

# YOUNG MOORE AND HENDERSON, P.A. ATTORNEYS AT LAW

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VIA HAND DELIVERY

June 2, 2011

Honorable Wayne Goodwin Commissioner of Insurance North Carolina Department of Insurance 430 N. Salisbury St. Raleigh, NC 27603-5926

Re:

January 4, 2011 Dwelling Insurance Rate Filing

Revised Filing Pages

Dear Commissioner Goodwin:

Pursuant to Mr. Raymond F. Evans, Jr.'s letter dated May 23, 2011, enclosed please find certain revised pages for the above-referenced filing. In addition to the changes due to the correction described in Mr. Evans' letter, the revised pages include several minor revisions which do not affect the filed rates. The revised pages, which reflect their revision as of this date, are enclosed, and we request that they be inserted into the filing in substitution for the corresponding pages.

We apologize for any inconvenience these revisions may cause. Should you have any questions about this matter, please do not hesitate to contact me.

Sincerely yours,

YOUNG MOORE AND HENDERSON P.A.

By:

Marvin M Snivey Ir

MMS/emo Enclosures

cc: Ms. Sherri L. Hubbard (w/enclosures)

943868/070044-009

# Exhibit RB-1

### NORTH CAROLINA

# DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

# Rate Level Summary

Coverage	Premium Weight	Indicated <u>Change</u>	Filed <u>Change</u>
Fire	\$ 84,664,174	-7.3%	-7.3%
Extended Coverage	\$ 150,823,062	109.3%	36.1% (a)
Total	\$ 235,487,236	67.3%	20.5%

<sup>(</sup>a) Selection of filed rate level change for Extended Coverage is a result of capping as shown on pages C-13 and C-14.

### NORTH CAROLINA

# DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

### FILED TERRITORY RATE LEVEL CHANGES BY CLASS

Territory	FIRE		EXTENDED COVERAGE (b)	
Code (a)	<u>Buildings</u>	<u>Contents</u>	<u>Buildings</u>	<u>Contents</u>
05/07	-16.0%	-21.4%	30.0%	35.6%
05/08	0.0%	-13.0%	28.3%	33.9%
06/08	-7.0%	-13.0%	28.3%	33.9%
32	-9.0%	-14.8%	39.3%	45.3%
34	-0.4%	-6.8%	46.9%	53.2%
36	-4.6%	-10.7%	38.5%	44.5%
38	-7.4%	-13.3%	53.2%	59.7%
39	-3.3%	-9.6%	46.4%	52.7%
41	3.7%	-3.0%	56.2%	62,9%
42/52	-8.8%	-14.7%	34.8%	40.6%
43/48	-15.4%	-20.9%	39.9%	46.0%
43/49	-12.7%	-18.3%	38.9%	44.9%
43/52	-8.8%	-14.7%	34.8%	40.6%
44	7.5%	0.6%	51.9%	58.4%
45	-0.5%	-6.9%	52.1%	58.6%
46	-11.5%	-17.2%	51.2%	57.7%
47	-5.4%	-11.5%	48.2%	54.6%
53	-12.0%	-17.7%	37.5%	43.4%
57	-4.2%	-10.3%	22.7%	28.0%
60	-8.9%	-14.7%	46.9%	53.2%
00	0.070	1 1 15		

<sup>(</sup>a) Territories affected by redefinition (as described in Section F) are listed by both current and revised codes.

<sup>(</sup>b) Selection of filed rate level changes for Extended Coverage is a result of capping as shown on pages C-13 and C-14.

# NORTH CAROLINA DWELLING FIRE AND EXTENDED COVERAGE INSURANCE CURRENT AND REVISED TERRITORY BASE RATES

#### FIRE (A)

Territory	CURF	RENT	REVIS	SED
Code*	Buildings	<u>Contents</u>	<u>Buildings</u>	<u>Contents</u>
05/07	23	8	19	6
05/07	23	8	23	7
06/08	25	8	23	7
32	56	22	51	19
34	55	20	55	19
36	55	20	52	18
38	54	18	50	16
39	43	17	42	15
41	64	22	. 66	21
42/52	39	15	36	13
43/48	39	15	33	12
43/49	39	15	34	12
43/52	39	15	36	13
44	42	17	45	17
45	50	19	50	18
46	50	19	44	16
47	50	19	47	17
53	41	15	36	12
57	48	18	46	16
60	38	15	35	13

# EXTENDED COVERAGE (B)

Territory	CURF	RENT	REVI	SED
Code*	Buildings	Contents	<u>Buildings</u>	Contents
05/07	171	23	222	31
05/08	171	23	219	31
06/08	171	23	219	31
32	25	2	35	3
34	29	2	43	3
36	16	1	22	1
38	14	1	21	2
39	16	1	23	2
41	43	5	67	8
42/52	100	14	135	20
43/48	100	14	140	20
43/49	100	14	139	20
43/52	100	14	135	20
44	24	2	36	3
45	40	4	61	. 6
46	28	2	42	3
47	35	3	. 52	5
53	25	2	34	3
57	21	1	26	1
60	20	2	29	3

<sup>(</sup>A) Base Class is Protection Class 5, Frame Construction; \$15,000 Coverage A, \$6,000 Coverage C.

<sup>(</sup>B) Base Class is Form DP-001; \$15,000 Coverage A, \$6,000 Coverage C.

<sup>\*</sup> Territories affected by redefinition (as described in Section F) are listed by both current and revised codes.

# DWELLING POLICY PROGRAM MANUAL RATE PAGES

# NORTH CAROLINA (32)

# WINDSTORM OR HAIL EXCLUSION – TERRITORIES 07, 08, 48, 49 AND 52 ONLY

Territory 07 B.2. Building Credit Contents Credit	[\$149] [\$20]	204 27
Territory 08  B.2. Building Credit  Contents Credit		
Territory 48  B.2. Building Credit		

Territory 49 B.2. Building Credit Contents Credit	[\$78] <u>122</u> [\$11] <u>17</u>
Territory 52 B.2. Building Credit Contents Credit	[\$78] <u>111</u> [\$11] <u>16</u>

# NORTH CAROLINA DWELLING FIRE CALCULATION OF INDICATED STATEWIDE RATE LEVEL CHANGE

	(1)	(2)	(3)	(4)
	Adjusted	Adjusted	Current	Earned
	Incurred	Incurred Losses	Cost/Amount	House
	Losses (a)	Including LAE (b)	Factor (c)	<u>Years</u>
	22 202 202	25 (27 464	0.040	542,271
2003	33,080,282	35,627,464	0.948 0.925	539,022
2004	31,606,410	34,040,104 38,059,344	0.919	554,597
2005	35,338,295	36,683,233	0.919	565,036
2006 2007	34,060,569 39,662,750	42,716,782	0.942	570,959
2007	39,002,730	42,710,702	U.) TA	3,0,000
	(5)	(6)	(7)	(8)
	Trended	Average	Trended	
	Loss Cost	Rating	Base	
	(2) *(3)*CPF/(4) (d)	Factor (e)	Loss Cost	Weights
2003	64.28	3.547	18.12	0.10
2003	60.28	3.649	16.52	0.15
2005	65.08	3.844	16.93	0.20
2006	61.71	4.040	15.27	0.25
2007	72.73	4.179	17.40	0.30
	(9)	Weighted Trended Ba	se Loss Cost (f)	16.71
	(10)	Credibility (2,771,885	House Years)	1.00
	(11)	Fixed Expense per Po	licy (g)	4.42
	(12)	Loss and Fixed Exper	1 = (9) + (11)	. 21.13
	(13)	Expected Loss and Fi	xed Expense Ratio (h)	0.716
	(14)	Net Base Rate per Pol	licy, (12) / (13)	29.51
	(15)	Compensation for Ass	sessment Risk per Policy (i)	2.30
	(16)	Base Rate Excluding	Deviations, $(14) + (15)$	31.81
	(17)	Deviation (j)		0.038
	(18)	Deviation Amount pe (16) / (1.0 - (17)) - (10	-	1.26
	(19)	Required Base Rate p	per Policy, (16) + (18)	33.07
	(20)	Current Base Rate		35.66
	(21)	Indicated Rate Level	Change, (19) / (20) - 1	-7.3%

#### NORTH CAROLINA

#### **DWELLING FIRE INSURANCE**

### STATEWIDE RATE REVIEW

(a) Incurred losses have been adjusted by the following loss development factors:

Year Ended	Loss Development Factor
12/31/03	1.000
12/31/04	1.000
12/31/05	0.999
12/31/06	0.997
12/31/07	0.990

- (b) The trended loss adjustment expenses have been calculated to be 7.7% of the incurred losses for Fire. This factor is developed on page D-26 and D-29.
- (c) The development of Current Cost/Amount Factors is shown on page D-18.
- (d) The development of the Composite Projection Factor is shown on pages D-19.
- (e) The Average Rating Factor is the ratio of average rate at current manual level and average current base rate.
- (f) The weighted trended loss cost is the sum of the products, by year, of the trended loss costs and the accident year weights.
- (g) The development of fixed expense per policy is shown on page D-29.
- (h) The development of the expected loss and fixed expense ratio is shown on page D-25.
- (i) Compensation for Assessment Risk is the provision for the potential residual market assessment. (See testimony of D. Appel.)
- (j) The anticipated deviation of 3.8% was selected by the North Carolina Rate Bureau. (See page D-33 and testimony of S. Thomas, R. Curry, and D. Appel.)

# NORTH CAROLINA DWELLING EXTENDED COVERAGE CALCULATION OF INDICATED STATEWIDE RATE LEVEL CHANGE

	(1)	(2)	(3)	(4)	(5)
			Losses		
	Non-Modeled	Non-modeled	including LAE	Comment	Earned
	Adjusted	Adjusted	Adjusted for Excess	Current Cost/Amount	House
	Incurred	Excess	= [(1)-(2)] * LAE Excess Factor (c) (d)	Factor (e)	Years
	Losses (a)*	Losses (b)	Excess Factor (c) (u)	1 40101 (0)	
2003	21,064,594	0		0.979	549,223
2004	16,296,123	0		0.940	546,462
2005	16,864,044	0		0.922	554,068
2006	18,555,078	0		0.925	562,984 568,016
2007	21,133,592	0	24,408,834	0.945	300,010
	(6)	(7)	(8)	(9)	
			Trended		
	Trended	Average	Base		
	Loss Cost	Rating	Loss Cost	*** * * .	
	(3) *(4)*CPF/(5) (f)	Factor (g)	<u>(6) / (7)</u>	Weights	
2003	45.41	6.001	7.57	0.20	
2003	33.90	6.162	5.50	0.20	
2005	33.94	6.472	5.24	0.20	
2006	36.87	7.017	5.25	0.20	
2007	42.52	7.367	5.77	0.20	
	(10)	Weighted Trend	ed Base Loss Cost (h)		5.87
	(11)	Credibility (2,78	30,753 House Years)		1.00
	(12)	Modeled Base C	Class Loss Cost (i)		20.18
	(13)	Total Base Class	s Loss Cost,(10) + (12)		26.05
	(14)	Fixed Expense p	per Policy (j)		3.80
	(15)	Loss and Fixed	Expense,(12) + (14)		29.85
	(16)	Expected Loss a	and Fixed Expense Ratio	(k)	0.754
	(17)	Net Base Rate p	er Policy, (15) / (16)		39.59
	(18)	Compensation f	or Assessment Risk per I	Policy (l)	2.21
	(19)	Net Cost of Rei	nsurance Per Policy		31.47
	(20)	Base Rate Exclu	uding Deviations, (17) +	(18) + (19)	73.27
	(21)	Deviation (m)			0.024
	(22)	Deviation Amo	unt per Policy,		1.80
	(22)	(20) / (1.0 - (21)	•		
	(23)	Required Base	Rate per Policy, (20) + (2	22)	75.07
	(24)	Current Base R	ate		35.87
	(25)		Level Change, (23) / (24)	) - 1	109.3%
	(/		_ , , , ,		

<sup>\*</sup> Actual Hurricane losses of \$48,403,352 were removed from 2003, \$12,041,861 were removed from 2004, \$11,887,972 were removed from 2005, and \$2,040,795 were removed from 2006.

#### NORTH CAROLINA

### DWELLING EXTENDED COVERAGE INSURANCE

#### STATEWIDE RATE REVIEW

(a) Incurred losses excluding hurricane have been adjusted by the following loss development factors:

Year Ended	Loss Development Factor
12/31/03	1.002
12/31/04	1.005
12/31/05	1.008
12/31/06	1.018
12/31/07	1.036

- (b) Excess losses are calculated on page D-31.
- (c) The trended loss adjustment expenses have been calculated to be 11.7% of the incurred losses for Extended Coverage. This factor is developed on pages D-28 and D-29.
- (d) The excess factor is calculated on page D-30.
- (e) The development of Current Cost/Amount Factors is shown on page D-21.
- (f) The development of the Composite Projection Factor is shown on pages D-22.
- (g) The Average Rating Factor is the ratio of average rate at current manual level and average current base rate.
- (h) The weighted trended loss cost is the sum of the products, by year, of the trended loss costs and the accident year weights.
- (i) The modeled hurricane base class loss cost is calculated by dividing modeled losses of \$76,404,513 by the product of latest year earned house years and average rating factor, and is then adjusted for trend and LAE. Modeled losses are developed by AIR Worldwide based on the distribution of latest year exposures. These losses are shown on page D-32.
- (j) The development of fixed expense per policy is shown on page D-29.
- (k) The development of the expected loss and fixed expense ratio is shown on page D-27.
- (l) Compensation for Assessment Risk is the provision for the potential residual market assessment. (See testimony of D. Appel.)
- (m) The anticipated deviation of 2.4% was selected by the North Carolina Rate Bureau. (See page D-33 and the testimony of S. Thomas, R. Curry, and D. Appel.)

# NORTH CAROLINA DWELLING FIRE CALCULATION OF INDICATED BUILDINGS/CONTENTS CLASS CHANGES

	(1) Trended	(2)	(3) Trended	(4)	(5)
	Adjusted	Five	Average	Base	
	Incurred	Year	Rating	Loss Cost	
<u>Class</u>	Losses	House Years	<u>Factor</u>	(1)/[(2)*(3)]	Credibility
Buildings	200,903,680	1,952,336	5.313	19.37	1.00
Contents	12,545,679	819,549	2.401	6.38	1.00
Total	213,449,359	2,771,885	4.932	15.61	
	(6)	(7)	(8)	(9) Expected	(10)
	Credibility	Indicated	Current	Loss and	Indicated
	Weighted	Base	Base	Fixed Expense	Net Base
<u>Class</u>	Loss Cost	Loss Cost (a)	Rate	<u>Ratio</u>	Rate (b)
Buildings	19.37	20.73	43.97	0.716	36.57
Contents	6.38	6.83	15.88	0.716	12.29
Total	15.61	16.71	35.66	0.716	29.51
	(11)	(12) Base Rate	(13)	(14) Deviation	(15)
	Compensation for	Excluding		Amount	Required
	Assessment Risk	Deviations		(12) / [1.0 -	Base Rate
<u>Class</u>	Per Policy	(10) + (11)	<u>Deviation</u>	(13)] -(12)	(12) + (14)
Buildings	2.84	39.41	0.038	1.56	40.97
Contents	1.03	13.32	0.038	0.53	13.85
Total	2.30	31.81	0.038	1.26	
	(16)	(17) Indicated			
	Indicated	Rate Change			
	Base Rate	Balanced to			
	Change	Statewide			
<u>Class</u>	<u>(15) / (8) - 1</u>	<u>Level (c)</u>			
Buildings	-6.8%	-6.9%			
Contents	-12.8%	-12.9%			
Total	-7.2%	-7.3%			

Note: (a). Column (7) = (6) row / (6) total \* Statewide Indication page column (9).

<sup>(</sup>b). Column (10) = [(7) + (8) \* Trended fixed expense ratio] / (9). Trended fixed expense ratio is shown on page D-29.

<sup>(</sup>c). Column (17) = [1 + (16)] / [1 + (16) total] \* (1 + Statewide indicated rate level change) - 1

# NORTH CAROLINA DWELLING EXTENDED COVERAGE CALCULATION OF INDICATED BUILDINGS/CONTENTS CLASS CHANGES

	(1)	(2)	(3)	(4)	(5)
	Trended Adjusted	•	Trended		
	Incurred	Five	Average	Base	
	Non-Modeled	Year	Rating	Loss Cost	
Class	Losses	House Years	<u>Factor</u>	=(1)/[(2)*(3)]	<u>Credibility</u>
Buildings	113,078,176	1,950,877	8.699	6.66	1.00
Contents	2,802,692	829,876	3.160	1.07	1.00
Total	115,880,868	2,780,753	8.318	5.01	
	(6)	(7)	(8)	(9)	(10)
	Credibility	Modeled		Indicated	Current
C1	Weighted	Base	Total	Base	Base
Class	Loss Cost	Loss Cost	Loss Cost	Loss Cost (a)	<u>Rate</u>
Buildings	6.66	24.08	30.74	34.70	47.72
Contents	1.07	4.36	5.43	6.13	8.02
Total	5.01	18.07	23.08	26.05	35.87
	(11) Expected	(12)	(13)	(14)	(15) Base Rate
	Loss and	Indicated	Compensation for	Net Cost of	Excluding
	Fixed Expense	Net Base	Assessment Risk	Reinsurance	Deviations
<u>Class</u>	<u>Ratio</u>	Rate (b)	Per Policy	Per Policy	(12)+(13)+(14)
Buildings	0.754	52.73	2.94	41.93	97.60
Contents	0.754	9.26	0.49	7.36	17.11
Total	0.754	39.59	2.21	31.47	73.27
	(16)	(17)	(18)	(19)	(20) Indicated
		Deviation		Indicated	Rate Change
		Amount	Required	Base Rate	Balanced to
		(10) / [1.0 -	Base Rate	Change	Statewide
<u>Class</u>	<u>Deviation</u>	<u>(11)] -(10)</u>	(10) + (12)	(13)/(8)-1	Level (c)
Buildings	0.024	2.40	100.00	109.6%	109.1%
Buildings Contents	0.024 0.024	2.40 0.42	100.00 17.53	109.6% 118.6%	109.1% 118.1%

Note: (a). Column (9) = (8) row / (8) total \* Statewide Indication page column (13).

