

# **ENVIRONMENTAL MANAGEMENT PROGRAM DESCRIPTIONS**

## **Newfoundland Power Inc.**

### **2008**

#### **Introduction**

Newfoundland Power is the principal distributor of electricity in the Province of Newfoundland and Labrador, serving approx 232,000 customers throughout the island portion of the Province, representing approximately 85 per cent of the Province's electricity customers. The balance of the population is served by the Province's other electric utility, Newfoundland & Labrador Hydro ("Newfoundland Hydro"), a Crown corporation that also serves several larger industrial customers in Newfoundland. Sales to residential customers have consistently generated approximately 60 per cent of the Company's revenue. Approximately 92 per cent of the electricity that Newfoundland Power sells to its customers is purchased from Newfoundland Hydro. The Company generates the remainder of its energy requirements.

Newfoundland Power operates 30 generating plants comprised of 23 small hydro and 7 thermal plants. As many of the plants were constructed when environmental control was minimal, there was little done to implement controls to prevent and/or contain potential spills. The Company also has over 10,000 km of transmission and distribution lines, 130 substations, oil filled electrical equipment and line trucks. Associated with these plants and equipment are various quantities of fluids, which may, on occasion, be accidentally released into the environment. These fluids typically consist of lubricating oil for bearings, glycol for cooling systems, insulating oil for electrical equipment and hydraulic fluid for vehicles. In the case of oil filled electrical equipment rust has been a major casual factor for spills. Also hydraulic failures on line trucks are a significant contributor to spills.

#### **Relevant Newfoundland Power Environmental Policy Commitments**

- Committed to prevention of pollution
- Committed to meeting the requirements of applicable environmental legislation, regulations, and accepted standards of environmental protection.
- Committed to continual improvement in environmental performance.

#### **Summary of 2008 EMS Objectives, Targets and Programmes**

1. Wooden Penstock Removal Program
2. Wicket Gate Bushing Replacement Program
3. Runner Replacement Program
4. Potential Energy Production Increase Study
5. Bearing Oil Cooling System control Enhancement Program
6. Heat Exchanger Enhancement Program
7. PCB Elimination Program
8. Sulphur Hexafluoride (SF<sub>6</sub>) Management Program
9. Mini-Padmout Transformer Accelerated Replacement Program
10. Protected Public Water Supply Area's (PPWSA's) Intranet Application
11. Contractor Web Based Access to Controlled Documentation

## **1. Wooden Penstock Removal Program**

### **Background**

The Company utilizes penstocks to convey water from forebay reservoirs to the hydro plants. In the past, many of these penstocks were constructed using creosote treated wooden staves which over time leached creosote from the wood creating contamination. Leaching continues as long as the wooden penstock is present. As the wooden penstocks deteriorate, the Company has been replacing them with either steel or fiberglass, thus eliminating the source of contamination. With this in mind the following corporate objective was set:

### **Corporate**

Corporate Generation Objective #1

- Eliminate 9 creosote treated wooden penstocks between 2001 and December 31, 2012.

Corporate Generation Target #1

- Complete engineering for a penstock replacement by December 31, 2008.

Subsequent targets will be set annually to coincide with budget preparation and PUB approval. The following department and group objectives and targets are set in order to realize those that were set corporately:

### **Energy Supply Department**

Generation Dept Objective #1

- Replace 9 creosote treated wooden penstocks by December 31, 2012 with either steel or fiberglass.

Generation Dept Target #1

- Complete engineering for a penstock replacement by December 31, 2008.

### **Generation Group**

Generation Group Objective #1

- Complete engineering for a penstock replacement by December 31, 2008.

Generation Group Target #1

- Complete engineering for Rocky Pond penstock replacement (in 2009) by December 31, 2008.

### **Responsibility**

The responsibility for ensuring this program is completed and the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall corporate responsibility for the program rests with the Manager, Civil Engineering – Gary Murray (see Note 1).

The responsibility for design and planning will be Superintendent, Generation Engineering – Gary Humby (see Note 1)

**Resources Required**

Superintendent, Generation Engineering and staff for the design and specification

**Methodology**

Professional engineering principles and practices will be applied. Experience of staff on similar projects will be utilized. Priority of replacement will be based on past inspections.

