

ARCH CAPITAL GROUP LTD.  
Form 4  
February 17, 2006

**FORM 4** UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
APPEL PETER A

2. Issuer Name and Ticker or Trading Symbol  
ARCH CAPITAL GROUP LTD.  
[ACGL]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)  
02/16/2006

Director  10% Owner  
 Officer (give title below)  Other (specify below)

C/O ARCH CAPITAL GROUP LTD., 45 REID STREET, 4TH FLOOR

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

HAMILTON, D0 HM 12

(City) (State) (Zip)

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)	
				(A) or (D)	Price			
				Code	V	Amount		
Common Shares, \$.01 par value per share	02/16/2006		M	25,000	A	\$ 21	226,843	D
Common Shares, \$.01 par value per share	02/16/2006		M	4,347	A	\$ 23	231,190	D

Common  
Shares,  
\$.01 par 02/16/2006 S 29,347 D \$ 201,843 D  
value per  
share 55.7

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

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(9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Amount or Number of Shares
Stock Option (right to buy)	\$ 21	02/16/2006		M	25,000	<u>(1)</u> 05/05/2007	Common Shares, \$0.01 par value per share	25,000
Stock Option (right to buy)	\$ 23	02/16/2006		M	4,347	<u>(1)</u> 11/18/2007	Common Shares, \$0.01 par value per share	4,347

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
APPEL PETER A C/O ARCH CAPITAL GROUP LTD. 45 REID STREET, 4TH FLOOR HAMILTON, D0 HM 12	X			

## Signatures

/s/ Louis T. Petrillo Attorney  
in fact

02/17/2006

\_\_Signature of Reporting Person

Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Represents an employee stock option that became exercisable in five equal annual installments, commencing on the first anniversary of the date of grant.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.