



Hydro Place, 500 Columbus Drive,
P.O. Box 12400, St. John's, NL
Canada A1B 4K7
t. 709.737.1400 f. 709.737.1800
www.nlh.nl.ca

August 1, 2014

The Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
St. John's, Newfoundland & Labrador
A1A 5B2

Attention: Ms. Cheryl Blundon
Director Corporate Services & Board Secretary

Dear Ms. Blundon:

**Re: The Board's Investigation and Hearing into Supply Issues and Power Outages
on the Island Interconnection System**

Please find attached the Winter Readiness Self-Assessment surveys for Hydro Generation, the Holyrood Thermal Generating Station, and Transmission and Rural Operations – Central (which includes Gas Turbines). These are provided as requested by the Board on July 21, 2014. These self-assessments are intended to evaluate higher level process and control robustness and people readiness. The self-assessment surveys focus on the areas of safety, management roles and expectations, processes and procedures, testing, training, winter event communications and program goals/metrics. These assessments do not evaluate the ongoing maintenance and project work related to winter readiness.

Surveys are completed through qualitative discussion by accountable management teams in each area and include direct observation where possible. The focus is on identifying continuous improvement opportunities.

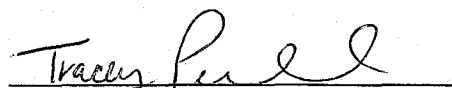
Survey results indicate Hydro has a good overall program to prepare for the upcoming winter season with some areas identified for continuous improvement. These are currently being prioritized and evaluated to develop action plans by September 30, 2014.

All identified actions critical to support winter readiness will be planned for completion prior to November 30, 2014.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Tracey L. Pennell
Legal Counsel

TLP/cp

cc: Gerard Hayes – Newfoundland Power
Paul Coxworthy – Stewart McKelvey Stirling Scales
Sheryl Nisenbaum – Praxair Canada Inc.
ecc: Roberta Frampton Benefiel – Grand Riverkeeper Labrador

Thomas Johnson – Consumer Advocate
Thomas O' Reilly – Cox & Palmer
Danny Dumaresque

Winter Readiness Self Assessment					
Response Definitions		Code	Points	2014 focus is to identify and improve gaps in the elements ranked as "Sometimes"	
Always - consistently done (95-100% of the time)		A	1		
Often - Majority of the time (75-95% of the time)		O	0.75		
Sometimes - Sometime completed (10-75% of the time)		S	0.5		
N - Not completed (completed less than 10% of the time)		N	0		
NA - Not applicable		NA	0		
Completed By: Leveson Kearley, Manager Hydro Generation		Region/Plant:		Hydro Generation	
		Audit Date:		June 30 2014	
#	Best Practice Questions	Answer Code	Points	Possible Points	COMMENTS Improvement Opportunities

I. Safety					
1	Have safe work policies, procedures, practices been developed specific to working in severe or extreme weather conditions?	O	0.75	1	
2	Have personnel equipment and work equipment been acquired specific to allow safe work in severe or extreme weather conditions?	A	1	1	
3	Have procedures and measures been identified and enabled as ready to be undertaken to ensure communication and access to emergency services in the event of severe or extreme weather conditions?	A	1	1	Cell phones and radios, contact lists.
4	Have procedures and measures been identified and enabled as ready to be undertaken to ensure sustainable, safe, and effective operations and management in the event of severe or extreme weather conditions?	O	0.75	1	Some have like preparedness for snowmobile travel, check-in procedures when working alone. On call rotation and process in place. Emergency response program in place.
5	Are safe work practices, methods, work protection, and permitting as per Maintenance Planning and Scheduling self-assessment being followed?	A	1	1	
Category Score			4.5	5	Safety
Percent			90%		

II. Management Roles & Expectations					
6	Senior Mgmt have set expectations for safety, reliability, and operational performance	O	0.75	1	
7	Senior Mgmt ensure a winter readiness preparation procedure exists for each facility/plant/region.	S	0.5	1	Focus has been for Hydro Generation as a whole, not specifically developed for individual plants underneath Hydro Generation
8	Senior Mgmt implement a system of annual winter preparation meetings, training exercises, or both to share best practices and lessons learned across the business operations.	O	0.75	1	These happen as part of regular close out meetings when completing the maintenance program at our various facilities.
9	Senior Mgmt obtain and share insights learned from other jurisdictions.	S	0.5	1	

