

MILLENNIUM CHEMICALS INC

Form 11-K

June 27, 2007

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SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 11-K

(Mark One)

Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended December 31, 2006

OR

Transition report pursuant to Section 15(d) of the Securities Exchange Act of 1934
Commission File Number 001-10145

MILLENNIUM SAVINGS AND INVESTMENT PLAN

(Title of the Plan)

LYONDELL CHEMICAL COMPANY

1221 McKinney Street

Suite 700

Houston, Texas 77010

(Name and address of principal executive

office of the issuer of the securities)

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MILLENNIUM SAVINGS AND INVESTMENT PLAN

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* Other supplemental schedules are not required and have been omitted.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Participants and Benefits Administrative Committee of the

Millennium Savings and Investment Plan:

In our opinion, the accompanying statements of net assets available for benefits and the related statement of changes in net assets available for benefits present fairly, in all material respects, the net assets available for benefits of the Millennium Savings and Investment Plan (the Plan) at December 31, 2006 and 2005, and the changes in net assets available for benefits for the year ended December 31, 2006 in conformity with accounting principles generally accepted in the United States of America. 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 of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). These 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental Schedule of Assets (Held at End of Year) is presented for the purpose of additional analysis and is not a required part of the basic 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 the 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.

/s/ PricewaterhouseCoopers LLP

Houston, Texas

June 27, 2007

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	December 31,	
	2006	2005
ASSETS		
Investments:		
Common Stock	\$ 3,710,537	\$ 2,690,299
Lyondell Chemical Company Common Stock	27,228,624	29,534,728
Mutual Funds	88,381,693	74,769,166
U.S. Government Securities	85,644	70,712
Short-Term Investments	26,756,617	24,947,080
Participant Loans	4,553,257	4,308,984
Total Investments	150,716,372	136,320,969
Net Assets Available for Benefits	\$ 150,716,372	\$ 136,320,969

The accompanying notes are an integral part of these financial statements.

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MILLENNIUM SAVINGS AND INVESTMENT PLAN

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

For the year ended December 31, 2006

Contributions:	
Employer	\$ 3,487,190
Participant	7,846,913
Total contributions	11,334,103
Investment Income:	
Dividend	4,420,372
Interest	1,445,877
Net appreciation in fair value of investments	9,972,033
Net investment income	15,838,282
Benefits paid to participants	(12,762,948)
Transaction fees	(14,034)
Net increase	14,395,403
Net Assets Available for Benefits:	
Beginning of year	136,320,969
End of year	\$ 150,716,372

The accompanying notes are an integral part of these financial statements.

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MILLENNIUM SAVINGS AND INVESTMENT PLAN

NOTES TO THE FINANCIAL STATEMENTS

1. Description of the Plan

General The Millennium Savings and Investment Plan (the Plan) is a defined contribution plan for employees and vested former employees of Millennium Chemicals Inc. (Millennium or the Company) and its subsidiaries. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). Participants should refer to the Plan document for a complete description of the Plan.

The Plan is available to all United States employees of Millennium who are regular, full-time, non-represented employees; part-time employees that have worked 1,000 hours; and certain regular, full-time represented employees that are covered under a collective bargaining agreement that allows eligibility into the Plan. A participant is eligible to participate effective immediately.

On November 30, 2004, Lyondell Chemical Company (Lyondell) acquired Millennium in a stock-for-stock business combination. As a result of the acquisition, Millennium is a wholly owned subsidiary of Lyondell. In the acquisition, each share of the Company's common stock was converted into the right to receive 0.95 shares of Lyondell common stock. In connection with the closing of the acquisition, all of the Company's common stock held by the Plan was converted into shares of Lyondell common stock pursuant to the exchange ratio as described above.

Plan Administration The Plan is administered by the Lyondell Benefits Administrative Committee which is comprised of individuals appointed by the Lyondell's Board of Directors. Fidelity Management Trust Company (Fidelity) is the recordkeeper and trustee of the Plan. The trustee makes payments as authorized by the Plan. Millennium pays certain administrative expenses of the Plan. The transaction fees are paid by the participants. The Plan sponsor, Millennium America Holdings, Inc., the Benefits Administrative Committee and trustee do not take responsibility for the investment decisions of individual participants. Fidelity makes payments as authorized by the Plan.

Contributions Subject to the Internal Revenue Code limitation on the maximum amount of an employee's contribution on a pre-tax basis to \$15,000 in 2006, participants may contribute up to 30% of eligible compensation in 1% increments for contribution into the Plan on a pre-tax basis. Millennium makes matching company contributions of 75% of the first 6% of employee contributions. Participants who have attained age 50 before the end of the Plan year are eligible to make catch-up contributions up to a maximum amount of \$5,000 in 2006. Contributions are recorded when withheld from participants by Millennium and are deposited twice each month. Prior to Lyondell's acquisition of the Company, the Company contribution was funded with Millennium common stock. Effective January 1, 2003, participants had the choice to retain their company match account within the Millennium Chemicals Stock Fund, or sell the stock and transfer the proceeds into one or more of the other investment options offered by the Plan, subject to Plan provisions. Effective November 29, 2004, the Company contribution is funded in cash and is deposited into each participant's account based on the participant's current investment elections. Effective December 1, 2004, the Millennium Chemicals Stock Fund was converted into the Lyondell Chemicals Stock Fund and the Millennium shares in the Millennium Chemicals Stock Fund were converted into Lyondell shares as described above. Participants are immediately vested in their contributions, company contributions and earnings thereon.