<sup>(</sup>b). Column (12) = [(9) + (10) \* Trended fixed expense ratio] / (11). Trended fixed expense ratio is shown on page D-29.

<sup>(</sup>c). Column (20) = [1 + (19)] / [1 + (19) total] \* (1 + Statewide indicated rate level change) - 1

# NORTH CAROLINA DWELLING FIRE CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES

	(1) Latest Year	(2)	(3)	(4)	(5)	(6)	(7) Indicated	(8) Indicated	(9)	(10) Trended
	Earned		Five Year			Credibility	Statewide	Base	Trended	Loss and
	Premium	Current	Experience	Five Year		Weighted	Base	Loss Cost	Gen./O.A	Fixed
	at Current	Average	Base	House		Base	Loss	Terr (6) /	Expense	<u>Expense</u>
Territory	Level	Base Rate	Loss Cost	Years	Credibility	Loss Cost (a)	Cost	SW (6) * (7)	<u>Ratio</u>	(8) + (9) * (2)
7	4,374,141	15.98	5.28	124,600	0.40	6.48	16.71	6.70	0.110	8.46
8	3,462,264	16.80	6.36	141,809	0.50	7.01	16.71	7.25	0.160	9.94
32	3,248,498	46.95	22.25	82,931	0.40	21.74	16.71	22.48	0.099	27.13
34	3,011,177	45.41	25.07	104,269	0.40	22.45	16.71	23.21	0.125	28.89
36	2,770,489	47.43	24.14	81,533	0.40	22.63	16.71	23.40	0.115	28.85
38	3,605,679	45.16	22.37	87,182	0.40	21.30	16.71	22.02	0.101	26.58
39	3,698,173	38.15	20.61	106,567	0.40	18.68	16.71	19.32	0.110	23.52
41	4,120,529	47.82	28.57	138,777	0.50	25.19	16.71	26.05	0.120	31.79
44	878,474	34.33	22.80	41,095	0.20	17.08	16.71	17.66	0.176	23.70
45	5,372,752	40.53	20.51	190,718	0.60	19.70	16.71	20.37	0.133	25.76
46	2,270,360	41.79	17.45	59,151	0.30	18.57	16.71	19.20	0.101	23.42
47	7,633,125	41.29	19.22	262,387	0.70	19.10	16.71	19.75	0.124	24.87
48	977,959	30.94	10.42	30,814	0.50	12.26	16.71	12.68	0.124	16.52
49	3,015,531	30.94	10.42	109,125	0.50	12.26	16.71	12.68	0.143	17.10
52	6,565,548	30.55	11.85	264,314	0.70	12.48	16.71	12.90	0.157	17.70
53	3,576,573	34.23	13.82	102,208	0.40	14.89	16.71	15.40	0.107	19.06
57	5,442,095	42.07	20.34	189,350	0.60	19.88	16.71	20.56	0.122	25.69
60	20,640,807	32.10	14.16	655,055	1.00	14.16	16.71	14.64	0.122	18.56
									0.104	
Statewide:	84,664,174	35.66	16.26	2,771,885		16.16			0.124	

Note: (a). Column (6) = (5) \* (3) + [1.00 - (5)] \* (3) statewide \* (2) / (2) statewide

# NORTH CAROLINA DWELLING FIRE CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES

Territory	(11) Expected Loss Ratio	(12) Indicated Net Base Rate (10)/(11)	(13) Compensation for Assessment Risk Per Policy	(14) Base Rate Excluding Deviations (12) + (13)	(15)	(16) Dollar Deviation Per Exposure (14) / (1.0 - (15)) - (14)	(17) Indicated Required Base Rate (14) + (16)	(18) Indicated Rate Level Change (17) / (2) - 1	(19) Indicated Rate Level Change Balanced to Statewide Indicated Level (b)	(20) Indicated Buildings Rate Level Change (c)	(21) Indicated Contents Rate Level Change (d)
7	0.716	11.82	1.03	12.85	0.038	0.51	13.36	-16.4%	-16.4%	-16.0%	-21.4%
8	0.716	13.88	1.08	14.96	0.038	0.59	15.55	-7.4%	-7.4%	-7.0%	-13.0%
32	0.716	37.89	3.03	40.92	0.038	1.62	42.54	-9.4%	-9.4%	-9.0%	-14.8%
34	0.716	40.35	2.93	43.28	0.038	1.71	44.99	-0.9%	-0.9%	-0.4%	-6.8%
36	0.716	40.29	3.06	43.35	0.038	1.71	45,06	-5.0%	-5.0%	-4.6%	-10.7%
38	0.716	37.12	2.92	40.04	0.038	1.58	41.62	-7.8%	-7.8%	-7.4%	-13.3%
39	0.716	32.85	2,46	35.31	0.038	1.39	36.70	-3.8%	-3.8%	-3.3%	-9.6%
41	0.716	44,40	3.09	47.49	0.038	1.88	49.37	3.2%	3.2%	3.7%	-3.0%
44	0.716	33,10	2.22	35.32	0.038	1.40	36.72	7.0%	7.0%	7.5%	0.6%
45	0.716	35.98	2.62	38.60	0.038	1,52	40.12	-1.0%	-1.0%	-0.5%	-6.9%
46	0.716	32.71	2.70	35.41	0.038	1.40	36,81	-11.9%	-11.9%	-11.5%	-17.2%
47	0.716	34.73	2.67	37.40	0.038	1.48	38.88	-5.8%	-5.8%	-5.4%	-11.5%
48	0.716	23.07	2.00	25.07	0.038	0.99	26.06	-15.8%	-15.8%	-15.4%	-20.9%
49	0.716	23.88	2.00	25.88	0.038	1.02	26.90	-13.1%	-13.1%	-12.7%	-18.3%
52	0.716	24.72	1.97	26.69	0.038	1.05	27.74	-9.2%	-9.2%	-8.8%	-14.7%
53	0.716	26.62	2.21	28,83	0.038	1.14	29.97	-12.4%	-12.4%	-12.0%	-17.7%
57	0.716	35.88	2.72	38.60	0.038	1.52	40.12	-4.6%	-4.6%	-4.2%	-10.3%
60	0.716	25.92	2.07	27.99	0.038	1.11	29.10	-9.3%	-9.3%	-8.9%	-14.7%
Statewide:	0.716							-7.3%	-7.3%	-6.9%	-12.9%

Note:

<sup>(</sup>b). Column (19) = [1 + (18)] / [1 + (18) statewide] \* (1 + Statewide indicated rate level change) - 1
(c). Column (20) = [1 + (19)] \* [1 + Class page (17) Buildings] / [1 + Class page (17) total] - 1
(d). Column (21) = [1 + (19)] \* [1 + Class page (17) Contents] / [1 + Class page (17) total] - 1

# NORTH CAROLINA DWELLING EXTENDED COVERAGE CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES

	(1)	(2)	(3) Five Year	(4)	(5)	(6)	(7)	(8)	(9) Indicated	(10) Indicated	(11)	(12) Trended
	Latest Year Earned		Non-Modele			Credibility	Modeled	Total	Statewide	Base	Trended	Loss and
			Experience			Weighted	Hurricane	Base	Base	Loss Cost	Gen./O.A	Fixed
	Premium	Current	Base	House		Base Loss	Base	Loss Cost	Loss	Тегт (8) /	Expense	Expense
	at Current	Average			Cond	Cost (a)	Loss Cost	(6) + (7)	Cost	SW (8) * (9)	Ratio	(10) + (11) * (2)
<u>Terr.</u>	Level	Base Rate	Loss Cost	<u>Years</u>	Cred.	Cusital	LUSS CUST	(0) . (7)	Cost	<u> </u>	<u> </u>	Train in the same of the same
7	35,568,630	101.42	5.44	134,354	0.60	5.31	62.43	67.74	26.05	75.57	0.021	77.70
8	32,480,528	102,33	4.41	155,388	0.60	4.69	77.29	81.98	26.05	91.46	0.027	94.22
32	3,036,490	19.01	5.65	80,707	0.40	5,33	3.30	8.63	26.05	9.63	0.157	12.61
34	3,540,333	21,55	4.28	109,746	0.50	4.70	5.66	10.36	26.05	11.56	0.173	15.29
36	1,671,452	12.89	5.04	77,031	0.40	5.09	1.86	6.95	26.05	7.75	0.271	11.24
38	2,041,368	10.95	5.67	83,221	0.50	5.40	1.69	7.09	26.05	7.91	0.247	10.61
39	2,321,615	13.37	6.45	105,322	0.50	5.79	2.05	7.84	26.05	8.75	0.270	12.36
41	2,861,935	28.41	5.07	138,517	0.60	5.09	14.88	19.97	26.05	22.28	0.266	29.84
44	583,434	17.32	6.45	40,278	0.30	5.52	4.08	9.60	26.05	10.71	0.406	17.74
45	5,126,198	28.96	6.77	187,805	0.70	6.28	11.51	17.79	26.05	19.85	0.220	26,22
46	1,062,403	21.14	3.96	58,459	0.40	4.66	3.67	8.33	26.05	9.29	0.283	15.27
47	6,816,657	26.02	5.12	260,274	0.80	5.12	6.26	11.38	26.05	12.70	0.219	18.40
48	2,646,447	69.88	5.77	32,505	0.70	5.58	37.66	43.24	26.05	48.24	0.075	53.48
49	8,160,309	69.88	5.77	115,113	0.70	5.58	20.54	26.12	26.05	29.14	0.086	35.15
52	22,554,637	68.41	3.54	290,279	0.90	3.70	48.44	52.14	26.05	58.17	0.077	63.44
53	3,411,764	19.08	4.18	99,133	0.50	4.65	3.61	8.26	26.05	9.21	0.171	12.47
57	3,888,285	17.10	5.90	178,550	0.70	5.67	2.33	8.00	26.05	8.92	0.246	13.13
60	13,050,576	15.48	7.60	634,071	1.00	7.60	1.27	8.87	26.05	9.90	0.288	14.36
			£ 10	2 700 752		5,09		23.35			0.107	
Statewide:	150,823,062	35.87	5.12	2,780,753		3.09		23.33			0.107	

Note: (a). Column (6) = (5) \* (3) + [1.00 - (5)] \* (3) statewide

# NORTH CAROLINA DWELLING EXTENDED COVERAGE CALCULATION OF INDICATED TERRITORY RATE LEVEL CHANGES

	(13)	(14)	(15) Compensation	(16)	(17) Base Rate	(18)	(19) Dollar	(20)	(21)	(22) Indicated	(23)	(24)
	Expected	Indicated	for	Net	Excluding		Deviation	Indicated	Indicated	Rate Level	Indicated	Indicated
	Loss and	Net Base	Assessment	Cost of	Deviations		Per Exposure	Required	Rate Level	Change Balanced	Buildings	Contents
	Fixed Expense	Rate	Risk	Reinsurance	(14) + (15)		(17) / (1.0 - (18))	Base Rate	Change	to Statewide	Rate Level	Rate Level
Тепт.	Ratio	(12)/(13)		per Policy	+(16)	Deviation	<u>-(17)</u>	(17) + (19)	(20)/(2)-1	Indicated Level (b)	Change (c)	Change (d)
1011.	1440	1										
7	74.5%	104.30	6,26	101.26	211.82	0.024	5.21	217.03	114.0%	118.7%	118.5%	127.9%
8	74.5%	126,47	6.31	122,79	255.57	0,024	6.28	261.85	155.9%	161.5%	161.3%	172.5%
32	78.5%	16.06	1.17	8.09	25.32	0.024	0.62	25.94	36.5%	39.5%	39.3%	45.3%
34	78,5%	19.48	1.33	9.81	30,62	0.024	0.75	31.37	45.6%	48.8%	48.6%	55.0%
36	81.0%	13.88	0.80	2.39	17.07	0.024	0.42	17.49	35.7%	38.7%	38.5%	44.5%
38	81.0%	13,10	0.68	2.26	16.04	0.024	0.39	16.43	50.0%	53.3%	53.2%	59.7%
39	81.0%	15.26	0.82	2,63	18.71	0.024	0,46	19.17	43.4%	46.5%	46.4%	52.7%
41	78.5%	38.01	1.75	19.15	58.91	0.024	1.45	60.36	112.5%	117.1%	116.9%	126.3%
44	78.5%	22.60	1.07	11.39	35.06	0.024	0.86	35.92	107.4%	111.9%	111.7%	120.8%
45	78.5%	33.40	1.79	16.83	52.02	0.024	1.28	53,30	84.0%	88.1%	87.9%	96.0%
46	78,5%	19.45	1.30	9.80	30.55	0.024	0.75	31.30	48.1%	51.3%	51.2%	57.7%
47	78.5%	23.44	1,61	11.81	36.86	0.024	0.91	37.77	45.2%	48.3%	48.2%	54.6%
48	74.5%	71,79	4,31	69.70	145.80	0.024	3,59	149.39	113.8%	118,5%	118.3%	127.7%
49	74.5%	47.18	4,31	45.81	97.30	0.024	2,39	99.69	42.7%	45.8%	45.7%	51.9%
52	74.5%	85.15	4,22	82,68	172.05	0.024	4.23	176,28	157,7%	163.3%	163.1%	174.4%
53	78.5%	15.89	1.18	8.00	25.07	0.024	0.62	25.69	34.7%	37.6%	37.5%	43.4%
53 57	81.0%	16,21	1.06	2.79	20.06	0.024	0,49	20.55	20.2%	22.8%	22.7%	28.0%
60	81.0%	17.73	0.96	3.05	21.74	0.024	0,53	22.27	43.9%	47.0%	46.9%	53.2%
OU	01,070	11.13	5.50	2.02								
Statewid	e 76.2%								104.8%	109.3%	109.1%	118.1%

<sup>(</sup>b). Column (22) = [1 + (21)] / [1 + (21) statewide] \* (1 + Statewide indicated rate level change) - 1(c). Column (23) = [1 + (22)] \* [1 + Class page (20) Buildings] / [1 + Class page (20) total] - 1(d). Column (24) = [1 + (22)] \* [1 + Class page (20) Contents] / [1 + Class page (20) total] - 1Note:

# NORTH CAROLINA

# DWELLING EXTENDED COVERAGE INSURANCE

# DERIVATION OF WIND EXCLUSION CREDITS

The following displays the variables described above and the indicated credit, C:

	-											
ry 52	Contents	\$34.79	\$38	0.055	0.255	1.012	0.367	0.323	0.052	\$36.67	\$0.86	0.024
Territo	Buildings Contents							0.321				
y 49	Contents	\$18.70	\$21	0.059	0.255	1.012	0.367	0.319	0.103	\$19.89	\$0.86	0.024
Territor	Buildings Contents	\$128.50	\$146	0.062	0.255	1.012	0.367	0.316	0.088	\$135.95	\$6.17	0.024
y 48	Contents	\$29.02	\$32	0.051	0.255	1.012	0.367	0.327	0.053	\$30.26	\$0.86	0.024
Territor	Buildings Contents	\$197.92	\$218	0.054	0.255	1.012	0.367	0.324	0.053	\$206.86	\$6.17	0.024
× 08	Contents											0.024
Territor	Buildings Contents	\$426.56	\$447	0.021	0.255	1.012	0.367	0.357	0.037	\$425.55	\$10.55	0.024
, 07	Contents	\$48.44	\$55	0.015	0.255	1.012	0.367	0.363	0.114	\$49.77	\$1.42	0.024
Territory 07	Buildings	\$355.97	\$374	0.016	0.255	1 012	0.367	0.362	0.054	\$354.10	\$10.55	0.024
		c	) _	. u	- >	<b>-</b> Ω	<u>.</u> .		י נ	J	_ a	α Δ

The following calculation adjusts the indicated credit to reflect the filed rate.

	Territory 07	ory 07	Territo	rry 08	Territo	Territory 48	Territo	ry 49	Territo	ory 52
	Buildings	Buildings Contents	Buildings	uildings Contents	Buildings	Contents	Buildings	Conten	Buildings	Contents
(1) Indicated Credit	\$356	\$48	\$427	\$59	\$198	\$29	\$129	0,7	\$239	\$35
(2) Indicated Base Rate	\$374	\$52	\$447	\$63	\$218	\$32	\$146	\$21	\$263	
(3) Indicated Non-Wind Base Rate (2) - (1)	\$18	\$4	\$20	\$3	\$20	\$3	\$17	\$3	\$24	\$\$
(4) Filed Base Rate	\$222	\$31	\$219	\$31	\$140	\$20	\$139	\$20	\$135	\$20
(5) Filed Credit (4) - (3)	\$204	\$27	\$199	\$28	\$120	\$17	\$122	\$17	\$111	\$16

# NORTH CAROLINA DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

# CALCULATION OF COMBINED TERRITORY RATE LEVEL CHANGES

	(1)	(2)	(3)	(4)	(5)	(6)		(7)	(8)
	(-)	<u>Fire</u>	(-)		nded Coverag	<u>e</u>		Comb	oined
									Capped at:
	Latest Year			Latest Year					25%
		Indicated	Selected	Earned	Indicated	Selected		Indicated	Selected
	Earned			Premium	Territory	Territory		Territory	Territory
	Premium	Territory	Territory		Rate Level	Rate Level	•	Rate Level	Rate Level
_	at Current	Rate Level	Rate Level	at Current				Change	Change
Terr.	Level	Change	Change	<u>Level</u>	Change	Change		Change	Change
									0.5.00/
07	4,374,141	-16.4%	-16.4%	35,568,630	118.7%	30.1%		103.9%	25.0%
80	3,462,264	-7.4%	-7.4%	32,480,528	161.5%	28.4%		145.2%	25.0%
32	3,248,498	-9.4%	-9.4%	3,036,490	39.5%	39.5%		14.2%	14.2%
34	3,011,177	-0.9%	-0.9%	3,540,333	48.8%	47.0%		26.0%	25.0%
36	2,770,489	-5.0%	-5.0%	1,671,452	38.7%	38.7%		11.5%	11.5%
38	3,605,679	-7.8%	-7.8%	2,041,368	53.3%	53.3%		14.3%	14.3%
39	3,698,173	-3.8%	-3.8%	2,321,615	46.5%	46.5%		15.6%	15.6%
41	4,120,529	3.2%	3.2%	2,861,935	117.1%	56.3%		49.9%	25.0%
44	878,474	7.0%	7.0%	583,434	111.9%	52.0%		48.9%	25.0%
45	5,372,752	-1.0%	-1.0%	5,126,198	88.1%	52.2%		42.5%	25.0%
46	2,270,360	-11.9%	-11.9%	1,062,403	51.3%	51.3%		8.3%	8.3%
47	7,633,125	-5.8%	-5.8%	6,816,657	48.3%	48.3%		19.8%	19.8%
48	977,959	-15.8%		2,646,447	118.5%	40.1%		82.3%	25.0%
49	3,015,531	-13.1%		8,160,309	45.8%	39.1%		29.9%	25.0%
52	6,565,548	-9.2%		22,554,637	163.3%	34.9%		124.4%	25.0%
53	3,576,573	-12.4%		3,411,764	37.6%	37.6%		12.0%	12.0%
57	5,442,095	-4.6%		3,888,285	22.8%	22.8%		6.9%	6.9%
60	20,640,807	-9.3%		13,050,576	47.0%	47.0%		12.5%	12.5%
	0.1.664.7.7.1	<b>5</b> 204	7.204	150 022 062	100 20/	36.1%		67.3%	20,5%
Statewide:	84,664,174	-7.3%	-7.3%	150,823,062	109.3%	30.170		07.370	20.376

#### NORTH CAROLINA

# DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

#### **EXPLANATORY MEMORANDUM**

#### 4. Loss Adjustment Expense

The Dwelling loss adjustment expenses, prior to trend considerations, are determined as an average percentage of the North Carolina incurred losses for calendar accident years 2003-2007 for Fire and Extended Coverage, based on a North Carolina expense call. The average is calculated using the five year period, removing the high and low values, and averaging the remaining three years. See pages D-26 and D-28.

