investigation Propane	1 NTE 15 months

032C Leak investigation (Survey contractors)	1 NTE 15 months
033A Leak repairs: Includes Use of Pit Depth Gauge	1 NTE 15 months
033B Leak repairs: Excludes Use of Pit Depth Gauge	1 NTE 15 months
034A Leak survey	3 NTE 39 months
034B Leak survey Propane	3 NTE 39 months
034C Leak survey (Survey Contractors)	3 NTE 39 months
037A Nondestructive testing of welds	1 NTE 15 months
038A O&M of cast iron pipe	5 NTE 63 months
039A O&M of copper pipe	3 NTE 39 months
040A O&M of propane air peak shaving facilities	3 NTE 39 months
041A Odorant Sampling Odorator	3 NTE 39 months
041B Odorant Sampling Odorometer	3 NTE 39 months
041C Odorant Sampling DETEX DX 1000GL	3 NTE 39 months
042A Operation of pipeline components by system control	3 NTE 39 months
043A Patrolling pipelines	5 NTE 63 months
043B Patrolling pipelines Aerial	5 NTE 63 months
044A Pipe locating and marking Pipehorn Model 100	1 NTE 15 months
044B Pipe locating and marking Pipehorn Model 500	1 NTE 15 months
044C Pipe locating and marking Metrotech Model 480/Heath LS 800/Heath LS 900	1 NTE 15 months
044D Pipe locating and marking Metrotech Model 810	1 NTE 15 months
044E Pipe locating and marking Metrotech Model 850	1 NTE 15 months
044F Pipe locating and marking Metrotech Model 9890	1 NTE 15 months
044G Pipe locating and marking DitchWitch RD 400PXL/Subsite 950/Subsite75R/RD 433XCTX-2	1 NTE 15 months
044H Pipe locating and marking DitchWitch RT	1 NTE 15 months
044I Pipe locating and marking Sure lock/Fisher M scope	1 NTE 15 months
044J Pipe locating and marking Nilsson Model 715	1 NTE 15 months
044K Pipe locating and marking Dynatel 2220L	1 NTE 15 months
044L Pipe locating and marking (Noggin)	1 NTE 15 months
045A Pressure testing lines	3 NTE 39 months
046A Purging of pipelines	3 NTE 39 months
046B Purging of pipelines Propane	3 NTE 39 months
051A Tapping Steel Pipe ½" to 2½"	3 NTE 39 months
051B Tapping Plastic Pipe	3 NTE 39 months
051C Tapping Steel Pipe 3" and above	3 NTE 39 months
051D Tapping Self-Tapping	3 NTE 39 months
051E Tapping Cast Iron Pipe	3 NTE 39 months
052A Valve Inspection	5 NTE 63 months
053A Vault inspection and maintenance	1 NTE 15 months
055A Visual inspection of joining materials others than welding Heat Fusion	1 NTE 15 months
055B Visual inspection of joining materials others than welding Electrofusion	1 NTE 15 months

056A Welding	1 NTE 15 months
057A Odorization	3 NTE 39 months
058A Inspection of Copper Pipe	5 NTE 63 months
059A Generic Abnormal Operating Conditions	1 NTE 15 months

*NTE = not to exceed

The evaluation intervals will be administered as follows:

- Annual evaluation intervals: Evaluation will occur once every calendar year not to exceed 15 months

- 3 year evaluation intervals: Evaluations will occur once every third calendar year not exceed 39 months

- 5 year evaluation intervals: Evaluation will occur once every fifth calendar year not to exceed 63 months.

Appendix C
Abnormal Operating Conditions

Abnormal Operating Conditions have been identified by the operator as conditions that an individual performing a covered task may encounter.

1. Escaping Gas – Any unplanned, uncontrolled escape of gas during the performance of a covered task.

2. Fire or Explosion – The uncontrolled ignition of gas while performing a covered task.

3. No Gas – Unplanned absence of gas caused by numerous factors including, but not limited to, inadvertent shut down (water, severed line, etc.) while performing a covered task.

4. Excessive Pressure – Pressure that exceeds the operating limits of the gas system while performing a covered task.

5. Inadequate Pressure – Pressure that falls below the normal operating requirements of the gas system during the performance of a covered task.

6. Improper Odorization – Excessive or inadequate odorization of a gas system while performing a covered task.

7. Environmental Incident – Uncontrolled spill or release of environmentally hazardous materials during the performance of a covered task.

8. Atmospheric Changes – Loss of a safe atmosphere while performing a covered task.

9. Damage to Facilities – Any damage to a pipeline component that occurs during the performance of a covered task.

10. Component Failure – Failure of a component of the pipeline to perform in the manner for which it was designed.

11. Exposed Facility – The unplanned exposure of facilities due to construction activity, washout, or any other circumstance.

