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

FORM 11-K

ANNUAL REPORT PURSUANT TO SECTION 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

For the years ended December 31, 2003 and 2002

Commission file number 1-9759

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:



IMC Global Inc. Represented Retirement Savings Plan

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

IMC GLOBAL INC.
100 S. Saunders Road Suite 300
Lake Forest, Illinois 60045-2561
847-739-1200

IMC Global Inc. Represented Retirement Savings Plan

Financial Statements and Supplemental Schedule

Years ended December 31, 2003 and 2002

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Report of Independent Registered Public Accounting Firm

Plan Administrator

IMC Global Inc. Represented Retirement Savings Plan

We have audited the accompanying statements of assets available for benefits of the IMC Global Inc. Represented Retirement Savings Plan as of December 31, 2003 and 2002, and the related statements of changes in assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the assets available for benefits of the Plan at December 31, 2003 and 2002, and the changes in its assets available for benefits for the years then ended, in conformity with U.S. generally accepted accounting principles.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying supplemental schedule of assets (held at end of year) as of December 31, 2003, is presented for purposes of additional analysis and is not a required part of the financial statements, but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

June 8, 2004
Chicago, IL

Ernst & Young LLP

IMC Global Inc. Represented Retirement Savings Plan

Statements of Assets Available for Benefits

	<i>December 31</i>	
	<i>2003</i>	<i>2002</i>
<hr/>		
Assets		
Cash	\$ 44,584	\$ 6,176
Interest in Master Trust Fund	8,420,236	7,396,156
Investments, at fair value	20,242,357	15,866,276
<i>Receivables:</i>		
Participant contributions	41,229	67,416
Employer contributions	21,124	15,141
Total receivables	62,353	82,557
Assets available for benefits	<u>\$28,769,530</u>	<u>\$23,351,165</u>
<hr/>		

See accompanying notes.

IMC Global Inc. Represented Retirement Savings Plan

Statements of Changes in Assets Available for Benefits

	Year ended December 31	
	2003	2002
Additions		
<i>Investment income (loss):</i>		
Interest and dividends	\$ 502,914	\$ 512,122
<i>Net realized and unrealized appreciation (depreciation) in fair value of investments:</i>		
Mutual funds	2,335,894	(2,106,055)
Common collective trust funds	76,159	(41,679)
IMC Global Inc. common stock	(18,423)	(237,393)
Income from Master Trust Fund	386,628	368,015
Total investment income (loss)	3,283,172	(1,504,990)
<i>Contributions:</i>		
Participants	2,970,022	2,963,218
Employer	636,445	522,714
Total contributions	3,606,467	3,485,932
Total additions	6,889,639	1,980,942
Deductions		
Distributions	1,388,448	1,343,296
Net transfers to other plan	68,552	295,666
Administrative fees	14,274	12,375
Total deductions	1,471,274	1,651,337
Net increase	5,418,365	329,605
Assets available for benefits - Beginning of year	23,351,165	23,021,560
Assets available for benefits - End of year	<u>\$28,769,530</u>	<u>\$23,351,165</u>

See accompanying notes.

IMC Global Inc. Represented Retirement Savings Plan

Notes to Financial Statements

Years ended December 31, 2003 and 2002

1. DESCRIPTION OF THE PLAN

The following description of the IMC Global Inc. Represented Retirement Savings Plan (the Plan) provides only general information. Participants should refer to the Plan document for a more complete description of the Plan's provisions.

The Plan was established pursuant to collective-bargaining agreements with the Unions.

General

The following hourly employees of IMC Global Inc. (the Company) are eligible to participate upon their hire date:

Employees represented by Local #188-A of the United Steelworkers of America at the Carlsbad, New Mexico, operations;

Employees represented by Local #1625 International Chemical Workers Union Council of the United Food and Commercial Workers International Union (Concentrates Union) at the Florida concentrates operations;

Employees represented by Local #35C International Chemical Workers Union Council of the United Food and Commercial Workers International Union (Florida Minerals Union) at the Florida minerals operations; and

Employees represented by Local #1625 International Chemical Workers Union Council of the United Food and Commercial Workers International Union (Port Sutton Union) at the Port Sutton facility (through December 23, 2003).