**Reporting**

Reporting will consist of the Manager submitting quarterly progress reports.

**Note 1**

- Gary Murray replaces Mike Jardine as Manager responsible for Generation.
- Gary Humby replaces Gary Murray as Superintendent, Generation Engineering.

## 2. Wicket Gate Bushing Replacement Program

### Background

Over the years, the Company has experienced a number of petroleum releases from its hydro plants. In some plants, the wicket gate bushing component requires greasing for proper operation of the turbine. Greasing of these bushings can result in the release of petroleum products into the environment. To reduce the number of these greased bushings in the system, the Company has identified plants where the bushings can be replaced with greaseless bushings.

The following objectives and targets were set:

### Corporate

Corporate Generation Object #2

- Minimize the potential for petroleum releases due to greased bushings in 4 hydro plants by 2010.

Corporate Generation Target #2

- Minimize the potential for petroleum releases due to greased bushings in 1 plant by December 31, 2008 (see Note 4).

Subsequent targets will be set annually to coincide with budget preparation. The following department and group objectives and targets are set in order to realize those that were set corporately:

### Energy Supply Department

Generation Dept Objective #2

- Reduce the release of petroleum products due to greased bushings into the environment originating from 4 hydro plants by 2010.

Generation Dept Target #2

- Make improvements to 1 plant by December 31, 2008 (see Note 4).

### Generation Group

Generation Group Objective #2

- Make improvements to 1 plant by December 31, 2008 (see Note 4).

Generation Group Target #2

- Make improvements at Heart's Content by December 31, 2008 (see Note 4).

### Responsibility

The responsibility for ensuring this program is completed and the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall corporate responsibility for the program rests with the Manager, Civil Engineering – Gary Murray (see Note 1).

The responsibility for design and planning will be Superintendent, Generation Operations – Jennifer Williams.

## **Resources Required**

The Superintendent, Generation Operations and Maintenance staff.

## **Methodology**

Professional engineering principles and practices will be applied. Experience of staff on similar projects will be utilized.

## **Reporting**

Reporting will consist of the Manager submitting quarterly progress reports.

### **Note 1**

- Gary Murray replaces Mike Jardine as Manager responsible for Generation.

### **Note 4**

- Objectives and Targets related to Mobile Plant has been deferred until further notice depending on the outcome of Water Use negotiations with the City of St. John's.

### **3. Runner Replacement Program**

#### **Background**

Inefficient use of water at Company hydro plants can require additional Bunker C to be burned at the Holyrood thermal plant. The Company seeks to maintain efficient use of water at its hydro plants. When a turbine runner requires replacement, the Company will seek an optimized design to ensure the most efficient use of water possible.

The following objectives and targets were set:

#### **Corporate**

Corporate Generation Object #3

- Maximize the efficient use of water through installation of optimized runners at Company hydro plants by 2014.

Corporate Generation Target #3

- When turbine runners are replaced, the Company will seek an optimized design to ensure the most efficient use of water at 1 turbine by December 31, 2008.

Subsequent targets will be set annually to coincide with budget preparation. The following department and group objectives and targets are set in order to realize those that were set corporately:

#### **Generation Department**

Generation Department Objective #3

- Replace 5 turbine runners by December 31, 2014.

Generation Department Target #3

- Replace 1 turbine runner by December 31, 2008.

#### **Generation Group**

Generation Objective #3

- Replace a turbine runner at 1 plant by December 31, 2008.

Generation Target #3

- Replace 1 turbine runner with an optimized runner at Heart's Content plant by December 31, 2008.

#### **Responsibility**

The responsibility for ensuring this program is completed and the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall corporate responsibility for the program rests with the Manager of Civil Engineering – Gary Murray (see Note 1).

The responsibility for designing, planning, and implementing the program will be Superintendent, Generation Engineering – Gary Humby (see Note 1).

**Resources Required**

Generation Engineering, Maintenance and Plant staff.

**Methodology**

Professional engineering principles and practices will be applied. Experience of staff on similar projects will be utilized.

**Reporting**

Reporting will consist of the Manager submitting quarterly progress reports.

**Note 1**

- Gary Murray replaces Mike Jardine as Manager responsible for Generation.
- Gary Humby replaces Gary Murray as Superintendent, Generation Engineering.

