# **Inspection Output (IOR)**

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## **Inspection Information**

Inspection Name CNGC TIMP --

WA Intrastate

Status PLANNED

Start Year 2017

System Type GT

Protocol Set ID GT.2016.02

Operator(s) CASCADE NATURAL GAS CORP (2128)

Lead Dennis Ritter

Team Members Marion Garcia

Supervisor David Mulligan, Joe Subsits

Director Sean C. Mayo

Plan Submitted 09/11/2017

Plan Approval 09/18/2017 by Joe

Subsits

All Activity Start 05/08/2017

All Activity End 09/28/2017

Inspection Submitted --

Inspection Approval --

## **Inspection Summary**

2017 Transmission Integrity Management Inspection-procedures
Records review took place at CNGC HQ in Kennewick WA
AFOD

Pre inspection 3

Inspection 3

Post inspection 3

Exit interview was held the morning of 9/28/2017. Chris Grissom, Ryan Privratsky and Sam Hamilton were in attendance for CNGC.

#### Summary:

A Transmission Integrity Management Program inspection was conducted on September 26-28, 2017. A review of procedures and records to confirm CNGC's integrity program meets 49 CFR 192 Subpart P requirements and whether records supporting the program are consistent with the integrity plan requirements. The inspection was conducted in IA using the following question sets: The Gas Transmission Core question set. Field inspection of transmission assets was not conducted as the standard transmission inspection for CNGC is occurring the week of October 9-12, 2017. This inspection includes field inspection of transmission systems.

Findings from the inspection are as follows:

R Quality Assurance

Do records demonstrate that the quality assurance process for risk management applications is being completed as required by ASME B31.8S, Section 12? IM.OA.OARM.R

Findings: Reviewed 2014, 2015, 2016-Annual Scheduling and Evaluation of P&M Measures and Table 9.3. This table describes the audit process for different QC required audits.

Three years of evaluations for the P&M Measures all stated that "annual meeting" needs to be conducted. Apparently it has not. CNG needs to revise Plan to define when and if this meeting takes place. Currently IMP states in 9.2 and 9.5 that an annual evaluation is required to see if process for P&Ms have been followed and if additional language is required in Table 9.3. UNSAT

## Performance Metrics

Does the process to evaluate IM program effectiveness include an adequate set of performance metrics to provide meaningful insight into IM program performance? IM.QA.IMPERFMETRIC.P

Findings: Reviewed Section 10.5 Performance Metrics and Table 10.1 Required and Discretionary Metrics

CNG has a list of metrics Table 10.1. CNGC does not use most of these metrics (other than the four PHMSA required metrics). CNGC needs to assess and revise Table 10.1 and add metrics which provide meaningful insights. It is likely the metrics (other than the required PHMSA annual report metrics) are not being effectively used to improve the integrity management of CNG's transmission lines. UNSAT

#### **Measuring Program Effectiveness**

Do records demonstrate that the methods to measure Integrity Management Program effectiveness provide effective evaluation of program performance and result in program improvements where necessary? IM.QA.IMPERFEFECTIVE.R

Findings: Reviewed Table 10.1 Required and Discretionary Metrics

CNG has a list (Table 10.1) of which most don't apply other than PHMSA metrics. Need to assess list and discard those that are not used and see if there any which need to be added to provide meaningful insights. CNG has no trend analyses or other data showing the metrics are tracked and evaluated. It is likely the metrics (other than the required PHMSA annual report metrics) are not being effectively used to improve the integrity management of CNG's transmission lines. UNSAT

#### **Performance Metrics**

Do records demonstrate that performance metrics are providing meaningful insight into integrity management program performance? IM.QA.IMPERFMETRIC.R

Findings: Reviewed Table 10.1 Required and Discretionary Metrics

CNG has a list (Table 10.1) of which most don't apply other than PHMSA metrics. Need to assess list and discard those that are not used and see if there any which need to be added to provide meaningful insights. CNG has no trend analyses or other data

showing the metrics are tracked and evaluated. It is likely the metrics (other than the required PHMSA annual report metrics) are not being effectively used to improve the integrity management of CNG's transmission lines. UNSAT