Pursuant to a certain collective bargaining agreement, certain represented employees are automatically enrolled in the Plan upon meeting the eligibility requirements. A participant is assumed to have authorized the Company to withhold from each paycheck, \$10 of pay on a before-tax basis. Automatic payroll withholding can begin no sooner than 60 days from date of hire. A participant has the right to decline automatic enrollment within 60 days from date of hire. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA).

Contributions

The Plan is funded by contributions from participants in the form of payroll deductions of \$5 to \$500 each pay period on a before-tax basis subject to Internal Revenue Service (IRS) tax limits. Additional before-tax "catch-up" contributions are allowed above the IRS annual dollar limit for employees at least age 50 or will reach age 50 during a given calendar year. The Plan is also funded by Company matching contributions. Participants should refer to their collective-bargaining agreement or contact local Human Resources to determine the specific matching contributions.

Effective June 1, 2003, pursuant to certain collective bargaining agreements, the Company added a Defined Contribution Retirement Plan (DCRP) feature to the Plan. The Company contribution to the DCRP feature is based on a percentage of employee's eligible base pay. Pursuant to a certain collective bargaining agreement, employees eligible to participate in the DCRP who contribute to the 401(k) feature are eligible to receive enhanced Company matching contributions. The Plan became the primary retirement vehicle for employees covered by certain collective bargaining agreements who were hired or reemployed on or after June 1, 2003. Generally, a participant must be employed on the last day of the Plan year to be eligible for the DCRP contribution.

Participants may roll over their vested benefits from other qualified benefit plans to the Plan.

Participant Accounts

Each participant's account is credited with the participant's contributions and allocations of: (a) the Company contributions and (b) Plan earnings, and is charged with an allocation of certain administrative expenses. Allocations are based on earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's account.

Administrative Expenses

Certain administrative expenses of the Plan are borne by the Company.

Investment Programs

The Plan's investments are administered by Putnam Fiduciary Trust Company. Participants can choose from among fourteen investment funds, one of which is a pooled fund (Master Trust Fund) shared by one other IMC Global Inc. 401(k) plan. Additionally, subject to certain requirements and limitations, a self-directed brokerage account is offered whereby participants can choose from thousands of investments outside the Plan's fund line-up in which to invest a portion of their Plan account.

Participants may elect to change the investment direction of their existing account balances and their future contributions daily.

Vesting

Participants are immediately vested in the portion of their account related to participant contributions, Company matching contributions, and earnings thereon. Certain participants eligible for DCRP contributions are vested in their DCRP account after either five years of service, attaining age 65, or death while an employee.

Withdrawals

Participants may withdraw their vested account balance in the Plan upon termination of employment. Under certain conditions of financial hardship, participants may withdraw certain funds, but their participation in the Plan will be suspended for six months. Certain withdrawals are available after age 59 1/2 or in the event of total and permanent disability.

Participants who terminate their employment and have a vested account balance in excess of \$5,000 may: (1) receive their distribution in a lump sum; (2) defer their lump sum payment to a future date, but no later than April 1 of the calendar year following the calendar year in which the participant reaches 70 1/2; or (3) receive annual installment payments for up to 10 years beginning immediately or at a later date.

Loans to Participants

Participants in the Plan may be granted loans subject to certain terms and maximum dollar or Plan account balance limits, as defined by the Plan. Principal repayments, which are over one to five years for general purpose loans and over one to ten years for residential loans, and related interest income are credited to the borrowing participant's account. Loan payments are made by payroll deductions. The loan interest rate that will be charged for both general purpose and residential loan is calculated on a monthly basis using the prime rate, as quoted in the *Wall Street Journal*, plus 1%.