## **4. Potential Energy Production Increase Study**

### **Background**

Due to the high cost of producing electricity at Holyrood, the Company is seeking ways to increase production at the existing hydro facilities. In 2007, the Company completed a capital upgrade at the Rattling Brook plant that reduced the required amount of bunker 'C' at Holyrood.

There are additional ways to increase production at other plants through improvements to operations, dams, penstocks and turbines. The Company will complete a study to produce a project inventory that results in potential energy increases and also final engineering design for the most feasible projects.

By increasing hydroelectric generation at existing plants based on this study, the requirement for fossil fuel generation will be reduced. This will result in fewer emissions being emitted into the environment.

With this in mind the following objective was set:

### **Energy Supply Department**

Generation Dept Objective #4

- Study and determine potential energy production increases at Company hydro plants by December 31, 2008.

Generation Dept Target #4

- Study and determine potential energy production increases at Company hydro plants by December 31, 2008.

### **Generation Group**

Generation Dept Objective #4

- Study and determine potential energy production increases at Company hydro plants by December 31, 2008.

Generation Dept Target #4

- Study and determine potential energy production increases at Company hydro plants by December 31, 2008.

### **Responsibility**

The responsibility for ensuring this program is completed and the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall corporate responsibility for the program rests with the Manager, Civil Engineering – Gary Murray (see Note 1).

The responsibility for design and planning will be Superintendent, Generation Engineering – Gary Humby (see Note 1).

**Resources Required**

The Superintendent, Generation Engineering and staff for the design and specification portion of the project.

**Methodology**

Professional engineering principles and practices will be applied. Experience of staff on similar projects will be utilized.

**Reporting**

Reporting will consist of the Manager submitting quarterly progress reports.

**Note 1**

- Gary Murray replaces Mike Jardine as Manager responsible for Generation.
- Gary Humby replaces Gary Murray as Superintendent, Generation Engineering.

## 5. Bearing Oil Cooling System Control Enhancement Program

### Background

Over the years, the Company has experienced a number of petroleum releases from its hydro plants. The bulk of these releases originate with the bearing oil-cooling system that utilizes cold water from the penstock passing through a coil (to cool the oil) submersed in the bearing oil pot. If the cooling coil fails, water will fill the bearing pot, raising the oil level and forcing the oil out and resulting in a release. To address the issue, three controls have been identified for implementation.

The first control is the installation of a limit switch. These switches signal when a potential problem exists in the oil filled bearing pot and shuts down the plant if the oil level starts to rise above the normal level in the pot.

Secondly, the original design of the cooling coil utilizes the penstock water pressure, which is normally many times above what is required in the cooling coil. Pressure reduction valves are being used to bring the pressure down in the coils thus placing less stress on the coils.

Thirdly, the coils are being fitted with solenoid valves that actuate when the plant is shut down to stop the flow of water to the coils.

Applicability of one or all improvements will be evaluated on a plant basis.

The following objectives and targets were set:

### Corporate

Corporate Generation Object #5

- Minimize the potential for petroleum releases in hydro plants by 2008.

Corporate Generation Target #5

- Minimize the potential for petroleum releases in 3 plants by December 31, 2008 (see Note 4).

Subsequent targets will be set annually to coincide with budget preparation. The following department and group objectives and targets are set in order to realize those that were set corporately:

### Energy Supply Department

Generation Dept Objective #5

- Reduce the release of petroleum products into the environment originating from power plants by 2008.

Generation Dept Target #5

- Make improvements to 3 plants around oil and oil filled equipment by December 31, 2008 (see Note 4).

## **Generation Group**

### **Generation Group Objective #5**

- Make improvements to 3 plants around oil and oil filled equipment by December 31, 2008 (see Note 4).

### **Generation Group Target #5**

- Make improvements at Hearts Content, Victoria and Pitman's by December 31, 2008 (see Note 4).

## **Responsibility**

The responsibility for ensuring this program is completed and the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall corporate responsibility for the program rests with the Manager Civil Engineering – Gary Murray (see Note 1).

The responsibility for design and planning will be Superintendent, Generation Operations – Jennifer Williams (see Note 1).

## **Resources Required**

The Superintendent, Generation Operations and Maintenance staff.