10	Plant/Facility/Region Management develop a winter readiness preparation procedure. Appoint a person responsible for keeping the procedure updated with company/industry best practices and lessons learned.	S	0.5	1	Some elements in place, not consolidated into one program. Primary accountability for readiness is with defined Asset Owner and Operations Manager.
11	Plant/Facility/Region Management ensure winter readiness preparation procedures includes processes, staffing, plans, timelines that direct key activities before, during and after the winter readiness period.	O	0.75	1	Roles and responsibilities consider year round operations.
12	Plant/Facility/Region Management ensure execution of the winter readiness procedure.	O	0.75	1	Completion of maintenance programs and operational checks is organized and executed with points of control. The various elements have not been pulled together into a specific winter readiness program.
13	Plant/Facility/Region Management conduct a winter readiness review prior to winter readiness period and prior to an anticipated severe winter event.	S	0.5	1	
14	Plant/Facility/Region Management conduct a post winter period review of the effectiveness of the winter readiness preparation procedure and incorporate lessons learned.	S	0.5	1	
15	Plant/Facility/Region Management encourage plant/facility/region staff to identify equipment/processes at risk due to extreme winter conditions and opportunities to improve readiness and response.	O	0.75	1	
			6.25	10	Management Roles & Expectations
		Percent	63%		

III. Processes and Procedures

16	Review Work Management System to ensure annual PM work orders exist that address winter readiness requirements, including severe winter weather	A	1	1	
17	Ensure that all winter readiness associated PM work orders have been completed prior to the onset of the winter season	O	0.75	1	
18	Review Work Management System to ensure open corrective maintenance work orders that could affect plant operation or reliability in severe or extreme weather in winter period.	O	0.75	1	
19	Ensure that open corrective maintenance work orders that could affect plant operation or reliability in winter period are completed prior to the onset of winter readiness period.	O	0.75	1	
20	Review Capital and Operating Projects that could affect plant operation or reliability in winter readiness period.	A	1	1	
21	Ensure that Capital and Operating Projects that could affect plant operation or reliability in winter period are completed or placed in a suitable condition prior to the onset of winter readiness period.	A	1	1	

22	Identify all critical site specific equipment and systems that could experience cold weather operational issues that could: i) initiate an automatic trip; ii) affect a unit start-up; iii) initiate auto runback processes and/or initiate outages; iv) result in unit damage; v) impact environmental performance/controls causing a full/partial outage; vi) negatively impact water or fuel flow to units; vii) cause slowed or impaired field devices; and/or viii) result in a weather related safety hazard.	O	0.75	1	
23	Prior to the onset of winter readiness period review the plant/facility design and configuration and identify potential winter and sever winter problem areas based on previous experience of units and similar facilities and plans to mitigate same.	O	0.75	1	
24	Prior to the onset of winter readiness period implements plans to mitigate potential winter and severe winter problem areas.	A	1	1	
25	Evaluate risks associated with emergency systems - emergency generators, black start generators, DC/UPS power systems, fire systems to ensure that they adequately can address critical backup needs if and when needed.	S	0.5	1	Some work has been done as part of asset criticality evaluation, this work continues.
26	Complete Planning & Scheduling Self-Assessment as it relates to work required for Winter Readiness	A	1	1	
Category Score			9.25	11	Processes and Procedures
Percent			84%		

IV. Testing					
27	Prior to the onset of winter readiness period identify and ensure that plant/facility potential winter and severe winter problem areas that should be tested (i.e. PM transformer tests) are completed.	A	1	1	
28	Prior to the onset of winter readiness period identify and ensure that plant/facility low frequency tasks that are potential winter and severe winter problem areas have been exercised tested.	A	1	1	
29	Prior to the onset of winter readiness period identify and ensure that plant/facility low frequency emergency and back-up facilities (i.e. emergency diesels, black start generators, fire systems) that are potential winter and sever winter problem areas have been exercised and/or tested.	A	1	1	
Category Score			3	3	Testing
Percent			100%		

V. Training					
30	Undertake annual training in winter readiness specific and plant/facility/region specific awareness and maintenance training, including: i) specific protection panel alarms; ii) extreme winter troubleshooting and repair; iii) identification of extreme winter affected plant/facility/region systems and equipment; iv) reviews of special inspections and checks; v) fuel and air specific issues where applicable; vi) extreme winter protection systems design awareness; and vii) lessons learned from previous experiences or from others.	O	0.75	1	

31	Consider an annual winter readiness meeting to highlight preparations and expectations for extreme weather and develop any special plans	O	0.75	1	
32	Review and/or simulate measures for extreme weather scenarios, including instrumentation, readings, alarms, protection and control, plan/facility/region control responses	S	0.5	1	
33	Monitor and log and consider sharing availability data (GADS or comparable) for extreme weather events	O	0.75	1	
Category Score			2.75	4	Training
Percent			69%		