Plan Termination

Although it has not expressed any interest to do so, the Company reserves the right under the Plan (subject to the collective bargaining agreement) to make changes at any time or even suspend or terminate the Plan subject to the provisions of ERISA.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Investment Valuation and Income Recognition

Except for guaranteed investment contracts, investments are stated at fair value. Fair value is the last reported sale price on the last business day of the month for securities traded on a national securities exchange and in the over-the-counter market. Fair value for shares of mutual, common collective trust, and master trust funds is the net asset value of those shares or units, as determined by the respective funds. Loans to participants are valued at cost, which approximates fair value. Guaranteed investment contracts are carried at contract value.

Net income or loss from the Master Trust Fund is allocated monthly to each participating plan based on the ratio of each plan's equity to the total equity of all participating plans prior to the allocations.

Purchases and sales of securities are accounted for on a trade-date basis. Dividend income is recorded on the ex-dividend date. Interest from investments is recorded on the accrual basis.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires the plan administrator to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Reclassification

Certain amounts in the 2002 financial statements have been reclassified to conform to the 2003 presentation.

3. INVESTMENT IN MASTER TRUST FUND

Assets of the Stable Value Fund are shared by one other IMC Global Inc. 401(k) plan. The Plan held a 13% and 11% interest in the Stable Value Fund at December 31, 2003 and 2002, respectively.

The equitable shares in the Master Trust Fund of a participating plan are proportionate to the fair market value of the assets allocable to such participating plan.

The net assets of the Stable Value Fund as of December 31, 2003 and 2002, were as follows:

	<i>December 31</i>	
	<i>2003</i>	<i>2002</i>
Putnam Stable Value Fund	\$54,877,669	\$42,880,827
<i>Guaranteed Investment Contracts:</i>		
Business Men's Assurance Company	3,208,624	3,208,624
Rabobank Nederland	435,099	1,311,568
Allstate Life Insurance Co.	4,123,600	4,123,600
Ohio National Life Insurance Co.	-	5,897,213
John Hancock Life Insurance Co.	1,988,483	1,873,983
Connecticut General Life Insurance Co.	-	4,989,480
Protective Life Insurance Co.	1,031,118	1,061,734
Pending investment transactions	264,405	(194,227)
Net assets	<u>\$65,928,998</u>	<u>\$65,152,802</u>

Earnings and expenses in the Stable Value Fund are summarized as follows:

	<i>Year ended December 31</i>	
	<i>2003</i>	<i>2002</i>
Interest income	\$3,180,359	\$3,266,384
Investment expenses	(8,554)	(7,019)
	<u>\$3,171,805</u>	<u>\$3,259,365</u>

4. SIGNIFICANT INVESTMENTS

Individual investments that represent 5% or more of assets available for benefits were as follows:

	<i>December 31</i>	
	<i>2003</i>	<i>2002</i>
<i>Mutual funds:</i>		
Fidelity Magellan Fund	\$2,851,165	\$2,110,208
Putnam Asset Allocation - Balanced Portfolio	5,639,433	4,491,452
Putnam Equity Income Fund	3,483,661	2,663,749
PIMCO Total Return Fund - Institutional	2,316,764	2,207,621
IMC Global Inc. common stock	1,692,908	1,429,529

5. FEDERAL INCOME TAX STATUS

The Plan has received a determination letter from the IRS dated September 18, 2002, stating that the Plan is qualified under Section 401(a) of the IRC and, therefore, the related trust is exempt from taxation. Subsequent to this determination by the IRS, the Plan was amended. Once qualified, the Plan is required to operate in conformity with the IRC to maintain its qualification. The plan administrator believes the Plan is being operated in compliance with the applicable requirements of the IRC and, therefore, believes that the Plan, as amended, is qualified and the related trust is tax-exempt.

6. RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of assets available for benefits and benefits paid to participants per the financial statements to the Form 5500:

	<i>December 31</i>	
	<i>2003</i>	<i>2002</i>
Assets available for benefits per the financial statements	\$28,769,530	\$23,351,165
Deemed distributions of participant loans	(107,971)	(76,721)
Assets available for benefits per the Form 5500	<u>\$28,661,559</u>	<u>\$23,274,444</u>
	<i>Year ended December 31 2003</i>	
Benefits paid to participants per the financial statements		\$1,388,448
Add: Deemed distribution of participant loans at December 31, 2003		107,971
Less: Deemed distribution of participant loans at December 31, 2002		(76,721)
Benefits paid to participants per the Form 5500		<u>\$1,419,698</u>

Deemed distributions are recorded on the Form 5500 but are not recorded on the financial statements.

