

1 **Q. [Account 323] – In response to CA-NP-088 at page 18 of the Hydro Plant**  
2 **Depreciation Study Inspection Reports 2010, the Company states that in addition to**  
3 **planned capital replacement to major components, it has also undertaken initiatives**  
4 **to extend the life of existing assets. Please specifically identify what retired in age**  
5 **brackets 33.5, 38.5, 45.5, 46.5, and 47.5 years of age for Account 323 as set forth on**  
6 **pages A-12 and A-13 of the Gannett Fleming Study. The response should specifically**  
7 **identify and support why such retirement activity at these given ages are indicative**  
8 **of future expectations, specifically referencing the statement on page 4 of the same**  
9 **Hydro Inspection Report that in 2001 there has been an increased focus on asset**  
10 **management for hydro plant.**

11  
12 **A.** Attachment A includes a detailed listing of the retirements that occurred in Account 323  
13 for the requested age intervals. The attachment also includes notes on the material  
14 retirements since 1999, and references where these specific projects were included and  
15 approved in Newfoundland Power's capital budget applications for the various years.

16  
17 At page 18 of the Hydro Plant Depreciation Study Inspection Reports 2010, the Company  
18 states:

19  
20 *In addition to planned capital replacement of major components, Newfoundland*  
21 *Power has undertaken initiatives to extend the life of its existing assets*

22  
23 *An asset management program was implemented for the generation group to ensure*  
24 *ongoing asset integrity through effective engineering, maintenance, and inspection*  
25 *strategies. The program focuses on preventive and predictive maintenance.*

26  
27 *Some of the predictive maintenance techniques being implemented in the hydroelectric*  
28 *plants are: oil analysis on bearings and governor systems, unit vibration analysis, and*  
29 *generator partial discharge testing. Partial discharge testing, designed to monitor*  
30 *winding insulation deterioration, is useful to predict stator winding failures.*

31  
32 The retirements listed in Attachment A involve assets such as woodstave penstocks,  
33 timber cribs, spillways, surge tanks and foundations. Life extension for these assets  
34 would not be materially impacted by the preventive and predictive maintenance  
35 techniques discussed at page 18 of the Hydro Plant Depreciation Study Inspection  
36 Reports 2010. The predictive maintenance techniques referenced are applicable to assets  
37 such as generators and turbines and not the assets in Account 323.

38  
39 The retirements listed in Attachment A are expected to be indicative of future  
40 expectations. For example, many of the retirements listed in the attachment are for  
41 woodstave penstocks. These assets will have to be monitored for deterioration as they  
42 age and replaced before they experience a catastrophic failure. Of the Company's  
43 penstocks currently in service, approximately 35% (measured by length) are constructed  
44 from woodstaves similar to the penstocks retired in the identified age brackets. Thus, the

- 1 retirements of woodstave penstocks listed in the attachment are indicative of future
- 2 activity for this account.

**Retirements Account 323**

Account Number	Transaction Year	Installation Year	Amount	Age at Begin of Interval	Plant - short name	Plant	Description of Units Retired	Notes
32300	1965	1931	(322,275.00)	33.5	PBK	Pierre's Brook	Retire 8330 lin. Ft. of woodstave pipe 72" dia.	
32300	1986	1952	(20,000.00)	33.5	SCV	Seal Cove	Ret approx. 3000 bands from woodstave pipe	
32300	1999	1960	(4,045.00)	38.5	HCP	Horsechops	Retire wooden enclosure & safety rail	
32300	1997	1958	(10,000.00)	38.5	LBK	Lookout Brook	Retire part cost of penstock	
32300	1990	1951	(197,968.00)	38.5	MOB	Mobile	Retire woodstave penstock and bedding	
32300	1999	1960	(10,338.00)	38.5	MOB	Mobile	Retire heating unit, copper pipe, etc.	
32300	2002	1963	(1,332.00)	38.5	SCV	Seal Cove	Retire additions to woodstave pipe	
32300	1981	1942	(1,500.00)	38.5	WBK	West Brook	Retire timber crib lining in canal	
32300	2000	1954	(407,028.00)	45.5	HCP	Horsechops	Retire 3800' woodstave pipe, foundations, grade prep.	1
32300	1989	1943	(4,075.00)	45.5	LMA	La Manche	Retire Butlers Brook spillway	
32300	2001	1954	(275,565.00)	46.5	CAB	Cape Broyle	Retire woodstave pipe, surge tank, piers & anchors, excavation	2
32300	2001	1954	(9,944.00)	46.5	HCP	Horsechops	Retire heating unit	
32300	2003	1956	(140,000.00)	46.5	LOK	Lockston	Retire penstock	3
32300	2004	1957	(377,505.00)	46.5	NCH	New Chelsea	Retire penstock	4
32300	1971	1924	(51,700.00)	46.5	PHR	Petty Harbour	Retire 805 ft of woodstave pipe	
32300	2007	1960	(9,487.00)	46.5	RBK	Rattling Brook	Retire surge heating, prot for band threads	
32300	1999	1951	(80,709.00)	47.5	MOB	Mobile	Retire surge tank & foundations	
32300	1984	1936	(20,272.00)	47.5	PUN	Port Union	Retire woodstave pipe	
32300	2007	1959	(667,698.00)	47.5	RBK	Rattling Brook	Retire woodstave pipe, riser pipr, cladding	5

**Notes:**

- 1) Horsechops refurbishment included and approved in the 2000 NP Capital Budget Application, see Order No. P.U. 18 (1999 - 2000).
- 2) Cape Broyle refurbishment included and approved in the 2001 NP Capital Budget Application, see Order No. P.U. 17 (2001 - 2002).
- 3) Lockston refurbishment included and approved in the 2003 NP Capital Budget Application, see Order No. P.U. 36 (2002 - 2003).
- 4) New Chelsea refurbishment included and approved in the 2004 NP Capital Budget Application, see Order No. P.U. 35 (2003).
- 5) Rattling Brook Refurbishment included and approved in the 2007 NP Capital Budget Application, see Order No. P.U. 30 (2006).