VI. Winter Event Communications

34	Plant/facility/region management communicate before a severe winter weather event with appropriate senior management that the winter readiness extreme weather preparation procedure checklists and readiness reviews have been completed	O	0.75	1	
35	Before and during an extreme winter weather event, plant/facility/region mgmt communicate with ECC to update plant availability, capacity, and other operational limitations with all personnel about changing conditions and potential areas of concern to emphasize awareness of safe and reliable operation.	A	1	1	
36	After a plant/facility/unit/equipment trip or failure to start/close/trip/open due to severe winter weather, plant/facility/region management shall conduct an analysis, develop lessons learned, and identify/incorporate other industry good practices. Continuous improvement feedback to enhance existing winter readiness programs, processes, procedures, checklists, and training. Sharing of technical information, lessons learned, experiences with industry groups.	O	0.75	1	Trips and events are investigated and improvements implemented.
Category Score			2.5	3	Winter Event Communications
Percent			83%		

VII. Program Goals/Metrics

37	Are winter readiness planning / scheduling Key Performance Indicators (KPIs) in place?	S	0.5	1	Supporting metrics such as winter availability are in place
38	Are winter readiness KPIs goals and trends updated regularly, made available on a dashboard, and reviewed with the relevant personnel on a regular basis?	S	0.5	1	
39	Is all winter readiness work completed being captured in JDE (hours completed work orders / available hours)?	O	0.75	1	
40	Is the winter readiness planned work measured (absolute and percent planned work completed / all work completed)?	O	0.75	1	
Category Score			2.5	4	Program Goals/Metrics
Percent			63%		

Notes:

Winter Readiness Scoring Summary

Plant: _____

Audit Date: _____

#	Category	Score	Possible Points	%
1	Safety	4.5	5	90.0%
2	Management Roles & Expectations	6.25	10	62.5%
3	Processes and Procedures	9.25	11	84.1%
4	Testing	3	3	100.0%
5	Training	2.75	4	68.8%
6	Winter Event Communications	2.5	3	83.3%
7	Program Goals/Metrics	2.5	4	62.5%