## **Methodology**

Professional engineering principles and practices will be applied. Experience of staff on similar projects will be utilized.

## **Reporting**

Reporting will consist of the Manager submitting quarterly progress reports.

### **Note 1**

- Gary Murray replaces Mike Jardine as Manager responsible for Generation. Gary Humby replaces Gary Murray as Superintendent, Generation Engineering.

### **Note 4**

- Objectives and Targets related to Mobile Plant has been deferred until further notice depending on the outcome of Water Use negotiations with the City of St. John's.

## **6. Heat Exchanger Enhancement Program**

### **Background**

The Company has experienced some problems with heat exchangers which have resulted in petroleum releases from its hydro plants. These releases occur when heat exchangers fail, typically due to metal fatigue as a result of many years of service. To address this problem the Company will replace the older heat exchangers with newer units and put various controls in place if possible and where required. These controls may include:

- Devices that will cause the hydro plant to trip if the oil level starts to rise above the normal level, signaling there is a potential problem.
- Devices that actuate when the plant is shut down to stop the flow of water to the heat exchanger.

These new heat exchangers and controls are being implemented over time. The following objectives and targets were set:

### **Generation Department**

Generation Department Object #6

- Enhance 12 heat exchanger systems before December 31, 2010.

Generation Department Target #6

- Minimize the potential for petroleum releases due to a Heat Exchanger failure at 1 plant by December 31, 2008.

Subsequent targets will be set annually to coincide with budget preparation. The following department and group objectives and targets are set in order to realize those that were set corporately:

### **Generation Group**

Generation Objective #6

- Make improvements to the heat exchanger system at 1 plant by December 31, 2008.

Generation Target #6

- Replace 1 old heat exchanger with a new stainless steel unit at Tors Cove by December 31, 2008.

### **Responsibility**

The responsibility for ensuring this program is completed and the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall corporate responsibility for the program rests with the Manager, Civil Engineering – Gary Murray (see Note 1).

The responsibility for designing, planning, and implementing the program will be Superintendent, Generation – Jennifer Williams (see Note 1).

**Resources Required**

Generation Engineering, Maintenance and Plant staff.

**Methodology**

Professional engineering principles and practices will be applied. Experience of staff on similar projects will be utilized.

**Reporting**

Reporting will consist of the Manager submitting quarterly progress reports.

**Note 1**

- Gary Murray replaces Mike Jardine as Manager responsible for Generation.
- Gary Humby replaces Gary Murray as Superintendent, Generation Engineering.

## 7. PCB ELIMINATION PROGRAM

### Background

Polychlorinated Biphenyls (PCB's) contaminated oil filled electrical equipment has been an operational issue with the Company for some years. The majority of the PCB problem was the result of cross contamination of mineral oil with PCB's during manufacture. This resulted in equipment manufactured during a certain time frame to have low level PCB - normally found in the range of 50 - 500 mg/kg. From the time that PCB's were recognized as a problem and to present, various initiatives have been deployed to remove PCB contaminated equipment from service. Early in the process, the Company concentrated on the high-risk areas. All oil filled equipment located in sensitive areas was ensured to be non-PCB, then all large pieces of oil filled equipment (volume greater than 1000 litres) were made non-PCB. The remaining contaminated equipment is comprised of pole mounted distribution transformers located in non-sensitive areas and some oil filled equipment in various substations. It is estimated that approximately 4 percent of the remaining older vintage equipment is contaminated.

The Company is determined to have all its oil filled electrical equipment in service non-PCB. With this in mind, the following objectives have been set:

Note: PCB items such as street lighting capacitors, ballasts in florescent lighting fixtures in buildings, bushings, potheads, PT's, CT's, PILC cables, etc will not require testing while in service. These items will be addressed through attrition as they are removed from service.

### Corporate

#### Corporate T&D Objective #7A

- Eliminate all PCB contaminated oil filled distribution equipment in service by year end 2009. To achieve this objective targets have been set for 2008.

#### Corporate T&D Target #7A

- Eliminate PCB contaminated oil filled distribution equipment on 51 feeders by December 31, 2008. Subsequent targets will be set annually to coincide with budget preparation.