#### 5. Fixed Expense

The fixed expense (general expenses and other acquisition expenses) is determined as an average percentage of North Carolina earned premiums for calendar accident years 2005-2007, based on a North Carolina expense call. See pages D-25 and D-27. The development of fixed expense per policy is shown on page D-29.

#### 6. Loss Trend

Loss Trend is based on two indices; the Boeckh Residential Index and the Modified Consumer Price Index. These indices are averaged (weighted 80% and 20%, respectively) and comprise the Current Cost Index.

The loss trending procedure is accomplished in two steps. In the first step Current Cost Factors are applied to each year's losses. The Current Cost Factors are derived from the external indices and, when applied to a given year's losses, translate these losses to a cost level which represents November 15, 2009. In order to trend losses from November 15, 2009 to one year beyond the assumed effective date of June 1, 2011, a Loss Projection Factor is applied. This projection factor is based on the annual change inherent in the latest twelve quarterly points of the Current Cost Index.

In reviewing the loss trends, the annual rates of change in Dwelling Fire and Extended Coverage pure-premium during the 2003-2007 experience period are higher than the observed annual changes in the external indices. Therefore, to project losses to a 2012 level, a 2% annual trend adjustment was selected for both Dwelling Fire and Extended Coverage by the Property Rating Subcommittee.

Since the external indices necessarily ignore the effect of policy deductibles, a First Dollar procedure to trend from the first dollar of loss is incorporated into the calculation of the Loss Projection Factor.

The procedures described above are displayed on pages D-14, D-15, D-16, D-16a, D-19 and D-22.

#### 7. Expense Trend

The average annual change in expenses is based on the All Items Less Energy Consumer Price Index and the Compensation Cost Index. The expected average annual change in expenses has been selected to be 2.0% by the Property Rating Subcommittee based on analysis and review of these data, which are displayed on pages D-23 to D-24.

# NORTH CAROLINA DWELLING FIRE AND EXTENDED COVERAGE INSURANCE DETERMINATION OF TREND FOR EXPENSES

(1) Annual Change in indices based on exponential curve of best fit for the latest 48 points (or 16 quarters)	All Items Less Energy (A) 2.25%	<u>CCI (B)</u> 2.45%	Combined (C) 2.35%
(2) Annual Change in indices based on exponential curve of best fit for the latest 36 points (or 12 quarters)	2.02%	1.99%	2.00%
(3) Annual Change in indices based on exponential curve of best fit for the latest 24 points (or 8 quarters)	1.41%	1.71%	1.56%
(4) Annual Change in indices based on exponential curve of best fit for the latest 12 points (or 4 quarters)	0.84%	1.71%	1.27%

(5) Selected Annual Change: 2.0%.

Notes: (A) All items less energy CPI index (urban). Source: Bureau of Labor Statistics.

- (B) Total Compensation Cost Index Insurance Carriers, Agent Brokers, and Service. Source: Bureau of Labor Statistics.
- (C) Weighted Average determined as .50 (All items) + .50 (CCI).

## NORTH CAROLINA DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

# CALCULATION OF TRENDED EXPENSE PROVISIONS

(1) Factor to	trend losses based on annu			40.)		
Fire:	( 0.0038 ( 30.5 /	* 1.020	30.5 /	12)	1.118 =	1.222
	( 0.0038 ( 30.5 /	3) (	30.5 /	12)	4 440	1.222
EC:	е	* 1.020		r	1.118 =	1.222
(2) Factor to	trend LAE based on Current		00.1	40.)		
Fire:		( 1.02	83 /	12 )	=	1.147
		(	83 /	12)	=	1.147
EC:	•	1.02			<del></del>	1.147
(3) Factor to	trend premium based on gro	owth in premium	revenue:	40.		
Fire:		( 1.029	24.5 /	12)	1.145 =	1.214
		(	24.5 /	12)	4 400	1 205
EC:		1.028		Î	1.139 =	1.205
(4) Factor to	o trend expense based on Cเ	ırrent Expense Ir	ndex:	40.)		
Fire:		1.02	65 /	12 )	=	1.113
i ii C.	•	(	65 /	12)		4 442
EC:	•	1.02			=	1.113
(5) Trended	l Expenses					
Fire:						
riie.	Trended LAE Factor:	1 + ( 0.082 *		1.222 )	Prints waste	1.077
	Trended GE Ratio: Trended OA Ratio:	0.07 * 0.065 *	1.113 / 1.113 /	1.214 1.214	=	0.064 0.060
	Trended Fixed Expense Ra		0.060	1,22.1	=	0.124
	Statewide Average Current	Base Rate	-		=	35.66 4.42
	Fixed Expense Per Policy					
EC:	Tuesdad I AE Footori	1+( 0.124 *	1.147 /	1.222 )	****	1.117
	Trended LAE Factor: Trended GE Ratio:	0.059 *	1.113 /	1.205	=	0.054
	Trended OA Ratio:	0.056 * atio 0.054 +	1.113 /	1.205	= .	0.052 0.106
	Trended Fixed Expense Ra Statewide Average Current		0.002		****	35.87
	Fixed Expense Per Policy				=	3.80

### NORTH CAROLINA DWELLING FIRE AND EXTENDED COVERAGE INSURANCE

# PAID/INCURRED LOSSES AND ALLOCATED LOSS ADJUSTMENT EXPENSE

#### I. PAID LOSSES

The Rate Bureau is advised by ISO that paid loss and loss adjustment expenses are not available for the experience period of this filing.

### II. INCURRED LOSSES (a)

Year	<u>Fire</u>	Extended Coverage
2003	\$ 33,080,282	\$ 69,467,946
2004	31,606,410	28,337,984
2005	35,338,295	28,752,016
2006	34,060,569	20,595,873
2007	39,662,750	21,133,592

(a) Incurred losses are developed, adjusted to a common deductible of \$250, include actual hurricane losses and do not include loss adjustment expense. These expenses are reflected via a factor. For Fire this factor is 7.7%. For Extended Coverage this factor is 11.7%.

The following provides a description of the derivation of Dwelling Fire and Extended Coverage expense provisions. The underlying expense data are provided by the North Carolina Rate Bureau and are displayed on pages D-25-28.

The filed expense provision methodology makes a distinction between those provisions that require trending and those that do not. For example, since commission and brokerage, and taxes, licenses and fees vary directly with premium, no additional trend is required. In contrast, general expense, other acquisition expense, and loss adjustment expense do not vary directly with premium and are subject to trend.

The provisions for commission and brokerage expenses, 15.0% of written premium for Fire and 12.2% of written premium for Extended Coverage, and the provisions for taxes, licenses, and fees, 2.9% of written premium for Fire and 1.9% of written premium for Extended Coverage, are based on the data shown on pages D-25 and D-27 for the years 2005-2007.

Since general expenses and other acquisition expenses are relative to earned premiums and loss adjustment expenses are relative to losses, separate trend factors are required for premiums, losses, and expenses.

General Expense and Other Acquisition Expense - Based on the 2005-2007 experience on pages D-25 and D-27, general expenses average 7.0% of earned premium for Fire and 5.9% of earned premium for Extended Coverage, and other acquisition expenses average 6.5% of earned premium for Fire and 5.6% of earned premium for Extended Coverage. Since these expenses are incurred throughout the twelve-month effective period, both the numerator and denominator of these factors are trended to 12/1/2011 (six months beyond the 6/1/2011 average effective date).

The average date of payment of the 2005-2007 expenses used to calculate the provisions is 7/1/2006. Similarly, the average date of earning of the 2005-2007 premiums is 7/1/2006. Assuming policies are written with an effective period of one year, the average date of writing is therefore six months earlier, or 1/1/2006. The average date of writing of policies under the proposed rates, and the average date of payment of the expenses on these policies, is six months after the assumed effective date of 6/1/2011, or 12/1/2011. Therefore, the expenses in the numerator are projected 65 months (from 7/1/2006 to 12/1/2011) and the premiums in the denominator are projected 71 months (from 1/1/2006 to 12/1/2011).

The trend factor for expenses in the numerator is based on the rates of change inherent in the Consumer Price Index and the Compensation Cost Index, displayed on pages D-23-24. Based on an equal weighting of the rates of change in these two indices, an average annual change of 2.0% was selected. This average annual change is projected 65 months (from 7/1/2006 to 12/1/2011).

To trend the premiums in the denominator, two multiplicative factors are applied: the 2006 Current Amount Factor and the Premium Projection Factor. Those factors are shown on pages D-18-19 and D-21-22.

#### Loss Adjustment Expense

Fire: Based on the 2003-2007 experience shown on page D-26, loss adjustment expense (both allocated and unallocated) average 8.2% of incurred losses. The average date of loss in these data is 7/1/2005. Both the numerator and denominator are trended 83 months, from 7/1/2005 to 6/1/2012 (12 months beyond the average effective date of 6/1/2011).

Extended Coverage: Based on the 2003-2007 experience shown on page D-28, loss adjustment expenses (both allocated and unallocated) average 12.4% of incurred losses. The average date of loss in these data is 7/1/2005. Both the numerator and denominator are trended 83 months, from 7/1/2005 to 6/1/2012 (12 months beyond the average effective date of 6/1/2011).

The trend factor used for expenses in the numerator is determined in a similar way as for general and other acquisition expenses. The 2.0% selected average annual change is projected 83 months for Fire and Extended Coverage (from 7/1/2005 to 6/1/2012).

To trend the losses in the denominator, quantities that are calculated in the loss trend procedure are used. Two factors are applied. The first is the 2005 Current Cost Factor shown on page D-14. The second is the adjusted annual rate of change based on the CCI (page D-15). The adjusted annual rate of change is applied over the 30.5 month period from 11/15/2009 to 6/1/2012.

No alternate expense trend methodology has been considered within the last three years.

# Exhibit RB-3

- and the current amount factor of 1.086 (shown on page D-18). The loss projection factor is combined with the premium projection factor and the trend from first dollar to produce the composite projection factor. This composite projection factor is applied in column 5 in the development of the Trended Loss Cost.
- Q. You mentioned the trend from first dollar. Could you describe what that is and how it is developed and applied?
- The index is a first dollar index. All of the losses Α. have been adjusted to a \$250 deductible level. increases in cost as measured by the current cost index would affect losses below the deductible and cause an increase as losses below the deductible additional For example, a loss of \$1,000 increase above it. subject to a \$250 deductible results in a payment of \$750 to the insured. If there is 10% inflation the \$1,000 loss grows to \$1,100. This results in a payment to the insured of \$850, which is a resulting effective inflation of 13.3%, an incremental trend of 3%. procedure used in the filing is a standard one that The procedure in essence accounts for this effect. converts all the losses to a first dollar basis before To obtain the resulting the trend factor is applied. trended losses, the deductible portion of the trended The trend from first dollar losses are subtracted out. on page D-19 the incremental is as shown resulting from the in the trend factor difference application of our procedure. Using our example from before, and the formula for trend from first dollar on page D-19 results in a trend from first dollar factor of 1 + (((.1) (250))/((1.1)(750))) = 1.03, which matches what was calculated earlier.
- Q. Please refer to column 2 of page C-1. With reference to the column headed "Adjusted Incurred Losses Including LAE," please tell us what the figure \$42,716,782 represents.
- A. These are the losses and loss adjustment expenses associated with claims that occurred in the accident

year ended December 31, 2007. The losses are the sum of the adjusted incurred losses in column 2, adjusted by a trended loss adjustment expense factor of 1.077.

- Q. How is the trended loss adjustment expense factor of 1.077 developed?
- A. Each year the Rate Bureau sends a call to its member companies for expense-related data. These calls showed that loss adjustment expenses for the calendar years December 31, 2003, December 31, 2004, December 31, 2005, December 31, 2006 and December 31, 2007, after dropping the high and low values, averaged 8.2% for the period as shown on page D-26.

This factor of 8.2% must be adjusted for the change in cost levels of the items that go into loss adjustment expenses. These expenses include items like adjuster's salaries, rents and overhead items related to claims settlement. In essence, these items will not change as losses change but rather will vary as general economic trends vary. We adjust the loss adjustment expense factor by taking a ratio of the expense trend to the loss trend on page D-29. This adjustment results in trended loss adjustment factor of 1.077.

- Q. Could you please explain how the expense trend used to adjust the loss adjustment expense factor is developed?
- A. The expense trend used to adjust the loss adjustment expense factor is based on an analysis of the Current Expense Index, which is an index based on a 50/50 weighting of the all items CPI and the Compensation Cost Index for marine, fire and casualty insurance. The data for this index, which were the latest available when the selection was made, are shown on pages D-23 and D-24. Based on an analysis of this data, an annual rate of change of 2.0% was selected by the Property Rating Subcommittee.
- Q. Please explain the development and application of the expense projection factor in adjusting the loss adjustment expense factor?

A. The five year (excluding the high and low values) average loss adjustment expense factor of 8.2% reflects an averaging of the five years 2003, 2004, 2005, 2006 and 2007. As such the factor is representative of the time period corresponding to 2005.

The expense projection factor uses the 2.0% annual rate of change based on an exponential curve of the Current Expense Index. Since the loss adjustment expense ratio is at the cost level corresponding to July 1, 2005, it is necessary to project this cost to the average date of claim for the period which our rates are proposed to be effective, June 1, 2012 (one year beyond our assumed effective date). This calculation is displayed on line (2) on page D-29.

- Q. What other adjustments must be made to the loss adjustment expense factor in order to use it?
- A. The loss adjustment expense factor is determined as the ratio of expenses to losses. Having adjusted the expense portion of the factor in the numerator, we need to adjust the losses in the denominator by the loss trend, to reflect both the current cost factor and the loss projection factor.
- Q. Could you please describe what is being done in Column 3 of page C-1?
- A. In Column 3 the previously described current cost factors and current amount of insurance factors are combined into the current cost/current amount factors. This is done by taking the ratio of the current cost factor to the current amount factor. For example, the current cost/current amount factor of 0.942 for 2007 is the ratio of the 2007 current cost factor of 1.023 to the 2007 current amount factor of 1.086. Through these steps the losses and premiums have been brought to the cost level of November 15, 2009.
- Q. Please describe the development of the current amount factor.

- The current amount factor is calculated, separately for Α. buildings and contents, by taking the ratio of the average policy size relativity for each year to the projected average policy size relativity as of November 15, 2009, the same projection date as is used for the losses in the development of the current cost factor. The average policy size relativity is calculated by taking a weighted average of the policy size relativity curve for each amount of insurance using the exposures for each amount of insurance as weights. By taking the year to the ratio of these relativities for each November 15, 2009 value, we are in effect measuring the percentage growth in the premiums at present rates from year to year caused by changes in amount of insurance. These changes in average amounts of insurance are not based on a consistent set of insureds, since some of the For this growth is due to the addition of new homes. reason, a selection of an annual growth rate of 3% was made by the Property Rating Subcommittee. Since the average relativity differs for buildings and contents and is forecasted separately, the resulting current amount factors for buildings and contents are weighed on a premium distribution to produce a combined current amount factor.
- Q. How is the current amount factor used in the calculation of the indicated rate level change?
- year factor for each current amount Α. denominator in the current cost/current amount factor for that year shown in column 3 of page C-1. premium projection factor is the denominator in the composite projection factor (CPF) used in column 5 of page C-1. The combined effect of these two factors is to bring the average rating factor to the level for the amount of insurance expected to prevail during the period for which these rates are expected to be in use. For example for 2007 the current cost factor is 1.023 and the current amount factor is 1.086. The ratio of these two factors results in a current cost/current amount factor of 0.942 which appears in column 3 on page C-1 in the 2007 row.