## P Record Keeping

Is the process adequate to assure that required records are maintained for the useful life of the pipeline? IM.QA.RECORDS.P Findings: The TIMP does not have a specific location in the plan which is dedicated to record keeping. There are locations in specific chapters which define record keeping or documentation but not a holistic overview and procedure. CNG needs to revise the IMP to document all records requirements for integrity management. An example would be the on-going work to validate MAOP records. Data records for segment 080208-01--8" Bremerton Line, were completed in 2016. These records validate the pipe grade and indicate. Results were finalized in late 2016 and the Baseline Assessment should have been revised accordingly. However, this has not occurred as of the date of this inspection. Section 5.2.3 states "At the start of the calendar year the PIE will review the BAP and make any necessary changes with approval from the TIMPT". CNGC must ensure the BAPs are current and accurate. With the amount of new data to validate MAOP on many of the TIMP segments, CNGC must ensure the data is accurately and diligently recorded and archived per their procedures. UNSAT

## Scope (Assets)

#	Short Label	Long Label	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Total Inspected	Required % Complete
1		TIMP	other	HQ TIMP	Offshore GOM OCS Cast or Ductile Iron Copper Pipe Aluminum pipe AMAOP Service Line Storage Fields	147	147	147	100.0%

a. Percent completion excludes unanswered questions planned as "always observe".

#### **Plans**

#	Plan Assets	Focus Directives	Involved Groups/Subgroups	Qst Type(s)	Extent No	tes
1.		GT IM, Core	AR, CR, DC, EP, FS, IM, MO, PD, RPT, SRN, TD, TQ, GENERIC	P, R, O, S	Detail	
2.		n/a	EP.ERG.READINESS.O, EP.ERG.AUTHORITIES.P, EP.ERG.OUTAGERESTORE.P, EP.ERG.INCIDENTACTIONS.P, EP.ERG.INCIDENTANALYSIS.P, EP.ERG.INCIDENTANALYSIS.R, EP.ERG.POSTEVNTREVIEW.P, EP.ERG.REVIEW.R, EP.ERG.POSTEVNTREVIEW.R, EP.ERG.LIAISON.P, EP.ERG.LIAISON.R, EP.ERG.LOCATION.O, EP.ERG.NOTICES.R	P, R, O, S	Detail	
3.		n/a	MO.GOMAOP	P, R, O, S	Detail	

## **Plan Implementations**

											Required
	Activity	<b>SMART</b>	<b>Start Date</b>	Focus	Involved		Qst			Total	%
#	Name	Act#	<b>End Date</b>	Directives	<b>Groups/Subgroups</b>	Assets	Type(s)	Planned	Required	Inspected	Complete
1.	HQ Records		05/08/2017 05/12/2017		all planned questions	all assets	all types	147	147	147	100.0%

a. Since questions may be implemented in multiple activities, but answered only once, questions may be represented more than once in this table.

b. Percent completion excludes unanswered questions planned as "always observe".

## **Forms**

No.	Entity	Form Name	Status	Date Completed	<b>Activity Name</b>	Asset
1.	Attendance List	HQ Records	COMPLETED	10/13/2017	HQ Records	

## Results (Unsat, Concern values, 5 results)

## **IM.QA: Quality Assurance**

1. Question Result, ID, References	
	Do records demonstrate that the quality assurance process for risk management applications is being completed as required by ASME B31.8S, Section 12?
Assets Covered	Completed as required by ASPL BS1.05, Section 12:
	Need to verifie TMD to define when and if these meeting take place. Compatible TMD states in 0.2 and 0.5
Result Issue Summary	Need to revise IMP to define when and if these meeting take place. Currently IMP states in 9.2 and 9.5 that an annual evaluation is required to see if process for P&Ms has been followed and if additional language is required in Table 9.3.
Result Notes	Reviewed 2014, 2015, 2016-Annual Scheduling and Evaluation of P&M Measures
	Three years of evaluations all stated that annual meeting needs to be conducted. Has not. During audit, CNG personnel stated that P&Ms haven't changed and are pretty static as lines are pretty staticnot much happening around them. Need to revise IMP to define when and if these meeting take place. Currently IMP states in 9.2 and 9.5 that an annual evaluation is required to see if process for P&Ms has been followed and if additional language is required in Table 9.3.
2. Question Result, ID, References	
Question Text	Does the process to evaluate IM program effectiveness include an adequate set of performance metrics to provide meaningful insight into IM program performance?
Assets Covered	
Result Issue Summary	Need to assess and revise the list and discard those that are not used and see if there any which need to be added to provide meaningful insights. It is likely the metrics (other than the required PHMSA annual report metrics) are not being effectively used to improve the integrity management of CNG's transmission lines.
Result Notes	Table 10.1 Required and Discretionary Metrics
	CNG has a list of which most don't apply other than PHMSA metrics. Need to assess and revise the list and discard those that are not used and see if there any which need to be added to provide meaningful insights. It is likely the metrics (other than the required PHMSA annual report metrics) are not being effectively used to improve the integrity management of CNG's transmission lines.
3. Question Result, ID,	THINGST TWITTA TWIPERFEEL TIVE R TG / GA //ATTIG/ GT XINT 1G / GA 5/31 1G / GS 11
References	
Question Text	Do records demonstrate that the methods to measure Integrity Management Program effectiveness provide effective evaluation of program performance and result in program improvements where necessary?
Assets Covered	
Result Issue Summary	Need to assess list and discard those that are not used and see if there any which need to be added to provide meaningful insights.

