

SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No. 3)\*

TGC Industries, Inc.

\_\_\_\_\_  
(Name of Issuer)

Common Stock, \$0.10 Par Value

\_\_\_\_\_  
(Title of Class of Securities)

892417916

\_\_\_\_\_  
(CUSIP Number)

December 31, 2000

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(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which  
this Schedule is filed:

Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a  
reporting person's initial filing on this form with respect to  
the subject class of securities, and for any subsequent amendment  
containing information which would alter the disclosures provided  
in a prior cover page.

The information required in the remainder of this cover page  
shall not be deemed to be "filed" for the purpose of Section 18  
of the Securities Exchange Act of 1934 ("Act") or otherwise  
subject to the liabilities of that section of the Act but shall  
be subject to all other provisions of the Act (however, see the  
Notes).

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(1) NAME OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Special Situations Fund III, L.P. ("The Fund") F13-3737427  
MGP Advisers Limited Partnership\* ("MGP") F13-3263120

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(2) CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See  
Instructions)

(a) | |  
(b) |X|

-----  
(3) SEC USE ONLY

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(4) CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

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NUMBER OF      (5) SOLE VOTING POWER      See Marx/Greenhouse  
SHARES

BENEFICIALLY      (6) SHARED VOTING POWER      None  
OWNED BY

EACH      (7) SOLE DISPOSITIVE POWER      See Marx/Greenhouse  
REPORTING

PERSON WITH:      (8) SHARED DISPOSITIVE POWER      None  
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(9) AGGREGATE AMOUNT BENEFICALLY OWNED BY EACH REPORTING PERSON

151,200 (includes 148,300 convertible preferred)

(10) CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions)

(11) PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

6.1

(12) TYPE OF REPORTING PERSON (See Instructions)

IV/IA

\* AWM Investment Company, Inc., a Delaware corporaiton is the General Partner of this entity.

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(1) NAME OF REPORTING PERSON  
I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Special Situations Cayman Fund, L.P. ("CAY") 98-0132442  
AWM Investment Comapny, Inc. ("AWM") 11-3086452

(2) CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) | |  
(b) |X|

(3) SEC USE ONLY

(4) CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

NUMBER OF SHARES	(5) SOLE VOTING POWER	See Marx/Greenhouse
BENEFICIAALLY OWNED BY EACH REPORTING PERSON WITH:	(6) SHARED VOTING POWER	None
	(7) SOLE DISPOSITIVE POWER	See Marx/Greenhouse
	(8) SHARED DISPOSITIVE POWER	None

(9) AGGREGATE AMOUNT BENEFICALLY OWNED BY EACH REPORTING PERSON  
50,000 (all convertible preferred)

(10) CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions)

(11) PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

2.1

(12) TYPE OF REPORTING PERSON\*

IV/IA

(1) NAME OF REPORTING PERSON  
I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY).

Austin W. Marxe  
David M. Greenhouse

(2) CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) | |  
(b) |X|

(3) SEC USE ONLY

(4) CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	(5) SOLE VOTING POWER	201,200
	(6) SHARED VOTING POWER	None
	(7) SOLE DISPOSITIVE POWER	201,200
	(8) SHARED DISPOSITIVE POWER	None

(9) AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

201,200 (all convertible preferred)

(10) CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions)

(11) PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

7.9

(12) TYPE OF REPORTING PERSON\*

IN

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Item 1.

(a) Name of Issuer: TGC Industries, Inc.  
(b) Address of Issuer's Principal Executive Offices:  
1304 Summit Ave., Ste 2, Plano, TX 75074

Item 2.

(a) Name of Person Filing: This statement is filed on behalf of (i) Special Situations Fund III, L.P., a Delaware limited partnership ("SSF III"); (ii) Special Situations Cayman Fund, L.P., a Cayman Islands limited partnership (the "Cayman Fund"); (iii) MGP Advisers Limited Partnership, a Delaware limited partnership, ("MGP"); (iv) AWM Investment Company, Inc., a Delaware corporation ("AWM"); (v) Austin W. Marxe and (vi) David Greenhouse. Each of the foregoing is hereinafter individually referred to as a "Reporting Person" and collectively as the "Reporting Persons."

(b) Address of Principal Business Office or, if none, Residence: The principal office and business address of the Reporting Persons, other than the Cayman Fund, is 153 East 53 Street, New York, New York 10022. The principal office and business address of the Cayman Fund is c/o CIBC Bank and Trust Company (Cayman) Limited, CIBC Bank Building, P.O. Box 694, Grand Cayman, Cayman Islands, British West Indies.