- Q. Could you please describe what is being done in column 5 of page C-1?
- Column 5 combines all of the elements in columns 1 Α. through 4. In column 5, the losses and loss adjustment expenses are trended to the cost level expected to prevail during the period in which it is assumed that the policies written at proposed rates will be providing coverage (average date of claim of June 1, 2012). The projected reflect the to vears are also anticipated amounts of insurance for business written As an example between June 1, 2011 and May 31, 2012. the calculation of Column 5 for 2007 is:
- (1) Adjusted Incurred Losses Including LAE (C-1, Col 2)
  42,716,782
- (2) Current Cost/Amount Factor (C-1, Col.3 from page D-18)

  0.942
- (3) Earned House Years (C-1, Col. 4) 570,959
- (4) Composite Projection Factor (D-19, line 18) 1.032
- (5) Trended Loss Cost (C-1, Col. 5) (1)\*(2)\*(4)/(3) 72.73
- Q. Please describe the development of the premium projection factor.
- A. As I mentioned earlier, for each year we have an average policy size relativity that is calculated as a weighted average of each amount of insurance relativity. The premium projection factor is calculated by fitting an exponential curve to the average policy size relativities. This curve is used to develop an annual

- A. Line 9 is the resulting weighted trended base loss cost obtained by applying the accident year weights shown in Column 8 to the trended loss cost for each year shown in Column 7. This weighted trended loss cost is our forecasted base loss cost for policies written during the one-year period after the assumed effective date of June 1, 2011, if there were no change in rate level.
- Q. Could you please explain line 10 on page C-1?
- A. Line 10 is the credibility of the experience based on the number of house years during the 5 year period. The full credibility standard is based on a procedure considering the frequency of claims and the variability of the size of those claims. The procedure is explained in a CAS Proceedings Paper "Credibility of the Pure Premium" by Mayerson, Jones and Bowers. The full credibility standard is based on a normal distribution with a 90% probability of the pure premium being within 10% of the expected value. The full credibility standard for Fire is 500,000 house years and 330,000 house years for Extended Coverage.
- Q. Could you please explain what line 11 entitled "Fixed Expense per Policy" on page C-1 refers to and what it represents?
- Line 11, "Fixed Expense per Policy" refers to the Α. dollars of prospective premiums that general the expenses will be on policies written between June 1, General expenses along with 2011 and May 31, 2012. other acquisition expenses constitute fixed expenses. They are fixed in that they do not vary as a direct For example, the cost function of the premium dollar. equipment, rent and other overhead-type office expenses would be among the items classified as either qeneral expenses or other acquisition expenses. expenses are fixed in the sense that they do not vary directly as a function of premium. Such things as commissions and premium taxes, on the other hand, are examples of expenses that do rise or fall directly with The number shown on line 11 -\$4.42 premium. represents the dollars of general expenses trended to the levels anticipated to prevail during the period from

June 1, 2011 to May 31, 2012 (the average date of which is December 1, 2011) and the projected premiums for business written during the same period. This is appropriate because general expenses are generally incurred at the time a policy is written.

- Q. Could you explain how the figure \$4.42 was derived?
- This derivation of 4.42 is shown on page D-29 in line A. (4), "Factor to trend expense based on Current Expense Index." It starts out with an untrended general expense ratio of .070 that is based on the average of the 2005, 2006 and 2007 general expense ratios. These are shown The average of these represents the on page D-25. average expense ratio corresponding to 2006. In order to trend these to the cost levels anticipated to prevail between June 1, 2011 and May 30, 2012, we project these by using the Current Expense Index described earlier. This is done by projecting the average annual change of +2.0% over the time period from June 30, 2006 (the average date of the experience on which the general expense ratio is based) to December 1, 2011 (the average date of writing under the proposed rates). Since this ratio is relative to premium, we must project the amount of insurance from 2006 levels to the level anticipated on business written between June 1, 2011 and May 31, This is done by using the current amount factor for 2006 of 1.145 and the premium projection factor of 1.06. The result is:

 $\frac{0.07 \times 1.143}{1.145 \times 1.06} = .066.$ 

A similar calculation is show on line 5 on page D-29 for other acquisition expenses.

- Q. What does Line 12 on page C-1 entitled "Loss & Fixed Expenses" show?
- A. Line 12 is a combination of the trended base class loss cost and the trended general expenses and other acquisition expenses. The figure \$21.13 is the dollar amount that is required to cover the portion of the insurance base rate that covers losses, loss adjustment

- Q. Would you explain line 18 on page C-1 entitled "Deviation Amount per Policy"?
- A. Line 18 is the dollar amount of deviation that needs to be in the final rate to ensure that the selected 3.8% deviation percentage is accounted for.
- Q. Would you explain line 19 on page C-1 entitled "Required Base Rate per Policy"?
- A. Line 19 is the required base rate that is needed to ensure that sufficient revenue is collected to cover the losses and expenses that are expected to result from the policies written during the year following the effective date of this filing.
- Q. Would you explain line 20 on page C-1 entitled "Current Base Rate"?
- A. Line 20 is the current base rate for all of the policies written in the most recent year included in the review. This rate assumes that each policyholder is buying only the base coverage.
- Q. Would you explain line 21 on page C-1 entitled "Indicated Rate Level Change"?
- A. Line 21 is the percentage change in the current rates which will be necessary to make the rates adequate for the cost levels that are expected to prevail in the one year period following the effective date of the filing. It is determined by taking the required base rate per policy on line 19 and dividing it by the current base rate from line 20. This results in an indicated rate level change for dwelling fire of -7.3%.
- Q. How are these changes distributed by class?
- A. On page C-5 the calculations of the indicated change for fire buildings and contents classes are shown. Column 1 displays the Trended Adjusted Incurred Losses for each of the two classes buildings and contents. The losses shown are for the latest five years. Column 2 gives the

Five Year House Years total, which is the sum of the exposures by class for the five year period. Column 3 provides the Trended Average Rating Factor. Each year's costs have been trended by using each class's own loss projection factor. current cost factors and a Column 4 gives the Base Loss Cost for each class and This loss cost is obtained by dividing the five year total trended adjusted incurred losses by the five year total house years times the trended average rating Column 5 is the credibility assigned to each factor. based the full credibility experience, on class's standard of 500,000 house years for fire. the Credibility Weighted Loss Cost for each class. complement of credibility for use in this calculation is the Total Base Loss Cost multiplied by the ratio of the class's current base rate to the total current base rate.

The statewide credibility weighted loss cost is obtained by weighting the class credibility weighted loss cost by the individual class house years. Column 7 provides the This Indicated Base Loss Cost by class. the class cost adjusted by loss statewide base relativity indicated by the credibility weighted loss Column 8 shows the Current Base Rate by class. Column 9 displays the Expected Loss and Fixed Expense The Indicated Net Base Rate is shown in column The indicated net base rate is the sum of the loss 10. cost and fixed expenses divided by the expected loss and fixed expense ratio. Column 11 is the Compensation for Column 12 is the Base Rate Assessment Risk Per Policy. Column 14 is a derivation of Excluding Deviations. dollars of deviation that need to be loaded into the Column 15 is the sum of required base rate. indicated net base rate before deviations in column 12 and the deviation amount in column 14. Column 16 shows the Indicated Base Rate Change by class. Column 17 shows the Indicated Rate Change Balanced to Statewide includes the impact rate change This Level. statewide change of -7.3%.

Q. Does the filing contain a revision of the present territory definitions and relativities?

- Q. Are general expenses and other acquisition expenses for extended coverage determined in the same manner as for fire insurance?
- A. Yes.
- Q. Is the loss trend procedure the same for extended coverage as it was for fire insurance?
- A. Yes, it is.
- Q. What is the source of the 31.47 item for net cost of reinsurance in line 19?
- The source of the 31.47 item for net cost of reinsurance Α. is an analysis performed for the Rate Bureau by Dr. In that analysis he determines the net cost of incurred by dwelling extended coverage reinsurance insurers in North Carolina because of the need to buy catastrophe reinsurance. The net cost of reinsurance is the expense and profit component of the reinsurance premium paid by these insurers (the loss component is in the overall rate used in direct losses the More details of the analysis determination). included in Dr. Appel's testimony.

To calculate the net cost of reinsurance per policy, the total dollars of reinsurance is divided by the number of house years for 2007 times the 2007 average rating factor. This quantity is then divided by the expected loss and fixed expense ratio. The actual calculation is:

$$\frac{99,299,003}{568,016 * 7.367 * 0.754} = 31.47$$

Q. Are the remaining portions of the rate level calculation for extended coverage similar to that for fire insurance?

# Exhibit RB-4

derived from the external indices and, when applied to given year's losses, adjust these losses to a cost level as of November 15, 2009 which is the midpoint of the latest quarter of the external index. In order to trend losses from 11/15/09 to the trend date, a Loss Projection Factor is applied. This projection factor is selected based on a review of the annual change inherent in the latest twelve quarterly points of the Current Cost Index, the actual dwelling pure premium trend and Fast Track trend data.

In reviewing the loss trends, the annual rates of change in pure-premium during the 2003-2007 experience period are higher than the observed annual changes in the external indices. Therefore, to project losses to a 2012 level, a 2.0% additional annual trend was selected for both dwelling fire and extended coverage.

Since the external indices necessarily ignore the effect of policy deductibles, a first dollar procedure to trend from the first dollar of loss is also incorporated into the calculation of the Loss Projection Factor.

- Q. Are you familiar with the procedures used to collect the expense experience?
- A. Yes. The Bureau sends a data call to all companies annually. Companies complete the expense call, which includes reporting expense dollars as well as premiums at collected level and adjusted to manual level. The Bureau checks and compiles this information for all companies and sends it to ISO for their use in the rate filing. The Bureau also obtains information appearing in the annual statements and the insurance expense exhibits of the companies. This information is part of the official records maintained at the Department. Data from this information is provided to ISO.
- Q. How were the anticipated expense provisions used in the filing determined?
- A. Commissions and brokerage, taxes, licenses, and fees are a function of premium, and the ratios for these expenses from the North Carolina special calls for expense experience were used. For general and other acquisition expenses, dollar amounts were determined based on the data collected in the Bureau's special calls for expense experience.

The allocated and unallocated loss adjustment expenses are included with losses by use of a factor derived from the Bureau's calls for expense experience. Experience from calendar years 2003-2007 was used. After removing the highest and lowest value, the average of the remaining three years was used. This was done in order to reduce the fluctuation in the ratio due to the variation in incurred losses from year to year.

The Subcommittee reviewed current expense index trends. Based on the review, the Subcommittee selected a 2.0% trend. This factor was then used to trend

## Exhibit RB-13

In order to test the underwriting profit provisions selected and filed by the Rate 6. Bureau, I have estimated the returns insurers would expect to earn from North Carolina dwelling fire and extended coverage insurance assuming the filed underwriting profit provisions are fully earned, and assuming all of the other assumptions embedded in the rate calculations actually materialize. I am aware that North Carolina law provides that insurers are entitled to expect to earn a return equal to the returns of industries of comparable risk, and that in calculating that expected return, investment income from capital and surplus funds is not to be considered. I refer to that operating return as the statutory return. However, as is evident from the attached exhibits, I have estimated insurer pro forma returns both including and excluding expected investment income from capital and surplus. (I refer to the return including investment income on surplus as the total return.) I have done this to demonstrate that, if the filed underwriting profit provisions are actually realized, and even if investment income on surplus is considered, insurer returns will not be excessive. Obviously, if returns are not excessive including investment income from capital and surplus, they will be nonexcessive excluding such income.

Based on my calculations, the selected underwriting profit provisions generate statutory returns on net worth of 7.9% for dwelling fire and 7.1% for dwelling extended coverage in North Carolina. In addition, the total return on net worth (i.e., including investment income on surplus) is 10.8% for dwelling fire and 10.6% for dwelling extended coverage. Since these returns, even those that include investment income on surplus funds, are near or below the lower bound of Dr. Vander Weide's range for the fair rate of return, I conclude that the underwriting profit provisions are clearly not excessive.

#### II. COST OF CAPITAL REVIEW

- Q. You said your first assignment was to review Dr. Vander Weide's estimate of the cost of capital. Are you familiar with Dr. Vander Weide's approach to estimating the cost of capital in insurance rate cases?
- A. Yes. I am aware of the methodology upon which Dr. Vander Weide relies to estimate the cost of capital and have reviewed it on a number of occasions in the course of previous rate cases in North Carolina. Dr. Vander Weide has used the most widely recognized and accepted models for this purpose, namely the Discounted Cash Flow (DCF) model and the risk premium method. These models, when taken together and properly applied to a reasonably selected data set, provide acceptable estimates of the cost of capital for regulated insurers.
- Q. What has Dr. Vander Weide concluded with respect to the fair rate of return in this case?

Given the reinsurance program described above and the AIR loss distributions, I then determined the amount of losses that would be subject to reinsurance coverage, as a share of the total hurricane losses in the state. Based on the projected reinsured losses, I then developed a "competitive market" reinsurance premium, as follows:

- I loaded the reinsured loss for LAE, using the Incurred Loss/Incurred LAE ratio from the filing.
- I assumed that the reinsurer incurred fixed expenses equal to 30% of losses plus LAE (which results in a reinsurer expense provision of 15.5% of premium).
- I assumed the reinsurer set an underwriting profit provision that would yield a return on net worth, after consideration of all investment income, of 12.0%. I determined the reinsurer's net worth such that the reinsurer premium to surplus ratio would be .30, the historical average ratio for professional reinsurers from Best's Aggregates and Averages over the past several years.

Having determined the reinsurance premium that a competitive reinsurance market would produce under the assumptions described above, I then subtracted expected losses and LAE from the premium to leave the net cost of reinsurance. This latter amount was then divided by projected direct written premium to determine the expected net cost of reinsurance as a percent of direct premium, which turned out to be 33.4% (comprised of the reinsurance expense cost of 7.3% and the cost of reinsurer capital of 26.1%). In the next step, that amount was added as an expense in the rates.

- Q. Are the results of your calculations shown in an exhibit?
- A. Yes. Exhibit RB-15 shows the calculations giving rise to the estimated net cost of reinsurance of 33.4%. This exhibit contains two pages; the first page shows the derivation of the statewide premium, part of which is required to determine the reinsurer's premium. The second page shows the derivation of the reinsurance premium, based on the portion of insured hurricane losses and the reinsurer's capitalization and required return. As can be seen in the second page, the reinsurance premium is 47.0% of statewide direct premium, while the net cost of reinsurance is 33.4% of premium. (The net cost of reinsurance is the total premium less the primary insurer's loss and expense recovery, which is equal to the reinsurer's expense cost and the cost of the reinsurer's capital).
- Q. Do you believe that your calculations accurately reflect the net cost of reinsurance in North Carolina?

#### Summary: Reinsurance Costs and Profit by Zone

		Zone 1	Zone 2	Zone 3	Sum
Standard	Underwriting Profit and Contingencies	11.0%	9.8%	7.6%	10.5%
Deviation	Reinsurer Profit (Percent)	27.4%	26.0%	15.9%	26.1%
Method	Reinsurer Expenses (Percent)	8.4%	5.3%	2.0%	7.3%
	Total Profit plus Reinsurance Cost	46.8%	41.1%	25.6%	43.9%
	Underwriting Profit and Contingencies	12.3%	2.8%	1.0%	10.5%
Variance	Reinsurer Profit (Percent)	30.0%	11.0%	2.9%	26.1%
Method	Reinsurer Expenses (Percent)	7.7%	7.6%	2.6%	7.3%
	Total Profit plus Reinsurance Cost	50.0%	21.4%	6.5%	43.9%
Probability	Underwriting Profit and Contingencies	11.2%	9.6%	6.2%	10.5%
of Ruin	Reinsurer Profit (Percent)	28.4%	23.5%	10.1%	26.1%
Method	Reinsurer Expenses (Percent)	8.2%	5.6%	2.2%	7.3%
	Total Profit plus Reinsurance Cost	47.7%	38.6%	18.4%	43.9%

Because each of the aforementioned methods has support in the risk measurement literature, and the results under the various models are reasonably similar, I averaged the per zone total profit and reinsurance cost factors from the three methods. The final values used in the calculations were then selected by the Rate Bureau.

- Q. Have you recommended regional profit differentials in any other lines of insurance when you have testified in North Carolina?
- A. Yes, but only in mobile homeowners and homeowners, since the other lines of insurance subject to the jurisdiction of the Rate Bureau are not subject to such extreme regional variation in risk. In the case of dwelling extended coverage insurance, however, it is important for reasons of equity and economic efficiency to address this question forthrightly.
- Q. Does your methodology result in a higher overall cost than would have been the case without the allocations?

account. Alternatively, the actuary may develop an underwriting profit provision and test that profit provision for consistency with the cost of capital. The actuary may use any appropriate method, as long as such method is consistent with the considerations in this standard.

The procedure utilized by the Rate Bureau is exactly the approach articulated in this section (i.e., "the actuary may develop an underwriting profit provision and test that profit provision for consistency with the cost of capital").

- Q. Could you please clarify how you selected your investment yield rate and premium to surplus ratio?
- A. Yes. To select the investment yield rate, I was asked by the Rate Bureau to compute the average of what are known as the "embedded" and "current" yields, where each was based on the actual asset portfolios insurers currently hold. There has been a long-standing debate regarding the choice between embedded and current yields in insurance profitability calculations. Since the Commissioner himself adopted an approach of averaging the embedded and current yields in his 1994 automobile decision (and in his decision in the 1996 case, he selected a yield which approximated the yield obtained from this approach), the Rate Bureau has chosen to follow that methodology since that time.

To estimate the embedded yield, I calculated the ratio of investment income divided by average invested assets and added to that an estimate of the ten year average ratio of realized capital gains to invested assets. The sum of these two is the estimated embedded yield.

To estimate the current yield, I determined the yields available in today's capital markets for the portfolio of securities currently held by the property-casualty insurance industry. I then calculated a weighted average of these yield rates based on the proportion of assets held by the industry in each of the various securities such as stocks, bonds, real estate and the like.

As far as the premium to surplus ratio is concerned, I also relied on information which reflects the actual degree of leverage for insurers writing dwelling fire and extended coverage insurance in North Carolina. The premium to surplus ratio I used is the ten year average premium to surplus ratio for the top 30 company groups which wrote dwelling fire and extended coverage insurance in North Carolina in each of those years.

- Q. Can you please provide the results of your calculations regarding the projected rate of return to the insurance transaction if your underlying assumptions are realized?
- A. Yes. I estimate that insurers in North Carolina should expect to earn statutory returns on net worth of 7.9% for dwelling fire insurance and 7.1% for dwelling extended coverage insurance in North Carolina. In addition, the total return on net worth (i.e., including

investment income on surplus) is 10.8% for dwelling fire and 10.6% for dwelling extended coverage. While the statutory returns are well below the lower bound of Dr. Vander Weide's range for the cost of capital, the total return falls within (albeit at the lower end of) that range.

- Q. Are there any factors that might impact the realization of these projected returns?
- A. Yes. In order for the aggregate industry to achieve the returns projected in these exhibits, every assumption in the model must be realized exactly. However, even if every other projection in the filing is exactly realized, the industry will still not realize these projected returns because the filing does not reflect the current surplus position of the aggregate industry. For the sake of stability in the ratemaking process, the premium to surplus ratios used in my calculations are based on long term historical data. The most recent data show that the aggregate industry writing dwelling fire and extended coverage insurance in North Carolina has more surplus in relation to premiums that the historical averages used in my calculations. Therefore, even if all other assumptions were realized exactly, the calculated rate of return would overstate the returns the aggregate industry would reasonably expect.