TOTAL SCORE

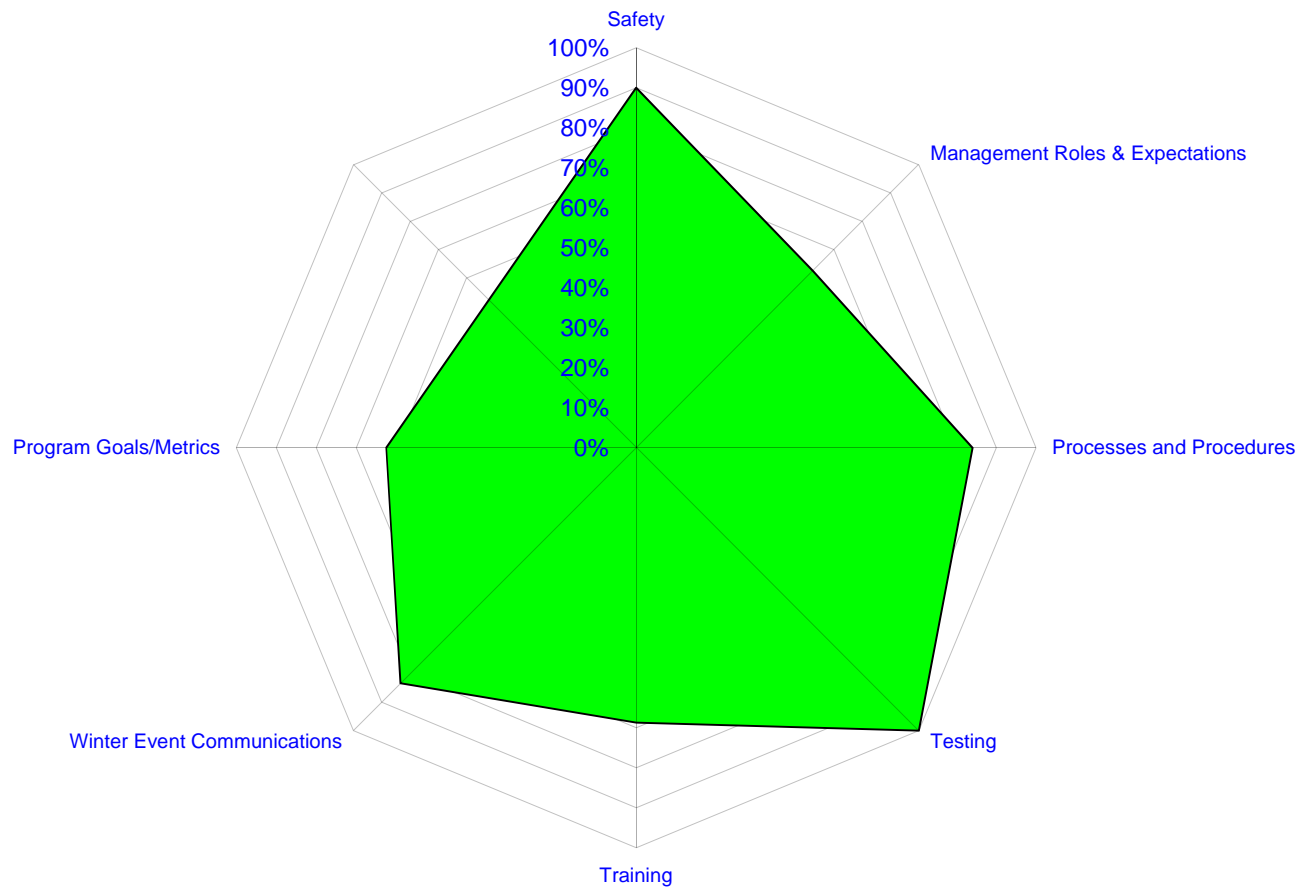
30.75

40

76.9%

Level	Best Practice	Good	Need Improvement
Score Range	>90%	70-89%	<70%

Winter Readiness Spider Diagram



Winter Readiness Self Assessment					
Response Definitions		Code	Points	2014 focus is to identify and improve gaps in the elements ranked as "Sometimes"	
Always - consistently done (95-100% of the time)		A	1		
Often - Majority of the time (75-95% of the time)		O	0.75		
Sometimes - Sometime completed (10-75% of the time)		S	0.5		
N - Not completed (completed less than 10% of the time)		N	0		
NA - Not applicable		NA	0		
Completed By:		Region/Plant:		Holyrood Thermal Generation Station	
Terry Ledrew, Manager Holyrood Thermal Generating Station		Audit Date:		June 30 2014	
#	Best Practice Questions	Answer Code	Points	Possible Points	COMMENTS Improvement Opportunities

I. Safety					
1	Have safe work policies, procedures, practices been developed specific to working in severe or extreme weather conditions?	O	0.75	1	
2	Have personnel equipment and work equipment been acquired specific to allow safe work in severe or extreme weather conditions?	O	0.75	1	
3	Have procedures and measures been identified and enabled as ready to be undertaken to ensure communication and access to emergency services in the event of severe or extreme weather conditions?	O	0.75	1	Radios, cell phones, check-in procedures
4	Have procedures and measures been identified and enabled as ready to be undertaken to ensure sustainable, safe, and effective operations and management in the event of severe or extreme weather conditions?	A	1	1	On call rotation and procedure in place. Emergency response process in place.
5	Are safe work practices, methods, work protection, and permitting as per Maintenance Planning and Scheduling self-assessment being followed?	A	1	1	
Category Score			4.25	5	Safety
Percent			85%		

II. Management Roles & Expectations					
6	Senior Mgmt have set expectations for safety, reliability, and operational performance	A	1	1	
7	Senior Mgmt ensure a winter readiness preparation procedure exists for each facility/plant/region.	O	0.75	1	
8	Senior Mgmt implement a system of annual winter preparation meetings, training exercises, or both to share best practices and lessons learned across the business operations.	S	0.5	1	
9	Senior Mgmt obtain and share insights learned from other jurisdictions.	S	0.5	1	
10	Plant/Facility/Region Management develop a winter readiness preparation procedure. Appoint a person responsible for keeping the procedure updated with company/industry best practices and lessons learned.	S	0.5	1	Not pulled together into a consolidated program. Accountability for readiness is with defined Asset Owner

11	Plant/Facility/Region Management ensure winter readiness preparation procedures includes processes, staffing, plans, timelines that direct key activities before, during and after the winter readiness period.	S	0.5	1	Roles and responsibilities consider year round operations.
12	Plant/Facility/Region Management ensure execution of the winter readiness procedure.	O	0.75	1	
13	Plant/Facility/Region Management conduct a winter readiness review prior to winter readiness period and prior to an anticipated severe winter event.	O	0.75	1	
14	Plant/Facility/Region Management conduct a post winter period review of the effectiveness of the winter readiness preparation procedure and incorporate lessons learned.	S	0.5	1	Normally amongst leadership team, not as a formal meeting
15	Plant/Facility/Region Management encourage plant/facility/region staff to identify equipment/processes at risk due to extreme winter conditions and opportunities to improve readiness and response.	A	1	1	
Percent			6.75	10	Management Roles & Expectations
			68%		