12. Unmarked Facilities – Recognition of the presence of unmarked gas facilities in a construction area.

13. Stray Current – The presence of unintended electrical current on a pipeline facility.

Appendix D

Span of control is defined as the maximum number of non-qualified individuals performing an identified covered task that a qualified individual may directly observe.

	Span of Control	
Covered Task	**Covered Task Name**	**Maximum Number**
001A	Abandonment and Deactivation of Facilities	4
001B	Abandonment and Deactivation of Facilities (service line not in use)	3
001SUBA	Pipeline Shutdown, Startup or Pressure Change	3
003A	Cathodic Protection Testing (Pipe-To-Soil)	2
003B	Cathodic Protection Testing (Pipe-To-Soil) – Survey Contractors	2
004A	Damage Prevention Inspection	3
005A	ECC: CC - Atmospheric (Aboveground Pipelines)	3
005B	ECC: CC - Atmospheric (Meter Sets)	3
005C	ECE: Atmospheric Corrosion on Aboveground Structures (Survey Contractors)	3
006A	ECC: CC - Evaluation of Exposed Pipe	3
007A	Cathodic Protection System (PD Unit)	3
007B	Cathodic Protection System (PCM Unit)	2
008A	ECC: Inspection and Application of Coating	4
009A	ECC: Installing Test Leads (Test Stations)	3
018A	EFV Installation	0*
019A	Hazard Control	3
020A	Increase System Pressure (Uprating)	3
021A	Inspection of Plastic Pipe	3
022A	Inspection of Steel Pipe	3
023A	Installation and Maintenance of Line Markers	3
024A	Installation of Customers Meters and Regulators	2
025A	Installation of Plastic Pipe	4
026A	Installation of Steel Pipe	4
027A	Installation of Support and Anchors	3
028A	Installing, Operating, Inspecting and Testing Pressure Limiting Devises	3
028B	Installing, Operating, Inspecting and Testing Pressure Limiting Devises	3
029A	Internal Corrosion Control	3
030A	Joining Plastic and Steel Pipe by Mechanical Means	0**
032A	Leak Investigation	2
032B	Leak Investigation: Propane	2
032C	Leak Investigation (Survey Contractors)	2
033A	Leak Repairs: Includes Use of Pit Depth Gauge	3
033B	Leak Repairs: Excludes Use of Pit Depth Gauge	3
034A	Leak Survey	2
034B	Leak Survey: Propane	2
034C	Leak Survey (Survey Contractors)	2
037A	Nondestructive Testing of Welds	2
038A	O & M of Cast Iron Pipe	3

	Span of Control	
Covered Task	Covered Task Name	Maximum Number
039A	O & M of Copper Pipe	3
040A	O & M of Propane Air Peak Shaving Facilities	3
041A	Odorant Sampling Odorator	2
041B	Odorant Sampling Odorometer	2
041C	Odorant Sampling DETEX DX1000GL	2
042A	Operation of Pipeline Component by System Control	0*
043A	Patrolling Pipelines	3
043B	Patrolling Pipelines (Aerial)	3
044A	Pipe Locating and Marking (Pipehorn Model 100)	3
044B	Pipe Locating and Marking (Pipehorn Model 500)	3
044C	Pipe Locating and Marking (Metrotech Model 480/Heath LS 800/Heath LS 990	3
044D	Pipe Locating and Marking (Metrotech Model 810)	3
044E	Pipe Locating and Marking (Metrotech Model 850)	3
044F	Pipe Locating and Marking (Metrotech Model 9890)	3
044G	Pipe Locating and Marking (DitchWitch RD 400PXL / Subsite 950 / Subsite 75R/ RD 433XCTX-2	3
044H	Pipe Locating and Marking (DitchWitch RT)	3
044I	Pipe Locating and Marking (Surelock / Fisher M Scope)	3
044J	Pipe Locating and Marking (Nilsson Model 715)	3
044K	Pipe Locating and Marking (Dynatel 2220L)	3
045A	Pressure Testing Lines	3
046A	Purging of Pipelines	3
046B	Purging of Pipelines Propane	3
051A	Tapping (Steel Pipe: ½ " to 2½ ")	0*
051B	Tapping (Plastic Pipe)	0*
051C	Tapping (Steel Pipe: 3" and above)	0*
051D	Tapping (Self-Tapping)	0*
051E	Tapping (Cast Iron Pipe)	0*
052A	Valve Inspection	3
053A	Vault Inspection and Maintenance	3
055A	Visual Inspection of Joining Materials Other Than Welding (Heat Fusion)	0**
055B	Visual Inspection of Joining Materials Other Than Welding (Electrofusion)	0**
056A	Welding	0**
057A	Odorization	3
058A	Inspection of Copper Pipe	3
059A	Abnormal Operating Conditions AOC's	3

*Can not be performed under direct observation; all individuals performing this task must be OQ qualified.

**All individuals performing this task must be OQ qualified and must also posses a joining qualification card (49 CFR Part 192 regulatory requirements).