#### VII. CONCLUSION

- Q. Based on the studies and analyses you have performed, have you come to any conclusions regarding the underwriting profit provision, net cost of reinsurance provision and compensation for assessment risk provision that have been filed by the Rate Bureau as part of the filing in this case?
- A. Yes. Based on my evaluation of Dr. Vander Weide's cost of capital estimates, my consideration of insurer specific risk characteristics, and my estimation of projected and expected returns, I believe that the filed underwriting profit provision complies with North Carolina law and that the return expected to be realized by insurers will not be excessive. In addition, based on my analyses of the cost of reinsurance and the required compensation for the risk of Beach/Fair Plan assessments, I believe that my specific estimates of the net cost of reinsurance and the required compensation for assessment risk are both reasonable and not excessive. Finally, assuming that the actuarial estimates in the filing are reasonable, it is my opinion that including the filed underwriting profit provision, net cost of reinsurance provision, and compensation for assessment risk provision will produce rates that are just, reasonable and not excessive, inadequate or unfairly discriminatory.
- Q. Does this conclude your testimony?
- A. Yes, it does.

## NORTH CAROLINA RATING BUREAU EXHIBIT RB-15, Sheet 1

#### Calculation of Reinsurance Cost Statewide Total

_	Total
(1) Expected Value of Net Losses	61,252,351
(2) Expected Value of Ceded Losses	36,330,164
(3) Expected Value of All Losses [(1)+(2)]	97,582,516
(4) Commission and Brokerage	12.20%
(5) Taxes Licenses and Fees	1.90%
(6) Fixed Expenses (Other Acquisition & General)	15,910,670
(7) Reinsurer Expenses plus Cost of Reinsurer Capital	99,299,003
(8) Underwriting Profit (9.5 %) and Contingencies (1.0 %)	10.50%
(9) Loss Adjustment Expense Factor	1.117
(10) Total Indicated Premium [((3) x (9) + (6) + (7)) / (1.0-(4) - (5) -(8))]	297,359,872
(11) Total Indicated Underwriting Profit [Profit from (8) x (10)]	28,249,188
(12) Investment Income on Reserves as a Percentage of Losses & LAE	4.66%
(13) Total Indicated Investment Income on Reserves [(1) x (9) x (12)]	3,190,193
(14) Total Profit excluding Investment Income on Surplus [(11) + (13)]	31,439,381
(15) Premium/Allocated Surplus Ratio	1.14
(16) Total Available Surplus [(10)/(15)]	261,424,028
(17) Available for Allocation [(14) + (16)]	292,863,409

#### Notes:

- 1. (1)-(3) From Simulation
- 2. (4)-(6), (8), (9) from ISO
- 3. (7) See Exhibit RB-15, Sheet 2
- 4. (12), (15) Milliman Analysis

### NORTH CAROLINA RATING BUREAU EXHIBIT RB-15, Sheet 2

#### Calculation of Reinsurance Cost Statewide Total

	Total
(1) Hurricane Losses	104,436,689
(2) Loss Adjustment Expense Factor	1.117
(3) Hurricane Losses and Loss Expenses	116,655,782
(1) x (2)	
(4) Percent Reinsured	0.434
(5) Reinsured Losses and Loss Expenses [(3) x (4)]	50,594,756
a. Losses& LAE Included in Base Rate	40,580,794
b. Additional WSST Losses & LAE	10,013,962
(6) Reinsurance Expense Factor	0.70
(7) Reinsurance Loss+Expenses [(5) / (6)]	72,278,222
(8) Reinsurance Premium to Surplus Ratio	0.30
(9) Reinsurer Underwriting Return Percent of Surplus	14.5%
(10) Reinsurer Underwriting Return Percent of Premium[(9) / (8)]	48.3%
(11) Reinsurance Premium [(7) / (1.000-(10))]	139,879,797
(12) Reinsurance Expense Cost [(7)-(5)]	21,683,467
(13) Cost of Reinsurer Capital [(11) - (5a) -(12)]	77,615,536
(14) Reinsurer Expenses plus Cost of Reinsurer Capital [(12) + (13)]	99,299,003
(15) Direct Premium Including Reinsurance Cost	297,359,872
(16) Reinsurance Expense Cost as % of Direct Premium [(12) / (15)]	7.29%
(17) Cost of Reinsurer Capital as % of Direct Premium [(13) / (15)]	26.10%
(18) Reinsurance Premium as % of Direct Premium [(11)/ (15)]	47.04%

#### Notes:

- (1), (5) from Simulation
- (2), (15) From Sheet 1
- (4) Assumes 95% hurricane losses are reinsured from 1/10 year event to 1/100 year event.
- (6) Judgment based on Professional Reinsurers Cat Expenses.
- (8) Milliman Analysis.
- (9) Underwriting return that produces reasonable after-tax return on surplus.

# NORTH CAROLINA RATING BUREAU

## EXHIBIT RB-16, Sheet 1

# Using Standard Deviation to Allocate Profit

Sum

Zone 3

Zone 2

Zone 1

				,		
Ē	Allocation of Primary Company Amounts (4) Standard Davistion of Net Losses	150,425,571	25.370,151	13,828,046	189,623,767	
	(1) Standard Deviation 101 Tot Edges (2) Allocation Percent [(1) / Stim(1)]	79.3%	13.4%	7.3%	100.0%	
	(2) Finocasion (2) Constant	24,940,369	4,206,339	2,292,672	31,439,381	
	(3) Expected Continuencies to Allocate (Allocated with (7))	1,870,911	523,281	579,407	2,973,599	
	(4) Expected Joseps (5) Indeed (6) Indeed (7)	38,538,392	10,778,920	11,935,039	61,252,351	
	(6) Loss Adjustment Expense Factor	1.117	1.117	1.117	1.117	
	(3) Exacted 1 osses and 1 oss Expenses ((5) x (6))	43,047,384	12,040,054	13,331,439	68,418,876	
	(1) Expected Ecococ and Ecoco Expenses (1) (2). (8) Expected Investment Income on Policy Reserves Percent	4.7%	4.7%	4.7%	4.7%	
	(4) Expected in resulting and Continuencies ((3) + (4) - (7) x (8)]	24,804,094	4,168,224	2,250,469	31,222,787	
_	(10) General and Other Acquisition Expense	10,010,581	2,799,890	3,100,199	15,910,670	
	(11) Variable Expense Percent	14.10%	14.10%	14.10%	14.10%	
717	Allowation of Dejine iron Amounts					
₹ `	Ocation of Nemsure Amounts	148 775 245	26 616 554	11.803.419	187.195.218	
- \	(12) Stational Deviation of Coded Ecsses	79.5%	14.2%	6.3%	100.0%	
- `	(13) Allocation February (12) Carry (12)]	55.601.936	9.947.434	4,411,305	69,960,675	
	14) Expected Floid to Allocate	35 324 351	4 188 029	1.068,413	40.580.794	
	(12) Expected Ceded Loss & LAE	8 395 120	1 341 252	277, 590	10.013.962	
	16) Additional Wool General Losses & CAE	42 740 474	5 520 281	1 3/6 003	50 594 756	
	(1/) Expected Losses and Loss Expenses [(15) + (16)]	14'61 1'Ct	707 7	200'010';	4 7%	
_	(18) Expected investment income on Policy Reserves Percent	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	7 000 7	77 848 538	
	(19) Cost of Reinsurer Capital [(14) - (17) × (18) + (16)] (20) Reinsurer Expenses  Total (20) allocated with (17)]	51,958,53 <i>2</i> 18,874,801	2,237,782	4,626,134 570,883	21,683,467	
อัก วั	Summary of Expense Provisions (21) Indicated Premium [((7) + (9) + (10) + (15) + (19) + (20)) / (1.0 - (11))]	225,866,988	42,450,349	29,042,536	297,359,872	
	(22) Underwriting Profit and Contingencies (Percent) [(9) / (21)]	11.0%	9.8%	7.7%	10.5%	
_	(23) Cost of Reinsurer Capital (Percent) [(19) / (21)]	27.4%	26.0%	15.9%	26.1%	
-	(24) Reinsurer Expenses (Percent) [(20) / (21)]	8.4%	5.3%	2.0%	7.3%	
Ž	Notes					

- Notes:
  1. (1), (5), (12), (15), (16) From Simulation.
  2. Sum(3) from Exhibit RB-15, Sheet 1, Zone amounts from Sum and Allocation Percentage (2).
  3. (4), (6), (10), (11), (18) From Exhibit RB-15, Sheet 1.
  4. Sum(14) from Exhibit RB-15: [(Sheet 2 (13) (5b) + (Sheet 2 (5) × Sheet 1 (12))]
  5. Zone amounts(14) from Sum(14) and Allocation Percentage (13).
  6. Sum(20) from Exhibit RB-15, Sheet 2, Zone amounts from Sum and Allocation based on (17).

# NORTH CAROLINA RATING BUREAU

## EXHIBIT RB-16, Sheet 2

## Using Variance to Allocate Profit

	Zone 1	Zone 2	Zone 3	Sum	
Allocation of Primary Company Amounts		,	1		
(1) Variance of Net Losses (in billions)	22,627,852	643,645	191,715	23,462,711 100 0%	
(2) Allocation Percent [(1) / Sum(1)]	90.470	0/ 1.70	0.078	34 430 384	
(3) Expected Profit to Allocate	30,320,692	862,466	230,223	1,439,301	
<ul><li>(4) Expected Contingencies to Allocate (Allocated with (7))</li></ul>	1,870,911	523,281	5/9,40/	2,973,599	
(5) Expected Losses	38,538,392	10,778,920	11,935,039	61,252,351	
(6) Loss Adjustment Expense Factor	1.117	1.117	1.117	1.117	
(7) Expected Losses and Loss Expenses [(5) x (6)]	43,047,384	12,040,054	13,331,439	68,418,876	
(8) Expected Investment Income on Policy Reserves Percent	4.7%	4.7%	4.7%	4.7%	
(9) Underwriting Profit and Contingencies [(3) + (4) - (7) x (8)]	30,184,417	824,351	214,019	31,222,787	
(10) General and Other Acquisition Expense	10,010,581	2,799,890	3,100,199	15,910,670	
(11) Variable Expense Percent	14.10%	14.10%	14.10%	14.10%	
Allocation of Reinsurer Amounts	000 000	700 444	120 224	22 081 825	
(11) Variance of Ceded Losses (in billions)	22,134,073	700,441	135,521	400 007	
(13) Allocation Percent [(12) / Sum(12)]	96.3%	3.1%	0.0%	100.0%	
(14) Expected Profit to Allocate	67,379,942	2,156,617	424,116	69,960,675	
(15) Expected Ceded Loss & LAE	35,324,351	4,188,029	1,068,413	40,580,794	
(16) Additional WSST Ceded Losses & LAE	8,395,120	1,341,252	277,590	10,013,962	
(12) Fynariad I ossas and I oss Expanses [(15) + (16)]	43,719,471	5,529,281	1,346,003	50,594,756	
(17) Expected Ecococc and Income on Policy Reserves Percent	4.7%	4.7%	4.7%	4.7%	
(10) Expected investment income on 1 (18) + (18)]	73.736.538	3,240,053	638,946	77,615,536	
(20) Reinsurer Expenses [Total (20) allocated with (17)]	18,874,801	2,237,782	570,883	21,683,467	
Control of					
Summary of Expense Frovisions (21) Indicated Premium [((7) + (9) + (10) + (15) + (19) + (20)) / (1.0 - (11))]	245,841,760	29,487,961	22,030,151	297,359,872	
(22) Underwriting Profit and Contingencies (Percent) [(9) / (21)]	12.3%	2.8%	1.0%	10.5%	
(1997) (1997) (Paraman Cantina (1997)	30.0%	11.0%	2.9%	26.1%	
(53) COSE OF TABLES OR OR OF THE COST (1 51 57) (51)					
(24) Reinsurer Expenses (Percent) [(20) / (21)]	7.7%	7.6%	2.6%	7.3%	
Notice					

## Notes:

- 1. (1), (5), (12), (15), (16) From Simulation.
  2. Sum(3) from Exhibit RB-15, Sheet 1, Zone amounts from Sum and Allocation Percentage (2).
  3. (4), (6), (6), (10), (11), (18) From Exhibit RB-15, Sheet 1.
  4. Sum(14) from Exhibit RB-15: [(Sheet 2 (13) (5b)) + (Sheet 2 (5) × Sheet 1 (12))]
  5. Zone amounts(14) from Sum(14) and Allocation Percentage (13).
  6. Sum(20) from Exhibit RB-15, Sheet 2, Zone amounts from Sum and Allocation based on (17).

# NORTH CAROLINA RATING BUREAU

## EXHIBIT RB-16, Sheet 3

# Using Losses at Probability of Ruin to Allocate Profit

	Zone 1	Zone 2	Zone 3	Sum
Allocation of Primary Company Amounts				1
(1) Net Losses at Probability of Ruin	320,089,846	48,006,735	20,258,922	388,355,502
(2) Allocation Percent [(1) / Sum(1)]	82.4%	12.4%	5.2%	100.0%
(3) Expected Profit to Allocate	25,912,924	3,886,393	1,640,064	31,439,381
(4) Expected Contingencies to Allocate (Allocated with (7))	1,870,911	523,281	579,407	2,973,599
(5) Expected Losses	38,538,392	10,778,920	11,935,039	61,252,351
	1.117	1.117	1.117	1.117
	43,047,384	12,040,054	13,331,439	68,418,876
(8) Expected Investment Income on Policy Reserves Percent	4.7%	4.7%	4.7%	4.7%
(9) Underwriting Profit and Contingencies [(3) + (4) - (7) x (8)]	25,776,648	3,848,277	1,597,861	31,222,787
(10) General and Other Acquisition Expense	10,010,581	2,799,890	3,100,199	15,910,670
(11) Variable Expense Percent	14.10%	14.10%	14.10%	14.10%
•				
Allocation of Reinsurer Amounts	392 162 777	55 276 633	15 856 432	463.295.842
(11) Ceded Losses at Plobability of Rulii	0.02,102,111	14 0%	%V &	100 0%
(13) Allocation Percent [(12) / Sum(12)]	84.6%	0/6.1	0.470	80.001
(14) Expected Profit to Allocate	59,219,121	8,347,130	2,394,424	69,960,675
(15) Expected Ceded Loss & LAE	35,324,351	4,188,029	1,068,413	40,580,794
(16) Additional WSST Ceded Losses & LAE	8,395,120	1,341,252	277,590	10,013,962
(17) Expected Losses and Loss Expenses [(15) + (16)]	43,719,471	5,529,281	1,346,003	50,594,756
(17) Expected lovestment Income on Policy Reserves Percent	4.7%	4.7%	4.7%	4.7%
(19) Cost of Reinsurer Capital 1(14) - (17) × (18) + (16)1	65,575,717	9,430,566	2,609,254	77,615,536
(20) Reinsurer Expenses [Total (20) allocated with (17)]	18,874,801	2,237,782	570,883	21,683,467
Summary of Evnonce Drowiejone	18.874.801	2.237.782	570.883	21,683,467
(21) Indicated Premium [((7) + (9) + (10) + (15) + (19) + (20)) / (1.0 - (11))]	231,210,107	40,214,900	25,934,865	297,359,872
(22) Underwriting Profit and Contingencies (Percent) [(9) / (21)]	11.1%	8.6%	6.2%	10.5%
(23) Cost of Reinsurer Capital (Percent) [(19) / (21)]	28.4%	23.5%	10.1%	26.1%
(24) Reinsurer Expenses (Percent) [(20) / (21)]	8.2%	5.6%	2.2%	7.3%
, , , , , , , , , , , , , , , , , , ,				,

## Notes:

- 1. (1), (5), (15), (16) From Simulation.
  2. Sum(3) from Exhibit RB-15, Sheet 1, Zone amounts from Sum and Allocation Percentage (2).
  3. (4), (6), (8), (10), (11), (18) From Exhibit RB-15, Sheet 1.
  4. Sum(14) from Exhibit RB-15: [(Sheet 2 (13) (5b)) + (Sheet 2 (5) × Sheet 1 (12))]
  5. Zone amounts(14) from Sum(14) and Allocation Percentage (13).
  6. Sum(20) from Exhibit RB-15, Sheet 2, Zone amounts from Sum and Allocation based on (17).

#### NCRB - PRO FORMA STATUTORY RETURN

#### DWELLING FIRE

		Pre-Tax	Tax Liability	Post-Tax
. ]	Premiums	100.00%		
	Loss & Loss Adjustment Expense	57.62%		
	Commission & Brokerage	15.00%		
	General Expense	7.74%		
	Other Acquisition Expense	7.24%		
	Taxes, Licenses and Fees	2.90%		
		0.5007		
2.	Pro-Forma Underwriting Profit	9.50%		
3.	Installment Fee Income	. 0.71%		
4.	Regular tax		3.57%	
5.	Additional tax due to TRA		0.27%	
6.	Return from Underwriting (post-tax)			6.37%
7.	Investment Gain on Insurance Transaction	2.73%		
٠.	Less Investment Income on Agents Balances	0.52%		
	Net Investment Gain on Insurance Transaction	2.21%	0.52%	1.69%
8.	Statutory Return as a % of Premium (post-tax)			8.06%
9.	Premium-to-Net Worth Ratio			0.974
10.	Statutory Return as a % of Net Worth (post-tax)			7.85%
1				
ı	e: Lines (1) to (8) are all expressed as a % of premium.			

#### Assumptions

(b) (c) (d) (e)	UW Tax Rate = Inv. Income Tax Rate = Inv. Yield = P/S Ratio = NW/S Ratio = Installment Fee Income=	35.00% 23.41% 3.96% 1.13 1.16 0.71%
(f)	Installment Fee Income=	0.71% 0.27%
(g)	Additional TRA tax=	0.2770

#### NOTES TO EXHIBIT RB-18, Page 1

- 1. The expense provisions are those used on page C-1 of Exhibit RB-1.
- 2. Selected by Rate Bureau.
- 3. See assumption (f) below.
- 4.  $[(2)+(3)] \times (a)$ .
- 5. See assumption (g) below.
- 6. (2) + (3) [(4) + (5)].
- 7. Pages 7-10. Investment income on agents' balances equals 0.131 x 1.032 x (c), where 0.131 is agents' balances for premiums due less than 90 days and 1.032 is the factor to include the effects of agents' balances or uncollected premiums overdue for more than 90 days.
- 8. (6) + (7).
- 9. (d)/(e).
- 10. (8) x (9).