III. Processes and Procedures

16	Review Work Management System to ensure annual PM work orders exist that address winter readiness requirements, including severe winter weather	A	1	1	
17	Ensure that all winter readiness associated PM work orders have been completed prior to the onset of the winter season	A	1	1	
18	Review Work Management System to ensure open corrective maintenance work orders that could affect plant operation or reliability in severe or extreme weather in winter period.	A	1	1	
19	Ensure that open corrective maintenance work orders that could affect plant operation or reliability in winter period are completed prior to the onset of winter readiness period.	A	1	1	
20	Review Capital and Operating Projects that could affect plant operation or reliability in winter readiness period.	A	1	1	
21	Ensure that Capital and Operating Projects that could affect plant operation or reliability in winter period are completed or placed in a suitable condition prior to the onset of winter readiness period.	S	0.5	1	
22	Identify all critical site specific equipment and systems that could experience cold weather operational issues that could: i) initiate an automatic trip; ii) affect a unit start-up; iii) initiate auto runback processes and/or initiate outages; iv) result in unit damage; v) impact environmental performance/controls causing a full/partial outage; vi) negatively impact water or fuel flow to units; vii) cause slowed or impaired field devices; and/or viii) result in a weather related safety hazard.	A	1	1	
23	Prior to the onset of winter readiness period review the plant/facility design and configuration and identify potential winter and sever winter problem areas based on previous experience of units and similar facilities and plans to mitigate same.	A	1	1	

24	Prior to the onset of winter readiness period implements plans to mitigate potential winter and severe winter problem areas.	A	1	1	
25	Evaluate risks associated with emergency systems - emergency generators, black start generators, DC/UPS power systems, fire systems to ensure that they adequately can address critical backup needs if and when needed.	A	1	1	Asset criticality evaluation.
26	Complete Planning & Scheduling Self-Assessment as it relates to work required for Winter Readiness	S	0.5	1	This is first cycle
Category Score			10	11	Processes and Procedures
Percent			91%		

IV. Testing

27	Prior to the onset of winter readiness period identify and ensure that plant/facility potential winter and severe winter problem areas that should be tested (i.e. PM transformer tests) are completed.	A	1	1	
28	Prior to the onset of winter readiness period identify and ensure that plant/facility low frequency tasks that are potential winter and severe winter problem areas have been exercised tested.	A	1	1	
29	Prior to the onset of winter readiness period identify and ensure that plant/facility low frequency emergency and back-up facilities (i.e. emergency diesels, black start generators, fire systems) that are potential winter and severe winter problem areas have been exercised and/or tested.	A	1	1	
Category Score			3	3	Testing
Percent			100%		

V. Training

30	Undertake annual training in winter readiness specific and plant/facility/region specific awareness and maintenance training, including: i) specific protection panel alarms; ii) extreme winter troubleshooting and repair; iii) identification of extreme winter affected plant/facility/region systems and equipment; iv) reviews of special inspections and checks; v) fuel and air specific issues where applicable; vi) extreme winter protection systems design awareness; and vii) lessons learned from previous experiences or from others.	S	0.5	1	
31	Consider an annual winter readiness meeting to highlight preparations and expectations for extreme weather and develop any special plans	A	1	1	
32	Review and/or simulate measures for extreme weather scenarios, including instrumentation, readings, alarms, protection and control, plan/facility/region control responses	S	0.5	1	
33	Monitor and log and consider sharing availability data (GADS or comparable) for extreme weather events	A	1	1	
Category Score			3	4	Training
Percent			75%		

VI. Winter Event Communications					
34	Plant/facility/region management communicate before a severe winter weather event with appropriate senior management that the winter readiness extreme weather preparation procedure checklists and readiness reviews have been completed	A	1	1	
35	Before and during an extreme winter weather event, plant//facility/region mgmt communicate with ECC to update plant availability, capacity, and other operational limitations with all personnel about changing conditions and potential areas of concern to emphasize awareness of safe and reliable operation.	A	1	1	
36	After a plant/facility/unit/equipment trip or failure to start/close/trip/open due to severe winter weather, plant/facility/region management shall conduct an analysis, develop lessons learned, and identify/incorporate other industry good practices. Continuous improvement feedback to enhance existing winter readiness programs, processes, procedures, checklists, and training. Sharing of technical information, lessons learned, experiences with industry groups.	A	1	1	All such incidents are investigated, improvements identified and implemented as necessary.
Category Score			3	3	Winter Event Communications
Percent			100%		