Participant Accounts Each participant's account is credited with the participant's contribution and allocations of the Company's contribution and Plan earnings. Allocations are based on participant earnings or account balances, as defined by the Plan document. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Benefit Payments and Borrowings Distributions of any participant's vested account balance may be made upon the participant attaining certain age requirements, termination of employment, death, permanent disability, termination of the Plan or a change in control as defined in the Plan document. Participants are permitted to make hardship withdrawals if certain criteria are met. Generally, only one withdrawal of any type is allowed in a 12 month period. If a participant's account balance is \$1,000 or less, the participant's account balance will be distributed as soon as practicable.

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MILLENNIUM SAVINGS AND INVESTMENT PLAN

NOTES TO THE FINANCIAL STATEMENTS - (CONTINUED)

Participants may borrow against their account balance. The minimum amount a participant may borrow is \$1,000. Total loans to a participant cannot exceed the lesser of \$50,000 or 50% of the participant's account balance. The amount of any loan will be withdrawn in a ratio that is proportionate to the participant's balance in each investment fund. Loans shall bear interest at the prime lending rate (at the date of the loan) plus 1% and are repayable within 5 years from the date of borrowing, with the exception of loans in excess of \$15,000 used to acquire a primary residence, which are repayable over a period of up to 10 years. As loans are repaid, both the principal and interest are deposited to the participant's current investment elections. A portion of a participant's investment account is pledged as collateral for the loan and the loans bears interest at rates ranging from 4.75% to 10.0%. Participant loans are carried as investments at their face amount on the Statement of Net Assets Available for Benefits. The principal and interest are paid ratably through payroll deductions. When a participant terminates employment with the Company, the unpaid balance of the participant's loan(s) must be repaid within the 60 days after separation of service. If the loan is not repaid, it will be automatically treated as a distribution to the participant.

Termination Provision - Although it has not expressed any intent to do so, Millennium has the right to terminate the Plan at any time subject to the provisions of ERISA. In the event of Plan termination, all participants will be fully vested in their accounts and all assets of the Plan will continue to be held for distribution to participants as provided in the Plan.

2. Summary of Significant Accounting Policies

Basis of Accounting - The financial statements of the Plan are prepared using the accrual method of accounting, except for benefit payments, which are recorded when paid.

Investment Valuation and Income Recognition - The Plan's investments are stated at fair value. Quoted market prices are used to value investments. Investment funds are valued at net asset value as of the last business day of the periods presented, which is the fair value of all securities held plus accruals for dividend income and interest income. Short-term, certain other investments and participant loans are valued at cost, which approximates fair value. Purchases and sales of securities are accounted for on the trade date. Gains or losses on the sale or distribution of securities are computed on an average cost basis. Dividend income is accrued on the ex-dividend date and interest income is accrued as earned. The net appreciation or depreciation in the fair value of investments, which consists of the realized gains or losses and the unrealized appreciation or depreciation of those investments, is included in Net depreciation in fair value of investments in the Statement of Changes in Net Assets Available for Benefits.

Payment of Benefits - Benefit payments to participants are recorded upon distribution.

Use of Estimates - The preparation of the Plan's financial statements in conformity with accounting principles generally accepted in the United States of America requires the Plan management to make significant estimates and assumptions that affect the reported amounts of net assets available for benefits at the date of the financial statements and the changes in net assets available for benefits during the reporting period and, when applicable, the disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Risks and Uncertainties - The Plan provides for various investment options, which includes a combination of stocks, bonds, fixed income securities, mutual funds and other investment securities. Investment securities are exposed to various risks, such as 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 the amounts reported in the Statement of Net Assets Available for Benefits.

Index to Financial Statements**MILLENNIUM SAVINGS AND INVESTMENT PLAN****NOTES TO THE FINANCIAL STATEMENTS - (CONTINUED)****3. Tax Status**

The Plan is a qualified plan under Sections 401(a) and (k) of the Internal Revenue Code of 1986, as amended (the Code). The Plan has received a favorable determination letter from the Internal Revenue Service dated December 2, 2002. The Plan has been amended since receiving the determination letter. However, the Benefits Administrative Committee believes that the Plan is currently designed and being operated in compliance with the applicable requirements of the Code. Accordingly, no provision is made for federal income taxes.