implementation of operator's process.

Result Notes Reviewed Table 10.1 Required and Discretionary Metrics

Standard Issues A2 (Significant impact/limited occurrence): 192.947(d): Documentation does not demonstrate adequate

CNG has a list of which most don't apply other than PHMSA metrics. CNG needs to assess the list and discard those that are not used and see if there any which need to be added to provide meaningful insights. CNG has no trend analyses or other data showing the metrics are tracked and evaluated. It is likely the metrics (other than the required PHMSA annual report metrics) are not being effectively used to improve the integrity management of CNG's transmission lines.

#### 4. Question Result, ID, References

Unsat, IM.QA.IMPERFMETRIC.R, 192.947(d) (192.913(b);192.945(a);192.951)

Question Text Do records demonstrate that performance metrics are providing meaningful insight into integrity management program performance?

Assets Covered

Result Issue Summary | Need to assess list and discard those that are not used and see if there any which need to be added to provide meaningful insights. See question 10 Measuring Program Effectiveness.

Standard Issues A2 (Significant impact/limited occurrence): 192.947(d): Documentation does not demonstrate adequate implementation of operator's process.

Result Notes Reviewed Table 10.1 Required and Discretionary Metrics

CNG has a list of which most don't apply other than PHMSA metrics. CNG needs to assess the list and discard those that are not used and see if there any which need to be added to provide meaningful insights. CNG has no trend analyses or other data showing the metrics are tracked and evaluated. It is likely the metrics (other than the required PHMSA annual report metrics) are not being effectively used to improve the integrity management of CNG's transmission lines.

This question will be combined with question 10 Measuring Program Effectiveness for compliance purposes as they are very similar and the solution to one will satisfy the other--new and effective metrics.

5. Question Result, Unsat, IM.QA.RECORDS.P, 192.947(a)

ID, References (192.947(b);192.947(c);192.947(d);192.947(e);192.947(f);192.947(q);192.947(h);192.947(i);192.911(n))

Question Text Is the process adequate to assure that required records are maintained for the useful life of the pipeline?

Assets Covered

Result Issue CNG needs to revise the IMP to thoroughly describe the records retention process and who is responsible. Summary There's needs to be a holistic approach to records management to ensure all documentation necessary to support the decisions made on IMP are verifiable, traceable and reproducible.

Standard Issues A2 (Significant impact/limited occurrence): 192.947(d): Issue not covered in standard items. See Issue Summary text for details.

Result Notes CNG's TIMP does not have a specific location in the plan which discusses record keeping. There are locations in specific chapters which define record keeping or documentation but not a holistic overview and procedure. CNG needs to revise the IMP to document all records requirements for integrity management. An example would be the on-going work to validate MAOP records. Data records for segment 080208-01--8" Bremerton Line, were completed in 2016. These records validate the pipe grade and indicate. Results were finalized in late 2016 and the Baseline Assessment should have been revised accordingly. However, this has not occurred as of the date of this inspection. Section 5.2.3 states "At the start of the calendar year the PIE will review the BAP and make any necessary changes with approval from the TIMPT". CNGC must ensure the BAPs are current and accurate. With the amount of new data to validate MAOP on many of the TIMP segments, CNGC must ensure the data is accurately and diligently recorded and archived per their procedures.

Report Parameters: Results: Unsat, Concern

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