VII. Program Goals/Metrics					
37	Are winter readiness planning / scheduling Key Performance Indicators (KPIs) in place?	A	1	1	Metrics (including winter availability and annual work plan execution) are in place
38	Are winter readiness KPIs goals and trends updated regularly, made available on a dashboard, and reviewed with the relevant personnel on a regular basis?	A	1	1	
39	Is all winter readiness work completed being captured in JDE (hours completed work orders / available hours)?	A	1	1	
40	Is the winter readiness planned work measured (absolute and percent planned work completed / all work completed)?	A	1	1	
Category Score			4	4	Program Goals/Metrics
Percent			100%		

Notes:

Winter Readiness Scoring Summary

Plant: _____

Audit Date: _____

#	Category	Score	Possible Points	%
1	Safety	4.25	5	85.0%
2	Management Roles & Expectations	6.75	10	67.5%
3	Processes and Procedures	10	11	90.9%
4	Testing	3	3	100.0%
5	Training	3	4	75.0%
6	Winter Event Communications	3	3	100.0%
7	Program Goals/Metrics	4	4	100.0%

TOTAL SCORE

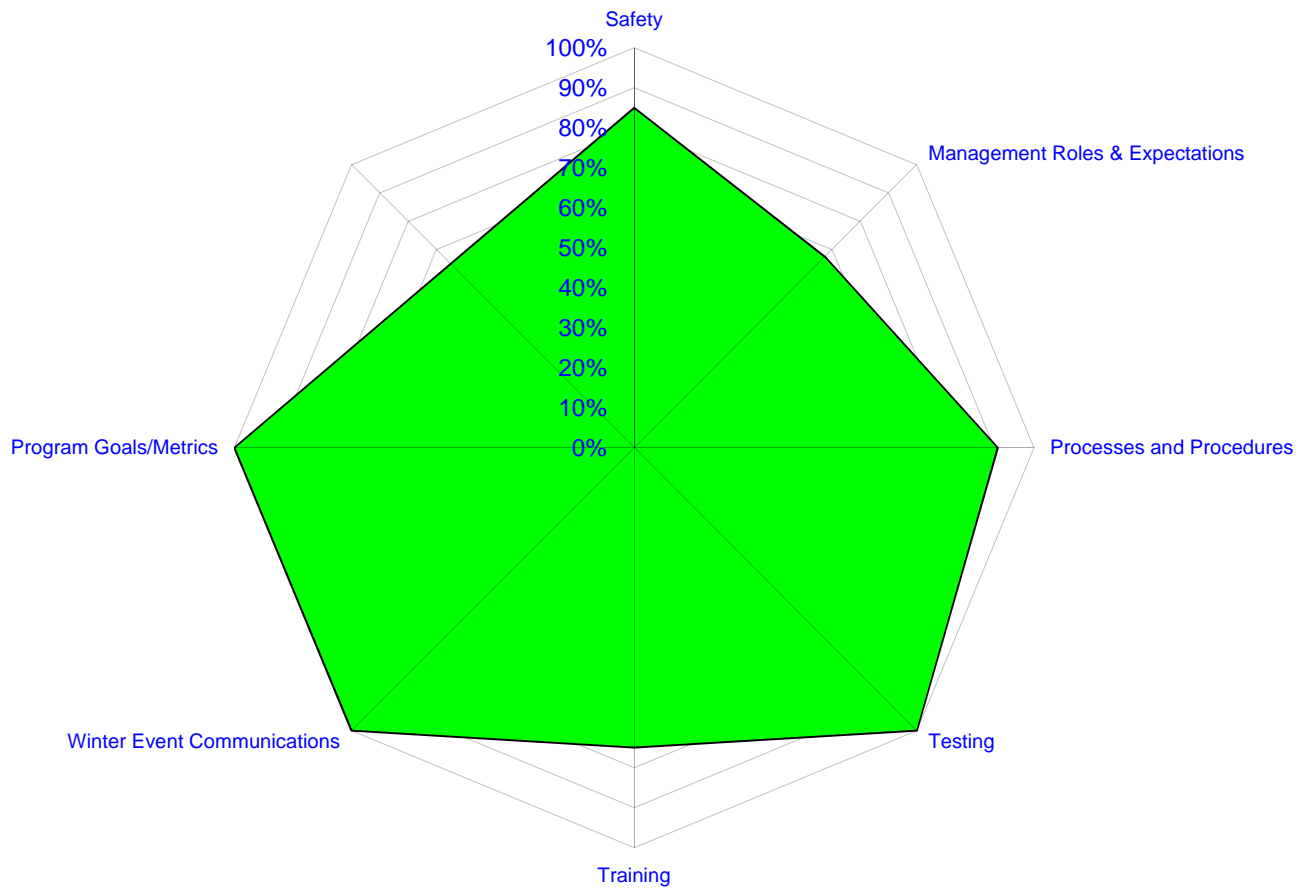
34

40

85.0%

Level	Best Practice	Good	Need Improvement
Score Range	>90%	70-89%	<70%

Winter Readiness Spider Diagram



Winter Readiness Self Assessment					
Response Definitions		Code	Points	2014 focus is to identify and improve gaps in the elements ranked as "Sometimes"	
Always - consistently done (95-100% of the time)		A	1		
Often - Majority of the time (75-95% of the time)		O	0.75		
Sometimes - Sometime completed (10-75% of the time)		S	0.5		
N - Not completed (completed less than 10% of the time)		N	0		
NA - Not applicable		NA	0		
Completed By: Darren Moore, General Manager TRO		Region/Plant:		TRO Central incl. GT's	
		Audit Date:		June 30 2014	
#	Best Practice Questions	Answer Code	Points	Possible Points	COMMENTS Improvement Opportunities

I. Safety					
1	Have safe work policies, procedures, practices been developed specific to working in severe or extreme weather conditions?	A	1	1	Routine for our crews in winter months. Procedures established and evolved over time.
2	Have personnel equipment and work equipment been acquired specific to allow safe work in severe or extreme weather conditions?	A	1	1	Winter clothing and mobile equipment prepared.
3	Have procedures and measures been identified and enabled as ready to be undertaken to ensure communication and access to emergency services in the event of severe or extreme weather conditions?	A	1	1	Radios, check-in procedures and cell phones
4	Have procedures and measures been identified and enabled as ready to be undertaken to ensure sustainable, safe, and effective operations and management in the event of severe or extreme weather conditions?	A	1	1	On call and emergency response plans in place.
5	Are safe work practices, methods, work protection, and permitting as per Maintenance Planning and Scheduling self-assessment being followed?	A	1	1	
Category Score			5	5	Safety
Percent			100%		

II. Management Roles & Expectations					
6	Senior Mgmt have set expectations for safety, reliability, and operational performance	A	1	1	Part of annual planning goals and objectives
7	Senior Mgmt ensure a winter readiness preparation procedure exists for each facility/plant/region.	O	0.75	1	