#### Corporate T&D Objective #7B

- Eliminate all PCB contaminated oil filled substation equipment in service by 2014. To achieve this objective targets have been set for 2008.

#### Corporate T&D Target #7B

- Eliminate PCB contaminated oil filled substation equipment from 3 substations by December 31, 2008. Subsequent targets will be set annually to coincide with budget preparation.

Based on Corporate T&D Objective and Target #7A, the following have been established.

## **Eastern Region**

### Eastern Region Objective #7A

- Eliminate PCB contaminated oil filled distribution equipment in Eastern Region by December 31, 2009.

### Eastern Region Target #7A

- Make 35 feeders non PCB by the end of 2008.

### **St. John's Area Objective #7A**

- Eliminate PCB contaminated oil filled distribution equipment on 20 feeders by December 31, 2008.

### St. John's Area Target #7A

- Make the following feeders non PCB by the end of 2008:

BCV-02	CHA-03	GDL-04	GOU-03	KBR-04
KBR-06	KBR-09	KBR-10	KEN-03	KEN-04
MOL-01	MOL-02	MOL-04	MOL-05	MOL-06
MOL-08	MOL-09	OXF-01	SLA-02	SLA-03

### **Avalon Area Objective #7A**

- Eliminate PCB contaminated oil filled distribution equipment on 8 feeders by December 31, 2008.

### Avalon Area Target #7A

- Make the following feeders non PCB by the end of 2008:

Whitbourne – NHR-02  
Carbonear – BRB-02 BRB-03 BRB-05 HOL-01 ILC-01  
ILC-02 ISL-01

### **Clareville/Burin Area Objective #7A**

- Eliminate PCB contaminated oil filled distribution equipment on 7 feeders by December 31, 2008.

### Clareville/Burin Area Target #7A

- Make the following feeders non PCB by the end of 2008:

Burin – BLA-01 LLK-03 MSY-02  
Clareville – BVA-03 CLV-03 LET-01 NWB-01

## **Western Region**

### Western Region Objective #7A

- Eliminate PCB contaminated oil filled distribution equipment in Western Region by December 31, 2009.

### Western Region Target #7A

- Make 16 feeders non PCB by the end of 2008.

**Grand Falls/Gander Area Objective #7A**

- Eliminate PCB contaminated oil filled distribution equipment on 8 feeders by December 31, 2008.

**Grand Falls/Gander Area Target #7A**

- Make the following feeders non PCB by the end of 2008:  
Gander – COB-01 COB-03 GAM-01 GBY-03 GPD-01 TRN-02  
Grand Falls – BFS-02 GFS-01

**Corner Brook Area Objective #7A**

- Eliminate PCB contaminated oil filled distribution equipment on 7 feeders by December 31, 2008.

**Corner Brook Area Target #7A**

- Make the following feeders non PCB by the end of 2008:  
DLK-03 HUM-01 HUM-09 MMT-01 PAS-01 WAL-02 WAL-05

**Stephenville Area Objective #7A**

- Eliminate PCB contaminated oil filled distribution equipment on 1 feeder by December 31, 2008.

**Stephenville Area Target #7A**

- Make the following feeder non PCB by the end of 2008:  
GAL-01

Based on Corporate T&D Objective and Target #7B, the following has been established.

**Engineering Department**

**Engineering Department Objective #7B**

- Eliminate PCB contaminated oil filled equipment located in substations by December 31, 2014.

**Engineering Department Target #7B**

- Make 3 substations non PCB by the end of December 31, 2008.

**Substations and Electrical Maintenance Group Objective #7B**

- Eliminate PCB contaminated oil filled equipment in 3 substations by December 31, 2008.

**Substations and Electrical Maintenance Group Target #7B**

- Make the following substations non PCB by the end of 2008:  
Glovertown Fermeuse Mobile

## **Responsibility**

The responsibility for conducting this program and ensuring the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall responsibility for the program rests with the managers involved. These are:

Eastern Region – Mike Jardine  
Western Region – Scott Ainsworth  
Engineering – Sean LaCour

The responsibility for the area objectives and targets rest with the Superintendent of Area Operations and The Superintendent of Substations and Electrical Maintenance. These are as follows:

St. John's – Peter Feehan  
Carbonear/Whitbourne – Doug Chafe  
Clarenville/Burin – Barry Keating (see Note 3)  
Grand Falls/Gander – Bob Daye  
Corner Brook – Carl Bishop  
Stephenville - Roddy Duffy  
Substations and Electrical Maintenance - Rick Spurrell

## **Resources Required**

Technicians, line crews, maintenance men  
Oil filled equipment (transformers, reclosers, etc)

## **Reporting**

Reporting will consist of the managers responsible submitting the names of the distribution feeders or substations completed each quarter.