#### ASSUMPTIONS

- (a) Internal Revenue Code.
- (b) See RB-18, pp. 11-13; 1-avg post-tax yield/avg pre-tax yield.
- (c) See RB-18, pp. 11-13; average of current and embedded yields.
- (d) See RB-18, p. 14
- (e) See RB-18, p. 15.
- (f) See RB-18, p. 3.
- (g) See RB-18, pp. 4-6

## NCRB - PRO FORMA STATUTORY RETURN ADJUSTED TO INCLUDE INVESTMENT INCOME ON SURPLUS DWELLING FIRE

	Pre-Tax	Tax Liability	Post-Tax
Premiums	100.00%		
Loss & Loss Adjustment Expense	57.62%		
Commission & Brokerage	15.00%		
General Expense	7.74%		
Other Acquisition Expense	7.24%		
Taxes, Licenses and Fees	2.90%		
. Pro-Forma Underwriting Profit	9.50%		
. Installment Fee Income	0.71%		
Providentary		3.57%	
. Regular tax . Additional tax due to TRA		0.27%	
i. Return from Underwriting (post-tax)			6.379
7. Investment Gain on Insurance Transaction	2.73%		
<ol> <li>Investment Gain on Insurance Transaction</li> <li>Less Investment Income on Agents Balances</li> </ol>	0.52%		
Net Investment Gain on Insurance Transaction	2.21%	0.52%	1.69
3. Investment Gain on Surplus (Including Prepaid Expense Adjustment)	3.97%	0.93%	3.04
7. Total Return as a % of Premium (post-tax)			11.10
10. Premium-to-Net Worth Ratio			0.97
11. Total Return as a % of Net Worth (post-tax)			10.81
Note: Lines (1) to (9) are all expressed as a % of premium.			

#### Assumptions

(a)	UW Tax Rate =	35.00%
(a) (b)	Inv. Income Tax Rate =	23.41%
` '	Inv. Yield =	3.96%
	P/S Ratio =	1.13
(d)	NW/S Ratio =	1.16
(-)		0.71%
	Installment Fee Income=	0.27%
(g)	Additional TRA tax=	

#### NOTES TO EXHIBIT RB-18, Page 1A

- 1. The expense provisions are those used on page C-1 of Exhibit RB-1.
- 2. Selected by Rate Bureau.
- 3. See assumption (f) below.
- 4.  $[(2)+(3)] \times (a)$ .
- 5. See assumption (g) below.
- 6. (2) + (3) [(4) + (5)].
- 7. Pages 7-10. Investment income on agents' balances equals 0.131 x 1.032 x (c), where 0.131 is agents' balances for premiums due less than 90 days and 1.032 is the factor to include the effects of agents' balances or uncollected premiums overdue for more than 90 days.
- 8. (c)  $\times [1/(d) + (0.2491 \times 0.4711)]$ , where 0.2491 is the prepaid expense ratio from page 7 and 0.4711 is the unearned premium reserve to premium ratio from page 7.
- 9. (6) + (7) + (8).
- 10. (d)/(e).
- 11. (9) x (10).

#### **ASSUMPTIONS**

- (a) Internal Revenue Code.
- (b) See RB-18, pp. 11-13; 1-avg post-tax yield/avg pre-tax yield.
- (c) See RB-18, pp. 11-13; average of current and embedded yields.
- (d) See RB-18, p. 14
- (e) See RB-18, p. 15.
- (f) See RB-18, p. 3.
- (g) See RB-18, pp. 4-6

## NORTH CAROLINA DWELLING FIRE/EC INSTALLMENT PAYMENT INCOME (in thousands)

Year	Inst. Charges as a % of Prem.
2007	0.86%
2006	0.68%
2005	0.65%
2004	0.68%
2003	0.70%
Average	0.71%
Selected Value	0.71%

Source: From ISO.

#### NORTH CAROLINA DWELLING FIRE

#### ESTIMATION OF TRA TAXABLE INCOME

1 Earned Premium (current year)	100.00%
2 UEPR (previous year)	43.47%
3 UEPR (current year)	47.24%
4 Increase = $(3)$ - $(2)$	3.77%
5 20% of Increase = Taxable Income	0.75%
6 Tax Liability = $(5)x.35$	0.26%
7 Unpaid Losses (current year)	8.22%
8 Discounted unpaid losses (current year)	7.95%
9 Unpaid Losses (previous year)	7.56%
10 Discounted unpaid losses (previous year)	7.32%
11 Additional Income	0.02%
12 Tax Liability	0.01%
Other Tax Liabilities	
13 UEP	0.26%
14 Discounting of Loss Reserves	0.01%
15 Total	0.27%

#### NORTH CAROLINA DWELLING FIRE CALCULATION OF TAXABLE INCOME

(1)	(2)	(3)	(4)	(5)
AY Avg	AY Pay	Percent	Total	Unpaid
Acc Date	Pattern	Unpaid	Losses	Losses
0,5	88,40%	11,60%	57.615	6.7
1.5	97.90%	2.10%	53,016	1.1
2.5	99.40%	0.60%	48,785	0.3
3.5	99.80%	0,20%	44.891	0.1
4.5	99.90%	0.10%	41.308	0.0
5,5 6.5	100,00% 100,00%	0.00% 0.00%	38.011 34.977	0.0
7.5	100,00%	0.00%	32.185	0.0
8.5	100.00%	0.00%	29.616	0.0
9.5	100,00%	0.00%	27,252	0.0
10,5	100,00%	0.00%	25.077	0,0
11.5	100.00%	0.00%	23.075	0.0
12.5	100,00%	0.00%	21,233	0.0
13.5 14.5	100,00% 100,00%	0,00% 0,00%	19.539 17.979	0.0
15.5	100,00%	0.00%	16.544	0.0
16.5	100.00%	0.00%	15,224	0,0
17.5	100.00%	0.00%	14.008	0.0
18.5	100.00%	0.00%	12.890	0.0
19.5	100.00%	0.00%	11.861	0.0
20.5	100,00%	0.00%	10.915 10.044	0.0
21.5 22.5	100.00% 100,00%	0.00% 0.00%	9,242	0.0
22.5	100,00%	0,00%	8,504	0.0
24.5	100,00%	0.00%	7,825	0.0
25.5	100,00%	0.00%	7.201	0.0
26.5	100,00%	0.00%	6.626	0.0
27.5	100,00%	0,00%	6.097	0,0
28.5	100.00%	0.00% 0,00%	5.610 5.163	0.0
29.5 30.5	100.00% 100,00%	0,00%	4.751	0.0
31.5	100.00%	0.00%	4.371	0.0
32.5	100.00%	0.00%	4,023	0.0
33,5	100,00%	0.00%	3.701	0.0
34.5	100,00%	0.00%	3.406	0.0
35.5	100.00%	0.00%	3,134	0.0
36.5	100,00%	0.00% 0.00%	2.884 2.654	0,0 0.0
37.5 38.5	100,00% 100,00%	0.00%	2.442	0.0
39.5	100,00%	0.00%	2,247	0.0
40.5	100,00%	0.00%	2,068	0.0
41,5	100.00%	0.00%	1,903	0.0
42.5	100,00%	0,00%	1,751	0.0
43.5	100.00%	0,00%	1.611 1.482	0,0 0,0
44.5 45.5	100,00% 100,00%	0.00% 0.00%	1.482	0.0
45.5	100,00%	0.00%	1.255	0.0
47.5	100.00%	0.00%	1.155	0,0
48.5	100.00%	0.00%	1.063	0,0
49,5	100.00%	0.00%	0.978	0,0
50.5	100.00%	0,00%	0.900	0,0 0,0
51.5 52.5	100.00% 100.00%	0,00% 0,00%	0,828 0,762	0.0
53.5	100.00%	0.00%	0.702	0.0
54.5	100.00%	0.00%	0.645	0,0
55,5	100,00%	0.00%	0.594	0,0
56.5	100,00%	0.00%	0,546	0.0
57.5	100.00%	0.00%	0,503	0.0
58,5	100.00%	0.00%	0,463 0,426	0.0 0.0
59.5 60,5	100,00% 100,00%	0.00% 0.00%	0,426	0.0
61.5	100,00%	0.00%	0.360	0.0
62.5	100,00%	0.00%	0,332	0.0
63.5	100.00%	0.00%	0.305	0.0
64.5	100,00%	0.00%	0,281	0.0
65.5	100,00%	0.00%	0.258	0.0
66.5	100.00%		0.238	0.0
Sum	ı			8.22
	•			,

(6)	(7)	(8)
AY at	Discount	Discounted
current year end	Factor	Weight
2009	0.966430	6.5
2008	0.966174	1.1
2007	0.980298	0.3
2006	0.980298	0,1
2005	0.980298	0.0
2004	0.980298 0.980298	0.0
2003 2002	0.980298	0.0
2002	0.980298	0.0
2000	0.980298	0.0
1999	0.980298	0.0
1998	0.980298	0.0
1997	0.980298	0.0
1996	0.980298	0.0
1995 1994	0,980298 0,980298	0.0
1993	0,980298	0.0
1992	0,980298	0.0
1991	0.980298	0.0
1990	0.980298	0.0
1989	0.980298	0.0
1988	0.980298	0.0
1987 1986	0.980298 0.980298	0.0
1985	0,980298	0.0
1984	0.980298	0.0
1983	0.980298	0.0
1982	0.980298	0.0
1981	0.980298	0.0
1980	0.980298	0.0
1979	0.980298	0.0
1978 1977	0,980298 0,980298	0,0
1977	0,980298	0.0
1975	0.980298	0.0
1974	0,980298	0.0
1973	0.980298	0.0
1972	0.980298	0.0
1971	0.980298	0,0
1970 1969	0,980298 0,980298	0.0 0.0
1968	0.980298	0.0
1967	0.980298	0.0
1966	0.980298	0.0
1965	0.980298	0.0
1964	0.980298	0.0
1963	0.980298	0.0 0.0
1962	0,980298 0,980298	0.0
1961 1960	0.980298	0.0
1959	0.980298	0.0
1958	0.980298	0.0
1957	0.980298	
1956	0.980298	
1955	0.980298	
1954	0.980298	
1953 1952	0.980298 0.980298	
1951	0.980298	
1950	0,980298	
1949	0.980298	
1948	0.980298	0.0
1947	0,980298	
1946	0,980298	
1945	0.980298	
1944 1943	0,980298 0,980298	
1943	0.380298	, 0.0
Sum		7.95
Sum		7.9

(9)	(10)	(11)	(12)
	(10)	Discount	Discounted
AY at prior year end	Weight	Factor	Weight
2008	6.14989309	0,966430	5.9
2007	1.02447803	0.966174	1.0
2006	0.26934467	0.980298	0.3
2005 2004	0.08261538	0.980298	0.1
2003	0	0.980298	0.0
2002	. 0	0.980298	0.0
2001	0	0,980298	0.0
2000 1999		0.980298	0.0
1998		0.980298	0.0
1997		0.980298	0.0
1996 1995		0.980298	0.0
1993		0.980298	0.0
1993		0,980298	0.0
1992		0.980298	0.0
1991		0,980298	0.0
1990 1989		0.980298	0.0
1988		0.980298	0.0
1987		0.980298	0.0
1986		0,980298	0.0
1985		0.980298	0.0
1984 1983		0.980298	0.0
1982		0.980298	0.0
1981	. 0	0.980298	0.0
1980		0.980298	0.0
1979		0.980298 0.980298	0.0 0.0
1971 197		0.980298	0.0
1970		0.980298	0,0
197	5 0	0.980298	0,0
197		0,980298	0.0
197. 197.		0.980298 0.980298	0,0
197		0.980298	0.0
197		0.980298	0.0
196		0.980298	0.0
196 196		0.980298	0.0 0.0
196		0.980298	0.0
196		0.980298	0.0
196		0,980298	0.0
196		0,980298	0.0
196 196			
196			
195			
195			
195 195			
195			
195			
195			
195			
195			
194	19 (	0.980298	0,0
194			
194			
194			
194			
194		0.98029	
Su	m		7.32

#### NOTES TO PAGES 4 AND 5

#### Page 4

- 1 Current year earned premium
- 2 Estimated prior year UEPR as percent of current year earned premium given assumed premium growth rate
- 3 Annual Statement, page 15, UEPR/Earned Premium for all companies writing this line of insurance in North Carolina.
- 4 Line (3) line (2)
- 5 Line (4) x .20.
- 6 Line (5) x .35.
- 7 Unpaid current-year losses at year-end as a percent of premium. Sum of Page 5, Column (5).
- 8 Discounted unpaid current-year losses at year-end as a percent of premium. Sum of Page 5, Column (8).
- 9 Unpaid prior-year losses at year-end as a percent of premium. Sum of Page 5, Column (5) divided by (1+ assumed growth rate).
- 10 Discounted unpaid prior-year losses at year-end as a percent of premium. Sum of Page 5, Column (12).
- 11 Line (7) Line (8) [Line (9) Line (10)]
- 12 Line (11) x .35
- 13 Line (6)
- 14 Line (12)
- 15 Line (13) + Line (14)

#### Page 5

- 1 Midpoint of number of years since end of accident period.
- 2 Accident year payout pattern developed from policy year developed losses.
- 3 1 Column (2)
- 4 Losses, given assumed historical growth rate.
- 5 Column (3) x Column (4)
- 6 Accident Year at current year end
- 7 Discount factor per IRS Regulations.
- 8 Column (5) x Column (7)
- 9 Accident Year at prior year end
- 10 Column (3), previous period x Column (4), current period
- 11 Discount factor per IRS Regulations.
- 12 Column (10) x Column (11)

## NCRB INVESTMENT INCOME CALCULATION DWELLING FIRE

Projected Investment Earnings on Loss, Loss Adjustment Expense and Unearned Premium Reserves

A. UNEARNED PREMIUM RESERVES		
1. Direct Earned Premiums		1,000,000
2. Mean UEPR	47.11%	471,100
3. Deductions for prepaid expenses		
Commissions & Brokerage	15.00%	
Taxes, Licenses & Fees	2.42%	
One Half Other Acquisition Expense	3.62%	
One Half General Expense	3.87%	
Total	24.91%	
4. Deduction for Prepaid Expenses: (2) x (3)		117,339
5. Net UEPR Subject to Inv (4) - (2)		353,761
B. Loss and Loss Expense Reserves		1,000,000
1. Direct Earned Premium	0.5761503	576,150
<ol> <li>Expected Inc L &amp; LAE to Premium Ratio</li> <li>Expected Mean L&amp;LAE Reserve to Inc. L &amp; LAE Ratio</li> </ol>	0.581	334,522
C. Net PH Funds Subj to Inv		
(A5 + B3)		688,283
D. Average Rate of Return		3.96%
E. Investment Earnings from Net Reserves (D) x (E)		27,256
F. Average Rate of Return as a Percent of Direct Earned Premium (E) / (A1)		2.73%

## NORTH CAROLINA DWELLING FIRE

## ESTIMATED INVESTMENT EARNINGS ON UNEARNED PREMIUM RESERVES AND ON LOSS RESERVES

#### **EXPLANATORY NOTES**

#### Line A-1

All calculations are displayed per \$1,000,000 direct earned premiums.

#### Line A-2

The mean unearned premium reserve is determined by multiplying the direct earned premiums in line (1) by the ratio of the mean unearned premium reserve to the collected earned premium for calendar year ended 12/31/current year for all companies writing Dwelling insurance in North Carolina. These data are from page 15 of the Annual Statement.

1. Collected Earned Premium for Calendar Year ended 12/31/current year	203,287,567
2. Unearned Premium Reserve as of 12/31/prior year	95,484,685
3. Unearned Premium Reserve as of 12/31/current year	96,034,574
4. Mean Unearned Premium Reserve 1/2 [(2) + (3)]	95,759,630
5. Ratio $(4) \div (1)$	0.4711

#### <u>Line A-3</u>

Deduction for prepaid expenses:

Production costs and a large part of the other company expenses in connection with the writing and handling of Dwelling policies, exclusive of claim adjustment expenses, are incurred when the policy is written and before the premium is paid. The deduction for these expenses is determined from data provided by the NCRB for the year ended 12/31/current year.

#### NORTH CAROLINA DWELLING FIRE

## ESTIMATED INVESTMENT EARNINGS ON UNEARNED PREMIUM RESERVES AND ON LOSS RESERVES

#### **EXPLANATORY NOTES**

#### Line B-2

The expected loss and loss adjustment expense ratio reflects the expense provisions for the year ended 12/31/current year.

#### Line B-3

The mean loss reserve is determined by multiplying the incurred losses in line (2) by the North Carolina ratio of the mean loss reserves to the incurred losses for Dwelling insurance. This ratio is based on North Carolina companies' Page 15 annual statement data and has been adjusted to include loss adjustment expense reserves.

1	Incurred Losses for CY	2003	47,926,168
2	Incurred Losses for CY	2004	50,136,613
3	Incurred Losses for CY	2005	57,292,735
4	Incurred Losses for CY	2006	74,371,507
5	Incurred Losses for CY	2007	99,526,487
		•	22.252.422
6	Loss Reserves as of 12/31	2002	30,860,422
7	Loss Reserves as of 12/31	2003	33,193,930
8	Loss Reserves as of 12/31	2004	28,560,379
9	Loss Reserves as of 12/31	2005	30,521,170
10	Loss Reserves as of 12/31	2006	45,299,619
11	Loss Reserves as of 12/31	2007	37,233,970
12	Mean Loss Reserve	2003	32,027,176
12	Mean Loss Reserve	2004	30,877,155
13 14	Mean Loss Reserve	2005	29,540,775
	Mean Loss Reserve	2006	37,910,395
15		2007	41,266,795
16	Mean Loss Reserve	2007	· -,,
17	Loss Reserve Ratio	2003	0.668
18	Loss Reserve Ratio	2004	0.616
19	Loss Reserve Ratio	2005	0.516
20	Loss Reserve Ratio	2006	0.510
21	Loss Reserve Ratio	2007	0.415
22	Average Loss Reserve Rat	0	0.545
23	Ratio of LAE Reserves to	Loss Reserves	0.236
	Ratio of Incurred LAE to		0.160
24	Katio of Highlien PAT: to	Montton Dogges	
25	Loss and LAE Reserve/In-	curred Loss&LAE	0.581

## ESTIMATED INVESTMENT EARNINGS ON UNEARNED PREMIUM RESERVES AND ON LOSS RESERVES

#### **EXPLANATORY NOTES**

#### Line E

The average rate of return is calculated as the arithmetic mean of the embedded and current yields. The embedded yield is the sum of two ratios: the most recent ratio of investment income to invested assets, plus the ten year average ratio of capital gains to invested assets (see page 12). The current yield is the estimated, currently available rate of return (including income and expected capital gains) on the property/casualty industry investment portfolio (see page 11).