8	Senior Mgmt implement a system of annual winter preparation meetings, training exercises, or both to share best practices and lessons learned across the business operations.	O	0.75	1	
9	Senior Mgmt obtain and share insights learned from other jurisdictions.	A	1	1	
10	Plant/Facility/Region Management develop a winter readiness preparation procedure. Appoint a person responsible for keeping the procedure updated with company/industry best practices and lessons learned.	O	0.75	1	

11	Plant/Facility/Region Management ensure winter readiness preparation procedures includes processes, staffing, plans, timelines that direct key activities before, during and after the winter readiness period.	A	1	1	
12	Plant/Facility/Region Management ensure execution of the winter readiness procedure.	O	0.75	1	
13	Plant/Facility/Region Management conduct a winter readiness review prior to winter readiness period and prior to an anticipated severe winter event.	A	1	1	
14	Plant/Facility/Region Management conduct a post winter period review of the effectiveness of the winter readiness preparation procedure and incorporate lessons learned.	S	0.5	1	Need to formalize the process
15	Plant/Facility/Region Management encourage plant/facility/region staff to identify equipment/processes at risk due to extreme winter conditions and opportunities to improve readiness and response.	A	1	1	
		Percent	8.5	10	Management Roles & Expectations
			85%		

III. Processes and Procedures

16	Review Work Management System to ensure annual PM work orders exist that address winter readiness requirements, including severe winter weather	A	1	1	
17	Ensure that all winter readiness associated PM work orders have been completed prior to the onset of the winter season	A	1	1	
18	Review Work Management System to ensure open corrective maintenance work orders that could affect plant operation or reliability in severe or extreme weather in winter period.	O	0.75	1	
19	Ensure that open corrective maintenance work orders that could affect plant operation or reliability in winter period are completed prior to the onset of winter readiness period.	O	0.75	1	
20	Review Capital and Operating Projects that could affect plant operation or reliability in winter readiness period.	O	0.75	1	
21	Ensure that Capital and Operating Projects that could affect plant operation or reliability in winter period are completed or placed in a suitable condition prior to the onset of winter readiness period.	O	0.75	1	
22	Identify all critical site specific equipment and systems that could experience cold weather operational issues that could: i) initiate an automatic trip; ii) affect a unit start-up; iii) initiate auto runback processes and/or initiate outages; iv) result in unit damage; v) impact environmental performance/controls causing a full/partial outage; vi) negatively impact water or fuel flow to units; vii) cause slowed or impaired field devices; and/or viii) result in a weather related safety hazard.	A	1	1	
23	Prior to the onset of winter readiness period review the plant/facility design and configuration and identify potential winter and sever winter problem areas based on previous experience of units and similar facilities and plans to mitigate same.	A	1	1	