## **Note 3**

- Barry Keating replaces Eugene Doyle as Superintendent, Regional Operations.

## 8. SULPHUR HEXAFLUORIDE (SF<sub>6</sub>) MANAGEMENT PROGRAM

### Background

Sulphur hexafluoride (SF<sub>6</sub>) is a persistent greenhouse gas. Its Global Warming Potential (GWP) is estimated to be 23,900 Carbon Dioxide (CO<sub>2</sub>) equivalent (over a period of one hundred years). SF<sub>6</sub> is a synthetic gas used as an arc extinguishing and insulating medium in electrical equipment. This gas can at times be released during the operation and maintenance of circuit breakers.

As of year end 2006, the Company had 79 SF<sub>6</sub> circuit breakers in service. The quantity of SF<sub>6</sub> will increase in the future as more SF<sub>6</sub> equipment is added to the system - (there is no functionally equivalent substitute gas currently available to replace SF<sub>6</sub>).

SF<sub>6</sub> releases can be controlled through best management practices such as; SF<sub>6</sub> recovery, reuse and recycling utilizing specialized equipment and SF<sub>6</sub> leaks can be detected using leak detection technologies and minimized by maintaining or replacing the SF<sub>6</sub> insulated equipment.

A number of years ago the Company started to address the SF<sub>6</sub> issue through a number of initiatives such as:

- Purchasing SF<sub>6</sub> Gas Reclaimers to capture SF<sub>6</sub> gas during maintenance which significantly reduces the quantity of SF<sub>6</sub> being released.
- Maintaining SF<sub>6</sub> circuit breakers to include bushing gasket replacement and checks on the integrity of the SF<sub>6</sub> gas containment system.

The Company has an ongoing 10 year regular maintenance cycle for all SF<sub>6</sub> breakers. These breakers were built by various manufactures and are of various vintages. Based on service history it has been determined that the Westinghouse/Siemens breakers which have been in service for some time have a higher potential to release SF<sub>6</sub> gas compared to breakers from other manufacturers. There were 30 of these Westinghouse/Siemens breakers in service as of year end 2006. Over the last several years the Company started to conduct a much more comprehensive overhaul on these particular units, focusing on our most troublesome units. As of year end 2006, 10 of the Westinghouse/Siemens breakers have had major overhauls completed leaving 20 units to be completed in future years.

The Company is determined to continue to ensure that SF<sub>6</sub> gas is managed in an environmentally responsible manner. With this in mind the following objective has been set to proactively impact the possibility of future SF<sub>6</sub> gas release into the environment.



## 9. MINI-PADMOUNT TRANSFORMER ACCELERATED REPLACEMENT PROGRAM

### Background

Spills from mini-padmout transformers have been an operational issue with the Company for a number of years. The problem is due to corrosion deteriorating the structural integrity of the steel casing to an extent where oil is released into the environment. Since this rust occurs underneath the unit it is difficult to identify during a routine inspection. Therefore the Company plans to identify and replace a number of the older units which it believes has the highest risk of a spill. As per the current practice the new replacement units will be constructed of stainless steel rather than the mild steel which was used in the past. This program will be implemented in the St. John's area where the vast majority of the older mini-padmouted transformers are in service. Also, as per the Company's current practice, all new padmouted transformers which are purchased for either replacement or new services will be of stainless steel construction.

#### St. John's Area Objective #9

- Replace 100 mini-padmout transformers in the St. John's area with stainless steel by 2010.

#### St. John's Area Target #9

- Replace 25 mild steel mini-padmout transformers with stainless steel units by December 31, 2008.

Subsequent targets will be set annually to coincide with budget preparation.

#### Stephenville Areas Objective #9

- Replace 7 mini-padmout transformers in the Stephenville Area with stainless steel by 2010.