7. RISKS AND UNCERTAINTIES

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of assets available for benefits.

8. SUBSEQUENT EVENT

Pursuant to certain collective bargaining agreements, the Plan was amended to allow certain participants to freeze their benefit accruals under the IMC Global Inc. Consolidated Retirement Plan for Union Hourly Employees and begin participating in the DCRP feature of the Plan effective January 1, 2004.

Supplemental Schedule

IMC Global Inc. Represented Retirement Savings Plan

Schedule H, Line 4i - Schedule of Assets (Held at End of Year)

December 31, 2003

<i>Identity of Issuer</i>	<i>Description</i>	<i>Number of Shares</i>	<i>Current Value</i>
Putnam Fiduciary Trust Company*	Putnam Asset Allocation - Balanced Portfolio	570,793	\$ 5,639,433
	Putnam Equity Income Fund	221,325	3,483,661
	Putnam Investors Fund	6,791	76,807
	Putnam S&P 500 Index Fund	9,386	260,732
	Putnam Asset Allocation - Growth Portfolio	21,034	212,864
	Putnam International Growth Fund	5,648	117,366
	Capital Guardian Emerging Markets Equity Fund	19,528	165,797
	Putnam Asset Allocation - Conservative Portfolio	11,469	101,272
	Self-directed brokerage account	-	72,545
Fidelity Management Trust Company	Fidelity Magellan Fund	29,171	2,851,165
T. Rowe Price Trust Company	T. Rowe Price Small Cap Stock Fund	25,419	711,237
PIMCO	PIMCO Total Return Fund - Institutional	216,318	2,316,764
Vanguard Fiduciary Trust Company	Vanguard Windsor II Fund	18,323	485,381
IMC Global Inc.*	IMC Global Inc. common stock	170,484	1,692,908
Loans to participants	Varying maturities with interest rates ranging from 5.00% to 9.50%	-	1,946,454
			<u>\$20,134,386</u>

*Indicates party in interest to the Plan.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 33-42074) pertaining to the IMC Global Inc. Represented Retirement Savings Plan of our report dated June 8, 2004, with respect to the financial statements and schedule of the IMC Global Inc. Represented Retirement Savings Plan included in this Annual Report (Form 11-K) for the year ended December 31, 2003.

Chicago, Illinois
June 23, 2004

Ernst & Young LLP

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, I the Undersigned Chairman of the Employee Benefits Committee have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

IMC Global Inc. Represented Retirement Savings Plan

Stephen P. Malia

Stephen P. Malia
Chairman of the Employee Benefits Committee

Date: June 25, 2004

Pursuant to the requirements of the Securities Exchange Act of 1934, this annual report has been signed below by the following persons in their capacities as members of the Employee Benefits Committee and on the dates indicated.

<i>Signature</i>	<i>Title</i>	<i>Date</i>
<u>J. Reid Porter</u> J. Reid Porter	Executive Vice President and Chief Financial Officer	June 25, 2004
<u>Stephen P. Malia</u> Stephen P. Malia	Senior Vice President Human Resources	June 25, 2004
<u>E. Paul Dunn</u> E. Paul Dunn	Vice President and Treasurer	June 25, 2004
<u>Mary Ann Hynes</u> Mary Ann Hynes	Senior Vice President and General Counsel	June 25, 2004
<u>James O. Siemers</u> James O. Siemers	Director of Compensation and Benefits	June 25, 2004

Exhibit Index

<i>Exhibit No.</i>	<i>Description</i>	<i>Incorporated Herein by Reference to</i>	<i>Filed with Electronic Submission</i>
32.1	Certification Pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code		X
32.2	Certification Pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code		X