24	Prior to the onset of winter readiness period implements plans to mitigate potential winter and severe winter problem areas.	A	1	1	
25	Evaluate risks associated with emergency systems - emergency generators, black start generators, DC/UPS power systems, fire systems to ensure that they adequately can address critical backup needs if and when needed.	O	0.75	1	Asset criticality
26	Complete Planning & Scheduling Self-Assessment as it relates to work required for Winter Readiness	A	1	1	This is first use
		Category Score	9.75	11	Processes and Procedures
		Percent	89%		

IV. Testing

27	Prior to the onset of winter readiness period identify and ensure that plant/facility potential winter and severe winter problem areas that should be tested (i.e. PM transformer tests) are completed.	S	0.5	1	Focus on completion of critical PM's
28	Prior to the onset of winter readiness period identify and ensure that plant/facility low frequency tasks that are potential winter and severe winter problem areas have been exercised tested.	S	0.5	1	Focus on completion of critical inspections and tests
29	Prior to the onset of winter readiness period identify and ensure that plant/facility low frequency emergency and back-up facilities (i.e. emergency diesels, black start generators, fire systems) that are potential winter and severe winter problem areas have been exercised and/or tested.	O	0.75	1	
		Category Score	1.75	3	Testing
		Percent	58%		

V. Training

30	Undertake annual training in winter readiness specific and plant/facility/region specific awareness and maintenance training, including: i) specific protection panel alarms; ii) extreme winter troubleshooting and repair; iii) identification of extreme winter affected plant/facility/region systems and equipment; iv) reviews of special inspections and checks; v) fuel and air specific issues where applicable; vi) extreme winter protection systems design awareness; and vii) lessons learned from previous experiences or from others.	S	0.5	1	
31	Consider an annual winter readiness meeting to highlight preparations and expectations for extreme weather and develop any special plans	O	0.75	1	Meetings held in advance and actions as required
32	Review and/or simulate measures for extreme weather scenarios, including instrumentation, readings, alarms, protection and control, plan/facility/region control responses	O	0.75	1	
33	Monitor and log and consider sharing availability data (GADS or comparable) for extreme weather events	O	0.75	1	ECC monitors and engages
		Category Score	2.75	4	Training
		Percent	69%		

VI. Winter Event Communications					
34	Plant/facility/region management communicate before a severe winter weather event with appropriate senior management that the winter readiness extreme weather preparation procedure checklists and readiness reviews have been completed	A	1	1	
35	Before and during an extreme winter weather event, plant//facility/region mgmt communicate with ECC to update plant availability, capacity, and other operational limitations with all personnel about changing conditions and potential areas of concern to emphasize awareness of safe and reliable operation.	A	1	1	
36	After a plant/facility/unit/equipment trip or failure to start/close/trip/open due to severe winter weather, plant/facility/region management shall conduct an analysis, develop lessons learned, and identify/incorporate other industry good practices. Continuous improvement feedback to enhance existing winter readiness programs, processes, procedures, checklists, and training. Sharing of technical information, lessons learned, experiences with industry groups.	O	0.75	1	Meeting held, not documented in detail
Category Score			2.75	3	Winter Event Communications
Percent			92%		

VII. Program Goals/Metrics					
37	Are winter readiness planning / scheduling Key Performance Indicators (KPIs) in place?	S	0.5	1	Metrics used include winter availability and annual work plan execution
38	Are winter readiness KPIs goals and trends updated regularly, made available on a dashboard, and reviewed with the relevant personnel on a regular basis?	S	0.5	1	
39	Is all winter readiness work completed being captured in JDE (hours completed work orders / available hours)?	A	1	1	
40	Is the winter readiness planned work measured (absolute and percent planned work completed / all work completed)?	A	1	1	
Category Score			3	4	Program Goals/Metrics
Percent			75%		

Notes:

Winter Readiness Scoring Summary

Plant: _____

Audit Date: _____

#	Category	Score	Possible Points	%
1	Safety	5	5	100.0%
2	Management Roles & Expectations	8.5	10	85.0%
3	Processes and Procedures	9.75	11	88.6%
4	Testing	1.75	3	58.3%
5	Training	2.75	4	68.8%
6	Winter Event Communications	2.75	3	91.7%
7	Program Goals/Metrics	3	4	75.0%

TOTAL SCORE	33.5	40	83.8%
--------------------	-------------	-----------	--------------

Level	Best Practice	Good	Need Improvement
Score Range	>90%	70-89%	<70%

Winter Readiness Spider Diagram