Embedded Yield =	4.17% + 0.58% =	4.75%
Current Yield =		3.18%
Average =		3.96%

PORTFOLIO YI	ELD AND TAX RA	ATE - CURREN	NT YIELD	
(1)	(2)	(3)	(4)	(5)
		Estimated		Estimated
	Percent	Prospective		Prospective
	of	Pre-Tax	Tax	Post-Tax
Investable Asset	Assets	Return	Rate	Return
Bonds				
U.S. Govt	9.47%	2.18%	35.00%	1.42%
States & territories	14.48%	2.59%	5.25%	2.45%
Special revenue	25.58%	l l	5.25%	2.66%
Public Utilities	1.38%	2.93%	35.00%	1.90%
Industrial	22.09%	2.68%	35.00%	1.74%
Preferred stock	1.84%	5.81%	14.18%	4.99%
Common stock	15.07%	9.60%	30.39%	6.68%
Mortgage Loans	0.42%	5.02%	35.00%	3.26%
Real estate	0.92%	4.08%	35.00%	2.65%
Cash & short-term invs.	. 8.74%	0.14%	35.00%	0.09%
Rate of Return Pre-Inv Exp	100.00%	3.56%	23.35%	2.739
Investment Expenses		0.38%	35.00%	0.25
Portfolio Rate of Return		3.18%	21.96%	2.48%

#### Sources:

Various issues of Federal Reserve Statistical Release, H.15(519).

Mergent Bond Record.

Standard & Poor's CreditWeek.

Value Line Investment Survey, Part II.

Ibbotson Associates, "SBBI Valuation Edition 2010 Yearbook."

Ibbotson and Siegel, AREUEA Journal, 1984.

A.M. Best's Aggregates & Averages, 2009 edition.

	CLD AND TAX RAT DED YIELD	E
	Income	Tax Rate
Bonds		
Taxable	26,065,645	35.00%
Non-Taxable	16,923,546	5.25%
Stocks		
Taxable	5,244,126	14.18%
Non-Taxable	1,234,199	5.25%
Mortgage Loans	312,607	35.00%
Real Estate	1,772,757	35.00%
Contract Loans	692	35.00%
Cash / Short Term Inv.	2,660,197	35.00%
All Other	4,262,121	35.00%
Total	58,475,890	23.89%
Inv. Expenses	4,710,400	35.00%
Net Inv. Income	53,765,490	22.92%
Mean Invested Assets	1,288,393,875	
Inv. Inc. Yield Rate	4.17%	22.92%
Capital Gains (10 yr. avg) (% Of Inv. Assets)	0.58%	35.00%
Invest. Yield Rate (pre-tax)	4.75%	24.38%
Invest. Yield Rate (post-tax)	3.59%	

Source: Best's Aggregates and Averages, 2009 Edition, p. 12 (Exhibit of Net Investment Income, Col. 2 (Earned During Year)).

Capital Gains: RB-18, page 13

### CAPITAL GAINS OR LOSSES AS A PERCENT OF MEAN ASSETS

(All amounts in thousands of dollars)

	Mean Total		ealized
Calendar	Invested	Cap	ital Gains
Year	Assets	Amount	Percent
1999	797,920,622	13,016,157	1.63%
2000	794,195,460	16,204,649	2.04%
2001	785,530,275	6,630,679	0.84%
2002	815,037,267	2,770,997	0.34%
2003	908,024,056	6,280,196	0.69%
2004	1,018,810,319	9,113,199	0.89%
2005	1,120,026,040	12,194,108	1.09%
2006	1,217,345,564	3,587,228	0.29%
2007	1,297,478,130	9,031,778	0.70%
2008	1,288,393,875	(21,018,623)	-1.63%
	10.042.761.606	57,810,368	0.58%
Total	10,042,761,606	37,810,308	0.5070

<sup>\*</sup>Mean total invested assets is the average of the current year and prior year values of total invested assets (annual statement page 2, Line 9).

Source: "Best's Aggregates & Averages--Property-Casualty," 1998-2001 from 2002 edition

Invested Assets p 188, Realized Capital Gains p 190 2002 from 2003 edition

Invested Assets p 2, Realized Capital Gains p 4 2003 from 2004 edition

Invested Assets p 138, Realized Capital Gains p 140 2003 from 2004 edition

Invested Assets p 138, Realized Capital Gains p 140 2004 from 2005 edition

Invested Assets p 152, Realized Capital Gains p 154 2005 from 2006 edition

Invested Assets p 152, Realized Capital Gains p 154 2006 from 2007 edition

Invested Assets p 156, Realized Capital Gains p 158 2007 from 2008 edition

Invested Assets p 156, Realized Capital Gains p 158 2008 from 2009 edition

Invested Assets p 140, Realized Capital Gains p 142

## NORTH CAROLINA DWELLING FIRE AND EXTENDED COVERAGE

#### PREMIUM-TO-SURPLUS RATIOS

		Extended
Year	<u>Fire</u>	Coverage
1999	1.054	1.013
2000	1.047	1.095
2001	1.153	1.198
2002	1.302	1.330
2003	1.271	1.244
2004	1.297	1.288
2005	1.225	1.196
2006	1.001	1.010
2007	0.948	0.967
2008	1.003	1.034
•		
Five-Year Average	1.095	1.099
Ten-Year Average	1.130	1.137

#### Notes:

- 1 Ratios based on net premium written.
- 2 From Best's Data Service and Best's Aggregate and Averages.
- 3 Top 30 groups each year.

NORTH CAROLINA DWELLING FIRE/EC INSURANCE CALCULATION OF GAAP NET WORTH TO SURPLUS RATIO

	2004	2005	2006	2007	2008
Policyholder Surplus	391,294,425,276	425,759,944,800	486,231,429,443	517,875,621,253	457,293,555,877
+ Deferred Acquisition Costs + Non-Admitted DTA Provision + Non-admitted Assets (non-tax part) + Provision for Reinsurance + Provision for FASB 115(after-tax) - Surplus Notes	25,336,389,277 19,919,892,745 22,629,830,486 5,971,612,606 13,697,026,260 (10,569,400,392)	26,322,460,773 20,389,557,802 23,050,311,315 5,757,810,700 4,664,626,701 (11,102,999,699)	27,351,959,298 19,710,944,304 25,215,840,687 5,407,923,691 4,267,041,184 (10,633,190,656)	27,556,696,928 20,970,760,003 28,591,349,752 4,619,150,713 6,555,479,760 (10,147,724,269)	27,267,204,493 34,146,635,006 28,634,028,619 4,002,703,029 (14,840,617,729) (12,270,695,235)
GAAP-adjusted Net Worth	468,279,776,257	494,841,712,392	557,551,947,951	596,021,334,139	524,232,814,060
Ratio of GAAP Net Worth to Statutory Surplus	1.20	1.16	1.15	1.15	1.15

Source: ISO

### NCRB - PRO FORMA STATUTORY RETURN

#### DWELLING EXTENDED COVERAGE

	Pre-Tax	Tax Liability	Post-Tax
. Premiums	100.00%		
Loss & Loss Adjustment Expense	37.66%		
Commission & Brokerage	12.20%		
	2.75%		
General Expense	2.60%		
Other Acquisition Expense	1.90%		
Taxes, Licenses and Fees Net Cost of Reinsurance	33.39%		
2. Pro-Forma Underwriting Profit	9.50%		
3. Installment Fee Income	0.71%		
A. P. Lidan		3.57%	
<ul><li>4. Regular tax</li><li>5. Additional tax due to TRA</li></ul>		0.33%	
6. Return from Underwriting (post-tax)			6.31%
Transaction	1.76%		
7. Investment Gain on Insurance Transaction Less Investment Income on Agents Balances	0.52%	<b>.</b>	
Net Investment Gain on Insurance Transaction	1.24%	6 0.29%	0.95%
8. Statutory Return as a % of Premium (post-tax)			7.26%
9. Premium-to-Net Worth Ratio			0.980
10. Statutory Return as a % of Net Worth (post-tax)			7.11%
Note: Lines (1) to (8) are all expressed as a % of premium.			

#### Assumptions

(-)	UW Tax Rate =	35.00%
		23.41%
` '	Inv. Income Tax Rate =	3.96%
(c)	Inv. Yield =	1.14
(d)	P/S Ratio =	
	NW/S Ratio =	1.16
`'	Installment Fee Income=	0.71%
(-)		0.33%
107		33,39%
(h)	Net Cost of Reinsurance	55,5570

#### NOTES TO EXHIBIT RB-19, Page 1

- 1. The expense provisions are those used on page C-3 of Exhibit RB-1.
- 2. Selected by Rate Bureau.
- 3. See assumption (f) below.
- 4.  $[(2)+(3)] \times (a)$ .
- 5. See assumption (g) below.
- 6. (2) + (3) [(4) + (5)].
- 7. Pages 7-10. Investment income on agents' balances equals 0.131 x 1.032 x (c), where 0.131 is agents' balances for premiums due less than 90 days and 1.032 is the factor to include the effects of agents' balances or uncollected premiums overdue for more than 90 days.
- 8. (6) + (7).
- 9. (d)/(e).
- 10. (8) x (9).

#### **ASSUMPTIONS**

- (a) Internal Revenue Code.
- (b) See RB-19, pp. 11-13; 1-avg post-tax yield/avg pre-tax yield.
- (c) See RB-19, pp. 11-13; average of current and embedded yields.
- (d) See RB-19, p. 14
- (e) See RB-19, p. 15.
- (f) See RB-18, p. 3.
- (g) See RB-19, pp. 4-6
- (h) See prefiled testimony.

## NCRB - PRO FORMA STATUTORY RETURN ADJUSTED TO INCLUDE INVESTMENT INCOME ON SURPLUS DWELLING EXTENDED COVERAGE

		Pre-Tax	Tax Liability	Post-Tax
. I	Premiums	100.00%	•	
	Loss & Loss Adjustment Expense	37.66%		
	Commission & Brokerage	12.20%		
	General Expense	2.75%		
	Other Acquisition Expense	2.60%		
	Taxes, Licenses and Fees	1.90%		
	Net Cost of Reinsurance	33.39%		
2.	Pro-Forma Underwriting Profit	9.50%		
3.	Installment Fee Income	0.71%		
4.	Regular tax		3.57%	
	Additional tax due to TRA		0.33%	
6.	Return from Underwriting (post-tax)			6.31%
	Investment Gain on Insurance Transaction	1.76%		
7.	Less Investment Income on Agents Balances	0.52%		
	Net Investment Gain on Insurance Transaction	1.24%	0.29%	0.95%
8.	Investment Gain on Surplus (Including Prepaid Expense Adjustment)	4.58%	1.07%	3.51%
9.	Total Return as a % of Premium (post-tax)			10.77%
10.	Premium-to-Net Worth Ratio			0.980
	Total Return as a % of Net Worth (post-tax)			10.55%

#### Assumptions

(a)	UW Tax Rate =	35.00%
(a) (b)	Inv. Income Tax Rate =	23.41%
	Inv. Yield =	3.96%
		1.14
( - )	NW/S Ratio =	1.16
1.	Installment Fee Income=	0.71%
(-/	Additional TRA tax=	0.33%
(g)	Net Cost of Reinsurance	33.39%
(11)	Net Cost of Remadiance	

#### NOTES TO EXHIBIT RB-19, Page 1A

- 1. The expense provisions are those used on page C-3 of Exhibit RB-1.
- 2. Selected by Rate Bureau.
- 3. See assumption (f) below.
- 4.  $[(2)+(3)] \times (a)$ .
- 5. See assumption (g) below.
- 6. (2) + (3) [(4) + (5)].
- 7. Pages 7-10. Investment income on agents' balances equals  $0.131 \times 1.032 \times (c)$ , where 0.131 is agents' balances for premiums due less than 90 days and 1.032 is the factor to include the effects of agents' balances or uncollected premiums overdue for more than 90 days.
- 8. (c)  $\times$  [1/(d) + (0.6350  $\times$  0.4373)], where 0.6350 is the prepaid expense ratio from page 7 and 0.4373 is the unearned premium reserve to premium ratio from page 7.
- 9. (6) + (7) + (8).
- 10. (d)/(e).
- 11. (9) x (10).

#### **ASSUMPTIONS**

- (a) Internal Revenue Code.
- (b) See RB-19, pp. 11-13; 1-avg post-tax yield/avg pre-tax yield.
- (c) See RB-19, pp. 11-13; average of current and embedded yields.
- (d) See RB-19, p. 14
- (e) See RB-19, p. 15.
- (f) See RB-18, p. 3.
- (g) See RB-19, pp. 4-6
- (h) See prefiled testimony.

## NORTH CAROLINA DWELLING FIRE/EC INSTALLMENT PAYMENT INCOME (in thousands)

Year	Inst. Charges as a % of Prem.
2007	0.86%
2006	0.68%
2005	0.65%
2004	0.68%
2003	0.70%
Average	0.71%
Selected Value	0.71%

Source: From ISO.

## NORTH CAROLINA DWELLING EXTENDED COVERAGE

#### ESTIMATION OF TRA TAXABLE INCOME

1 Earned Premium (current year)	100.00%
2 UEPR (previous year)	39.32%
3 UEPR (current year)	44.03%
4 Increase = $(3)$ - $(2)$	4.71%
5 20% of Increase = Taxable Income	0.94%
6 Tax Liability = $(5)x.35$	0.33%
7 Unpaid Losses (current year)	2.51%
8 Discounted unpaid losses (current year)	2.43%
9 Unpaid Losses (previous year)	2.24%
10 Discounted unpaid losses (previous year)	2.17%
11 Additional Income	0.01%
12 Tax Liability	0.00%
Other Tax Liabilities	
13 UEP	0.33%
14 Discounting of Loss Reserves	0.00%
15 Total	0.33%

#### NORTH CAROLINA DWELLING EXTENDED COVERAGE CALCULATION OF TAXABLE INCOME

(1)	(2)	(3)	(4)	(5)
AY Avg	AY Pay	Percent	Total	Unpaid
Acc Date	Pattem	Unpaid	Losses	Losses
0.5 1.5	94,80% 99,00%	5.20% 1.00%	37.658 33,629	2.0 0,3
2.5	99.60%	0.40%	30.032	0,1
3.5	99,80%	0.20%	26.819	0.1
4.5	99.90%	0.10%	23.950	0,0
5,5	99.90%	0.10%	21,388	0.0
6.5	100.00% 100.00%	0,00% 0,00%	19.100 17.057	0.0
7.5 8.5	100.00%	0.00%	15.232	0.0
9,5	100,00%	0.00%	13,603	0.0
10.5	100.00%	0.00%	12,148	0.0
11,5	100.00%	0.00%	10.848	0.0
12,5	100.00%	0.00%	9,688	0.0
13.5	100.00%	0.00% 0.00%	8,651 7,726	0.0
14.5 15,5	100.00% 100.00%	0.00%	6.899	0.0
16.5	100,00%	0,00%	6.161	0.0
17.5	100,00%	0.00%	5.502	0,0
18.5	100.00%	0.00%	4.914	0,0
19.5	100,00%	0.00%	4.388	0.0
20.5	100,00% 100,00%	0.00% 0.00%	3.919 3.499	0.0
21.5 22.5	100.00%	0.00%	3,499	0.0
23.5	100.00%	0.00%	2,791	0.0
24.5	100.00%	0.00%	2,492	0.0
25.5	100.00%	0.00%	2,226	0.0
26.5	100.00%	0.00%	1,988 1,775	0.0
27.5	100,00% 100,00%	0,00% 0,00%	1.775	0.0
28.5 29.5	100,00%	0.00%	1,415	0.0
30.5	100.00%	0.00%	1.264	0.0
31.5	100.00%	0,00%	1.129	0,0
32,5	100,00%	0.00%	1,008	0.0
33.5	100.00%	0.00% 0.00%	0,900 0,804	0.0
34,5 35.5	100.00% 100.00%	0.00%	0.718	0.0
36.5	100.00%	0,00%	0.641	0.0
37,5	100.00%	0,00%	0.573	0.0
38.5	100,00%	0,00%	0.511	0.0
39.5	100.00%	0.00%	0.457	0.0
40,5 41,5	100,00% 100,00%	0.00% 0.00%	0.408 0.364	0.0
42.5	100,00%	0.00%	0.325	0.0
43.5	100,00%	0.00%	0.290	0.0
44.5	100,00%	0,00%	0.259	0,0
45.5	100,00%	0.00%	0.232	0.0
46.5	100.00%	0,00% 0,00%	0,207 0,185	0.0
47.5 48,5	100:00%	0.00%	0,165	0.0
49.5	100,00%	0.00%	0.147	0.0
50.5	100,00%	0.00%	0.132	0.0
51.5	100.00%	0.00%	0.117	0,0
52.5	100.00%	0.00%	0,105 0,094	0.0
53.5 54.5	100,00% 100,00%	0,00% 0,00%	0,094	0.0
55.5	100.00%	0.00%	0.075	0.0
56,5	100.00%	0.00%	0.067	0.0
57.5	100.00%	0.00%	0.060	0.0
58.5	100.00%	0.00%	0.053	0.0
59.5	100.00%	0,00%	0,048 0,042	0.0 0.0
60.5	100,00% 100,00%	0,00% 0,00%		0.0
62,5	100.00%	0,00%		0.0
63.5	100.00%	0,00%		0.0
64.5	100.00%	0.00%		0.0
65.5	100.00%	0.00%		0.0
66.5	100.00%		0.022	0.0
Sum	,			2.51
	-			