(c) Citizenship: SSF III and MGP are Delaware limited partnerships. The Cayman Fund was formed under the laws of the Cayman Islands and AWM is a Delaware corporation. Austin

The principal business of SSF III and the Cayman Fund (individually, a "Fund" and, collectively, the "Funds") is to invest in, sell, convey, transfer, exchange and otherwise trade in principally equity and equity related securities. The principal business of MGP is to act as general partner of and investment adviser to SSF III. The principal business of AWM is to act as the general partner of MGP and as the general partner of and the investment adviser to the Cayman Fund. MGP and AWM are referred to herein, individually, as an "Adviser" and, collectively, as the "Advisers." The principal occupation of Austin W. Marxe and David Greenhouse is to serve as officers, directors and members or principal shareholders of the Advisers.

2(d) Title of Class of Securities: See cover sheets.

2(e) CUSIP Number: See cover sheets.

Item 3. If this statement is filed pursuant to §240.13d-1(b) or 240.13d-2(b), check whether the person filing is a:

- (a) ( ) Broker or Dealer registered under section 15 of the Act;
- (b) ( ) Bank as defined in section 3(a) (6) of the Act;
- (c) ( ) Insurance Company as defined in section 3(a) (19) of the Act;
- (d) (x) Investment Company registered under section 8 of the Investment Company Act of 1940;
- (e) (x) An Investment Adviser in accordance with §240.13d

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-1(b)(I)(ii)(E);

- (f) ( ) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(I)(ii)(F);
- (g) (x) A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) ( ) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
- (i) ( ) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940;
- (j) ( ) Group, in accordance with §240.13d-1(b)(1)(ii)(J).

See Exhibit A attached hereto.

Item 4. Ownership:

(a) Amount Beneficially Owned: 201,200 shares of Convertible preferred stock are beneficially owned by Austin W. Marxe and David Greenhouse; of which 2,900 common shares and 148,300 convertible preferred shares are owned by SSF III and 50,000 shares of convertible preferred are owned by the Cayman Fund.

(b) Percent of Class: 7.9 percent of the Common Stock are beneficially owned by Austin Marxe and David Greenhouse. 6.1 percent of the Common Stock are beneficially owned by SSF III and 2.1 percent are beneficially owned by the Cayman Fund.

(c) Number of Shares as to which the person has Rights to Vote and/or Dispose of Securities: SSF III, MGP, the Cayman Fund and AWM have sole power to vote or to direct

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the vote and to dispose or to direct the disposition of all securities reported hereby which are respectively beneficially owned by each Fund and its Adviser.

Austin Marxe and David Greenhouse have shared power to vote or to direct the vote of and to dispose or to direct the disposition of securities reported hereby which are beneficially owned by Austin Marxe and David Greenhouse by virtue of being Executive Officers of the Investment Advisers.

Item 5. Ownership of Five Percent or Less of a Class: If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

Item 6. Ownership of More than Five Percent on Behalf of Another Person: SSF III and the Cayman Fund as owners of the securities in question, have the right to receive any dividends from, or proceeds from the sale of, such securities.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security being Reported on By the Parent Holding Company: See Exhibit A attached hereto.

Item 8. Identification and Classification of Members of the Group: Not applicable

Item 9. Notices of Dissolution of Group: Not applicable.

Item 10. Certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 12, 2001

SPECIAL SITUATIONS FUND III, L.P.

By:/s/ Austin W. Marxe  
Austin W. Marxe  
Managing Director

MGP ADVISERS LIMITED PARTERSHIP

By:/s/ Austin W. Marxe  
Austin W. Marxe  
President and Chief Executive Officer

SPECIAL SITUATIONS CAYMAN FUND, L.P.

By: /s/ Austin W. Marxe  
Austin W. Marxe  
Managing Director

AWM INVESTMENT COMPANY, INC.

By: /s/ Austin W. Marxe  
Austin W. Marxe  
President and CEO

/s/ Austin W. Marxe  
AUSTIN W. MARXE

/s/David M Greenhouse

EXHIBIT A

This Exhibit explains the relationship between the Reporting Persons. MGP Advisers Limited Partnership (MGP), a Delaware limited partnership, is the general partner of the Special Situations Fund III, L.P., a Delaware Limited Partnership. AWM Investment Company, Inc., a Delaware corporation, is the general partner of MGP and the general partner of and investment adviser to the Cayman Fund. Austin W. Marx and David M. Greenhouse are the principal owners of MGP and AWM and are principally responsible for the selection, acquisition and disposition of the portfolios securities by the investment advisers on behalf of their Fund.