#### Stephenville Area Target #9

- Replace 2 mild steel mini-padmout transformers with stainless steel units by December 31, 2008.

At the end of each year a review of this program will be conducted to determine if any changes are to be made to the scope of this program.

### Responsibility

The responsibility for conducting this program and ensuring the objectives and targets are met coincides with the levels and functions at which the objectives are set. The overall responsibility for the program rests with the Regional Manager of Eastern Region, Mike Jardine and Regional Manager of Western Region, Scott Ainsworth.

The responsibility for the area objectives and targets rest with the Superintendent of Area Operations for the St. John's Area, Peter Feehan, and the Superintendent of Area Operations for the Stephenville Area, Roddy Duffy.

**Resources Required**

Technicians, line crews, maintenance men  
Stainless steel mini-padmouted transformers

**Reporting**

Reporting will consist of the managers responsible submitting the identification  
Company numbers for all mini-padmout transformers which were replaced each  
quarter.

## **10. Protected Public Water Supply Area's (PPWSA's) Intranet Application**

### **Background**

Eighty-eight per cent of the public water supplies in the province of Newfoundland and Labrador use surface water as their source of drinking water. Access to clean and safe drinking water is essential for overall human health.

Newfoundland Power is committed to minimizing the risk of water quality impairment and the possible impact on public health that may be caused as a result of leaching from new or existing chemically treated poles and timbers.

The current system of identifying PPWSA's is through a hard copy of the Provincial Atlas of PPWSA's which requires updating of revisions. The process does not always ensure timely updating.

As part of the Company's ISO 14001 commitment to continual improvement and the prevention of pollution, Newfoundland Power will implement an intranet application that will further enhance its ability to accurately identify the location of all PPWSA's on the island portion of the province. This application will provide up-to-date data that will be readily available through the Company's Webster Intranet site with a dynamic link to the Provincial Governments Water Resources Management Site.

### **Corporate**

Corporate Objective #10

- Establish an Intranet application utilizing the Company's Intranet Site and data available from the Provincial Governments Water Resources Management Site that will enable individuals to accurately locate all PPWSA's on the island portion of the province.

Corporate Target #10

- To achieve this objective a target has been set for December 31, 2008.

### **Responsibility**

The responsibility for conducting this program and ensuring the objective and target are met will lie with the Manager, Eastern Region – Mike Jardine.

The responsibility for ensuring that the target is met will lie with the Superintendent, Regional Engineering – Trina Troke (see Note 2).

### **Resources Required**

Supervisor, Engineering Services, Draftsperson and Application Analyst

### **Methodology**

Standard work practices will be applied. Experience of staff on similar projects will be utilized.

**Reporting**

Reporting will consist of the Manager responsible submitting the progress on a quarterly basis.

**Note 2**

- Trina Troke replaces Gary Humby as Superintendent, Regional Engineering.

## **11. Contractor Web Based Access to Controlled Documentation**

### **Background**

The availability of the Environmental and Health & Safety Policies and procedures to all contract and service providers is critical for the success of the Company's Environment and Health & Safety Management Systems (EMS and HSMS). Presently, this documentation is provided to all contractors by means of a compact disk medium. Although adequate, this process can cause delays in ensuring accurate and timely information is available.

To enhance this present system of document control, the Company will make available a Web based system where contractors will have access to all environmental control documents by accessing a Newfoundland Power secure site. By accessing this site, contractors will always have the most recent version of documentation available ensuring the most accurate information.

### **Corporate**

Corporate Objective #11

- Establish an Internet site (URL=<https://workingwith.newfoundlandpower.com>) that will give contractors and suppliers access to the latest revision of the environmental policy and procedures.

Corporate Target #11

- To achieve this objective a target has been set for December 31, 2008

### **Responsibility**

The responsibility for conducting this program and ensuring the objective and target are met will lie with the Manager, Information Services – Peter Collins.

The responsibility for ensuring that the target is met will lie with the Director, Infrastructure Services – Sherina Wall.

### **Resources Required**

Application Analyst, Environmental Administrator

### **Methodology**

Standard work practices will be applied. Experience of staff on similar projects will be utilized.

### **Reporting**

Reporting will consist of the Manager responsible submitting the progress on a quarterly basis.