(6)	(7)	(8)
AY at current year end	Discount Factor	Discounted Weight
	0,966430	1.9
2009 2008	0,966174	0.3
2007	0.980298	0.1
2006	0,980298	0.1
2005	0.980298 0.980298	0.0
2004 2003	0,980298	0.0
2002	0.980298	0.0
2001	0.980298	0.0
2000	0.980298	0.0
1999 1998	0.980298 0.980298	0.0
1997	0.980298	0.0
1996	0.980298	0.0
1995	0,980298	0.0
1994 1993	0.980298 0.980298	0.0
1993	0.980298	0.0
1991	0.980298	0.0
1990	0,980298	0.0
1989	0,980298 0,980298	0.0
1988 1987	0,980298	0.0
1986	0,980298	0,0
1985	0.980298	0.0
1984	0.980298	0.0
1983 1982	0.980298	0.0
1981	0.980298	0.0
1980	0.980298	0,0
1979	0,980298	0.0
1978	0.980298	0.0 0.0
1977 1976	0,980298 0,980298	0.0
1975	0.980298	0.0
1974	0.980298	0.0
1973	0.980298	0.0
1972 1971	0,980298 0,980298	0.0 0.0
1970	0.980298	0.0
1969	0.980298	0.0
1968	0.980298	0.0
1967	0.980298 0.980298	0.0
1966 1965	0.980298	0.0
1964	0.980298	0,0
1963	0.980298	
1962	0,980298 0,980298	
1961 1960	0,980298	
1959	0.980298	0,0
1958	0.980298	
1957	0,980298	
1956 1955	0,980298 0,980298	
1954	0.980298	
1953	0.980298	0.0
1952	0.980298	
1951	0.980298	
1950 1949		
1948	0.980298	
1947	0,98029	3 0.0
1946	0.98029	
1945 1944	0.98029	
1944	0.98029	
		2,43

Γ	(9)	(10)		(11)	(12)	
	AY at	• •		scount	Discour	
prio	r year end	Weight	_ <u>F</u>	actor	Weigl	ht
						-
	2008	1,74873238	0	966430		1.7
	2007	0.30031953		966174		0.3
	2006	0.10727713	0	980298		0.1
1	2005	0.04790057	0	.980298		0.0
Į	2004	0.0213882		.980298		0.0
1	2003	0.0191002		.980298		0.0
1	2002	0		.980298		0.0
1	2001 2000	0		.980298		0.0
İ	1999	0		,980298		0.0
	1998	0		980298		0.0
1	1997	0		.980298		0.0
1	1996	0	0	.980298		0,0
1	1995	0		,980298		0.0
1	1994	0		,980298		0.0
	1993	0		0,980298		0.0
1	1992	0		),980298		0.0
	1991	0		),980298 ),980298		0.0
1	1990 1989	0		0.980298		0.0
	1988	0		0.980298		0,0
1	1987	0		0.980298		0.0
1	1986	0	(	0,980298		0,0
1.	1985	0	(	0.980298		0.0
1	1984	0	-	0.980298		0.0
	1983	0		0.980298		0.0
	1982	0		0.980298		0.0
1	1981	0		0.980298 0.980298		0.0
ł	1980 1979			0.980298 0.980298		0.0
1	1979	0		0.980298		0.0
ļ	1977			0.980298		0.0
	1976			0.980298		0.0
	1975	0		0.980298		0.0
1	1974			0.980298		0.0
1	1973			0.980298		0.0
1	1972			0.980298 0.980298		0.0
	1971 1970			0.980298		0.0
	1969			0.980298		0.0
1	1968			0.980298		0.0
-	1967	7 0	)	0.980298	;	0.0
-	1966	5 0	)	0.980298	}	0.0
ı	1965			0.980298		0.0
1	1964			0.980298		0,0
- [	1963			0.980298		0.0
-	1962			0.980298		0.0
1	1960	3		0.980298		0,0
-	1959			0.980298		0,0
-	1958		)	0.980298		0.0
-	195		)	0.98029	3	0.0
١	195	6 (	)	0.98029	в.	0,0
	195		0	0.98029		0.0
1	195		0	0.98029		0.0
	195		0	0.98029		0.0
١	195 195		0	0.98029		0.0
	195	-	0	0.98029		0,0
	193		0	0.98029		0.0
	194	-	0	0.98029		0.0
	194		0	0,98029	8	0.0
	194	6	0	0.98029		0.0
	194	-	0	0.98029		0,0
	194		0	0.98029		0.0
	194	3	0	0.98029	B	0,0
	Sur	m				2.17
	Jui	***				

#### NOTES TO PAGES 4 AND 5

#### Page 4

- 1 Current year earned premium
- 2 Estimated prior year UEPR as percent of current year earned premium given assumed premium growth rate
- 3 Annual Statement, page 15, UEPR/Earned Premium for all companies writing this line of insurance in North Carolina.
- 4 Line (3) line (2)
- 5 Line (4) x .20.
- 6 Line (5) x .35.
- 7 Unpaid current-year losses at year-end as a percent of premium. Sum of Page 5, Column (5).
- 8 Discounted unpaid current-year losses at year-end as a percent of premium. Sum of Page 5, Column (8).
- 9 Unpaid prior-year losses at year-end as a percent of premium. Sum of Page 5, Column (5) divided by (1+ assumed growth rate).
- 10 Discounted unpaid prior-year losses at year-end as a percent of premium. Sum of Page 5, Column (12).
- 11 Line (7) Line (8) [Line (9) Line (10)]
- 12 Line (11) x .35
- 13 Line (6)
- 14 Line (12)
- 15 Line (13) + Line (14)

#### Page 5

- 1 Midpoint of number of years since end of accident period.
- 2 Accident year payout pattern developed from policy year developed losses.
- 3 1 Column (2)
- 4 Losses, given assumed historical growth rate.
- 5 Column (3) x Column (4)
- 6 Accident Year at current year end
- 7 Discount factor per IRS Regulations.
- 8 Column (5) x Column (7)
- 9 Accident Year at prior year end
- 10 Column (3), previous period x Column (4), current period
- 11 Discount factor per IRS Regulations.
- 12 Column (10) x Column (11)

## NCRB INVESTMENT INCOME CALCULATION DWELLING EXTENDED COVERAGE

Projected Investment Earnings on Loss, Loss Adjustment Expense and Unearned Premium Reserves

		·
A. UNEARNED PREMIUM RESERVES		1 000 000
1. Direct Earned Premiums	40 500/	1,000,000
2. Mean UEPR	43.73%	437,300
3. Deductions for prepaid expenses		
Commissions & Brokerage	12.20%	
Taxes, Licenses & Fees	1.58%	
One Half Other Acquisition Expense	1.30%	to the latest the second
One Half General Expense	1.38%	
Cost of Reinsurance	47.04%	
Total	63.50%	
4. Deduction for Prepaid Expenses: (2) x (3)		277,682
5. Net UEPR Subject to Inv (4) - (2)		159,618
B. Loss and Loss Expense Reserves		1 000 000
1. Direct Earned Premium		1,000,000
2. Expected Inc L & LAE to Premium Ratio	0.3765793	376,579
3. Expected Mean L&LAE Reserve to Inc. L & LAE Ratio	0.754	283,765
C. Net PH Funds Subj to Inv		443,383
(A5 + B3)		445,565
D. Average Rate of Return	•	3.96%
E. Investment Earnings from Net Reserves (D) x (E)		17,558
F. Average Rate of Return as a Percent of Direct Earned Premium (E) / (A1)		1.76%

Page 8

## NORTH CAROLINA DWELLING EXTENDED COVERAGE

## ESTIMATED INVESTMENT EARNINGS ON UNEARNED PREMIUM RESERVES AND ON LOSS RESERVES

#### **EXPLANATORY NOTES**

#### Line A-1

All calculations are displayed per \$1,000,000 direct earned premiums.

#### Line A-2

The mean unearned premium reserve is determined by multiplying the direct earned premiums in line (1) by the ratio of the mean unearned premium reserve to the collected earned premium for calendar year ended 12/31/current year for all companies writing Dwelling insurance in North Carolina. These data are from page 15 of the Annual Statement.

1. Collected Earned Premium for Calendar Year ended 12/31/current year	171,488,046
2. Unearned Premium Reserve as of 12/31/prior year	74,473,320
3. Unearned Premium Reserve as of 12/31/current year	75,504,872
4. Mean Unearned Premium Reserve 1/2 [(2) + (3)]	74,989,096
5. Ratio (4) ÷ (1)	0.4373

#### Line A-3

Deduction for prepaid expenses:

Production costs and a large part of the other company expenses in connection with the writing and handling of Dwelling policies, exclusive of claim adjustment expenses, are incurred when the policy is written and before the premium is paid. The deduction for these expenses is determined from data provided by the NCRB for the year ended 12/31/current year.

### NORTH CAROLINA DWELLING EXTENDED COVERAGE

## ESTIMATED INVESTMENT EARNINGS ON UNEARNED PREMIUM RESERVES AND ON LOSS RESERVES

#### **EXPLANATORY NOTES**

#### Line B-2

The expected loss and loss adjustment expense ratio reflects the expense provisions for the year ended 12/31/current year.

#### Line B-3

The mean loss reserve is determined by multiplying the incurred losses in line (2) by the North Carolina ratio of the mean loss reserves to the incurred losses for Dwelling insurance. This ratio is based on North Carolina companies' Page 15 annual statement data and has been adjusted to include loss adjustment expense reserves.

1	Incurred Losses for CY	2003	79,674,595
2	Incurred Losses for CY	2004	47,052,222
3	Incurred Losses for CY	2005	40,020,088
4	Incurred Losses for CY	2006	50,433,255
5	Incurred Losses for CY	2007	30,306,506
6	Loss Reserves as of 12/31	2002	27,203,722
7	Loss Reserves as of 12/31	2003	33,107,270
8	Loss Reserves as of 12/31	2004	29,107,220
9	Loss Reserves as of 12/31	2005	28,656,583
10	Loss Reserves as of 12/31	2006	37,122,031
11	Loss Reserves as of 12/31	2007	30,883,741
12	Mean Loss Reserve	2003	30,155,496
13	Mean Loss Reserve	2004	31,107,245
14	Mean Loss Reserve	2005	28,881,902
15	Mean Loss Reserve	2006	32,889,307
16	Mean Loss Reserve	2007	34,002,886
17	Loss Reserve Ratio	2003	0.378
18	Loss Reserve Ratio	2004	0.661
19	Loss Reserve Ratio	2005	0.722
20	Loss Reserve Ratio	2006	0.652
21	Loss Reserve Ratio	2007	1.122
22	Average Loss Reserve Rati	0	0.707
	5		
23	Ratio of LAE Reserves to	Loss Reserves	0.236
24	Ratio of Incurred LAE to	Incurred Losses	0.160
25	Loss and LAE Reserve/In	curred Loss&LAE	0.754

### NORTH CAROLINA DWELLING EXTENDED COVERAGE

## ESTIMATED INVESTMENT EARNINGS ON UNEARNED PREMIUM RESERVES AND ON LOSS RESERVES

#### **EXPLANATORY NOTES**

#### Line E

The average rate of return is calculated as the arithmetic mean of the embedded and current yields. The embedded yield is the sum of two ratios: the most recent ratio of investment income to invested assets, plus the ten year average ratio of capital gains to invested assets (see page 12). The current yield is the estimated, currently available rate of return (including income and expected capital gains) on the property/casualty industry investment portfolio (see page 11).

Embedded Yield =	4.17% + 0.58% =	4.75%
Current Yield =		3.18%
Δverage =		3.96%

PORTFOLIO YI	ELD AND TAX RA	ATE - CURREI	NT YIELD	
. (1)	(2)	(3)	(4)	(5)
.,		Estimated		Estimated
	Percent	Prospective		Prospective
	of	Pre-Tax	Tax	Post-Tax
Investable Asset	Assets	Return	Rate	Return
Bonds				
U.S. Govt	9.47%	2.18%	35.00%	1.42%
States & territories	14.48%	2.59%	5.25%	2.45%
Special revenue	25.58%	2.81%	5.25%	2.66%
Public Utilities	1.38%	2.93%	35.00%	1.90%
Industrial	22.09%	2.68%	35.00%	1.74%
Preferred stock	1.84%	1	14.18%	4.99%
Common stock	15.07%	1 1	30.39%	6.68%
Mortgage Loans	0.42%		35.00%	
Real estate	0.92%	4.08%	35.00%	
Cash & short-term invs.	8.74%	0.14%	35.00%	0.09%
Rate of Return Pre-Inv Exp	100.00%	3.56%	23.35%	2.73%
Investment Expenses		0.38%	35.00%	0.25%
Portfolio Rate of Return		3.18%	21.96%	2.48%

#### Sources:

Various issues of Federal Reserve Statistical Release, H.15(519).

Mergent Bond Record.

Standard & Poor's CreditWeek.

Value Line Investment Survey, Part II.

Ibbotson Associates, "SBBI Valuation Edition 2010 Yearbook."

Ibbotson and Siegel, AREUEA Journal, 1984.

A.M. Best's Aggregates & Averages, 2009 edition.

	CLD AND TAX RAT DED YIELD	E
	Income	Tax Rate
Bonds		
Taxable	26,065,645	35.00%
Non-Taxable	16,923,546	5.25%
Stocks		
Taxable	5,244,126	14.18%
Non-Taxable	1,234,199	5.25%
Mortgage Loans	312,607	35.00%
Real Estate	1,772,757	35.00%
Contract Loans	692	35.00%
Cash / Short Term Inv.	2,660,197	35.00%
All Other	4,262,121	35.00%
Total	58,475,890	23.89%
Inv. Expenses	4,710,400	35.00%
Net Inv. Income	53,765,490	22.92%
Mean Invested Assets	1,288,393,875	
Inv. Inc. Yield Rate	4.17%	22.92%
Capital Gains (10 yr. avg) (% Of Inv. Assets)	0.58%	35.00%
Invest. Yield Rate (pre-tax)	4.75%	24.38%
Invest. Yield Rate (post-tax)	3.59%	

Source: Best's Aggregates and Averages, 2009 Edition, p. 12 (Exhibit of Net Investment Income, Col. 2 (Earned During Year)).

Capital Gains: RB-19, page 13

#### CAPITAL GAINS OR LOSSES AS A PERCENT OF MEAN ASSETS

(All amounts in thousands of dollars)

	Mean Total	R	ealized
Calendar	Invested	Cap	ital Gains
Year	Assets	Amount	Percent
1999	797,920,622	13,016,157	1.63%
2000	794,195,460	16,204,649	2.04%
2001	785,530,275	6,630,679	0.84%
2002	815,037,267	2,770,997	0.34%
2003	908,024,056	6,280,196	0.69%
2004	1,018,810,319	9,113,199	0.89%
2005	1,120,026,040	12,194,108	1.09%
2006	1,217,345,564	3,587,228	0.29%
2007	1,297,478,130	9,031,778	0.70%
2008	1,288,393,875	(21,018,623)	-1.63%
Total	10,042,761,606	57,810,368	0.58%

<sup>\*</sup>Mean total invested assets is the average of the current year and prior year values of total invested assets (annual statement page 2, Line 9).

Source: "Best's Aggregates & Averages--Property-Casualty," 1998-2001 from 2002 edition

Invested Assets p 188, Realized Capital Gains p 190 2002 from 2003 edition

Invested Assets p 2, Realized Capital Gains p 4 2003 from 2004 edition

Invested Assets p 138, Realized Capital Gains p 140 2003 from 2004 edition

Invested Assets p 138, Realized Capital Gains p 140 2004 from 2005 edition

Invested Assets p 152, Realized Capital Gains p 154 2005 from 2006 edition

Invested Assets p 152, Realized Capital Gains p 154 2006 from 2007 edition

Invested Assets p 156, Realized Capital Gains p 158 2007 from 2008 edition

Invested Assets p 156, Realized Capital Gains p 158 2008 from 2009 edition

Invested Assets p 140, Realized Capital Gains p 142

## NORTH CAROLINA DWELLING FIRE AND EXTENDED COVERAGE

#### PREMIUM-TO-SURPLUS RATIOS

		Extended
Year	<u>Fire</u>	<u>Coverage</u>
1999	1.054	1.013
2000	1.047	1.095
2001	1.153	1.198
2002	1.302	1.330
2003	1.271	1.244
2004	1.297	1.288
2005	1.225	1.196
2006	1.001	1.010
2007	0.948	0.967
2008	1.003	1.034
	•	
Five-Year Average	1.095	1.099
Ten-Year Average	1.130	1.137
Ton-Teat Average	1.150	1.15,

#### Notes:

- 1 Ratios based on net premium written.
- 2 From Best's Data Service and Best's Aggregate and Averages.
- 3 Top 30 groups each year.

NORTH CAROLINA DWELLING FIRE/EC INSURANCE CALCULATION OF GAAP NET WORTH TO SURPLUS RATIO

	2004	2005	2006	2007	2008
Policyholder Surplus	391,294,425,276	425,759,944,800	486,231,429,443	517,875,621,253	457,293,555,877
+ Deferred Acquisition Costs + Non-Admitted DTA Provision + Non-admitted Assets (non-tax part) + Provision for Reinsurance + Provision for FASB 115(after-tax) - Surplus Notes	25,336,389,277 19,919,892,745 22,629,830,486 5,971,612,606 13,697,026,260 (10,569,400,392)	26,322,460,773 20,389,557,802 23,050,311,315 5,757,810,700 4,664,626,701 (11,102,999,699)	27,351,959,298 19,710,944,304 25,215,840,687 5,407,923,691 4,267,041,184 (10,633,190,656)	27,556,696,928 20,970,760,003 28,591,349,752 4,619,150,713 6,555,479,760 (10,147,724,269)	27,267,204,493 34,146,635,006 28,634,028,619 4,002,703,029 (14,840,617,729) (12,270,695,235)
GAAP-adjusted Net Worth	468,279,776,257	494,841,712,392	557,551,947,951	596,021,334,139	524,232,814,060
Ratio of GAAP Net Worth to Statutory Surplus Five Year Average	1.20	1.16	1.15	1.15	1.15

Source: ISO