4. Reconciliation of the Plan Financial Statements to Schedule H of Form 5500

The following is a reconciliation of the Plan's net assets available for benefits per the financial statements at December 31, 2006 and 2005 to Schedule H of Form 5500:

	December 31,	
	2006	2005
Net assets available for benefits per the financial statements	\$ 150,716,372	\$ 136,320,969
Deemed distributions of participant loans	(481)	(13,591)
Net assets available for benefits per Schedule H of Form 5500	\$ 150,715,891	\$ 136,307,378

The following is a reconciliation of benefits paid to participants per the financial statements for the year ended December 31, 2006 to Schedule H of Form 5500:

	2006
Total benefits paid to participants per the financial statements	\$ 12,762,948
Deemed distributions of participant loans	(13,110)
Total benefit payments per Schedule H of Form 5500	\$ 12,749,838

Amounts allocated to deemed distributions of participant loans are recorded as an investment in the financial statements and recorded as an expense on Schedule H of Form 5500.

Deemed Distribution A participant loan is deemed distributed during the plan year under the provisions of Internal Revenue Code section 72(p) and Treasury Regulation section 1.72(p) if the participant loan is treated as a direct investment solely of the participant's individual account and the participant has discontinued payment of the loan as of the end of the year. For financial statement purposes, the loan balance is still considered as an outstanding loan until the loan obligation has been satisfied and is not treated as an actual distribution until such time the participant separates from employment and the participant's vested account balance is fully distributed.

Index to Financial Statements**MILLENNIUM SAVINGS AND INVESTMENT PLAN****NOTES TO THE FINANCIAL STATEMENTS - (CONTINUED)****5. Investments in Excess of 5% of Assets**

The following individual investments represented more than 5% of Plan assets at December 31, 2006:

Lyondell Chemical Company Inc. Common Stock	\$ 27,228,624
Fidelity Retirement Money Market Fund	24,892,651
Fidelity Mid-Cap Fund	16,248,966
Fidelity Diversified International Fund	14,328,149
Spartan US Equity Index Fund	11,419,428
Fidelity Freedom 2030 Fund	9,202,404

The following individual investments represented more than 5% of Plan assets at December 31, 2005:

Lyondell Chemical Company Inc. Common Stock	\$ 29,534,728
Fidelity Retirement Money Market Fund	23,392,957
Fidelity Mid-Cap Fund	13,431,877
Spartan US Equity Index Fund	10,357,603
Fidelity Diversified International Fund	10,288,949
Fidelity Freedom 2030 Fund	8,815,987

During 2006, the Plan's investments (including gains and losses on investments bought, sold, and held during the year) appreciated in value by \$9,972,033 as follows:

Mutual funds	\$ 6,987,478
Lyondell Chemical Company Inc. Common Stock	2,984,555
	\$ 9,972,033

6. Party-in-Interest Transactions

Certain Plan investments are shares of mutual funds managed by Fidelity, trustee and recordkeeper of the Plan, and shares of Lyondell's common stock, therefore, these transactions qualify as party-in-interest transactions. These party-in-interest transactions are permissible under provisions of ERISA. Millennium pays certain costs of administering the Plan

7. Subsequent Event

On May 15, 2007, Millennium completed the sale of its worldwide inorganic chemicals business. The employees in the business that was sold will have their account balances transferred into the buyer's new 401(k) plan as soon as administratively possible after the sale.

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EIN: 98-0045720, P/N: 036

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

As of December 31, 2006

(a)	(b) Identity of issue, borrower, lessor or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(d) Cost	(e) Current Value
	BROKERAGELINK			
	Common Stock			\$ 3,710,537
	Mutual Funds			4,901,050
	Government Debt			85,644
	Cash and Money Market			1,289,606
*	Lyondell Chemical Co. Stock	Common Stock	19,210,403	27,228,624
	PIMCO Total Return Adm	Registered Investment Company		2,938,324
	PIMCO High Yield Adm	Registered Investment Company		1,553,527
	LM Value Trust FI CL	Registered Investment Company		2,168,056
*	Fidelity Equity Inc.	Registered Investment Company		3,658,834
*	Fidelity Growth Co.	Registered Investment Company		2,814,269
*	Fidelity Growth & Inc.	Registered Investment Company		1,953,885
*	Fidelity Low PR STK	Registered Investment Company		7,227,278
*	Fidelity Diversity International	Registered Investment Company		14,328,149
*	Fidelity Mid-Cap Stock	Registered Investment Company		16,248,966
*	Fidelity Freedom Income	Registered Investment Company		435,763
*	Fidelity Freedom 2000	Registered Investment Company		144,159
*	Fidelity Freedom 2010	Registered Investment Company		2,590,588
*	Fidelity Freedom 2020	Registered Investment Company		5,961,006
*	Fidelity Freedom 2030	Registered Investment Company		9,202,404
*	Fidelity Retirement Money Market	Registered Investment Company		24,892,651
	Spartan US Equity Index	Registered Investment Company		11,419,428
*	Fidelity Freedom 2040	Registered Investment Company		836,005
	Short Term Investments			574,362
*	PARTICIPANT LOANS	Interest rates ranging from 4.75% - 10.0%, maturity dates ranging from 2006 to 2015		4,552,776
				\$ 150,715,891

* Denotes party-in-interest transaction.

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MILLENNIUM SAVINGS AND INVESTMENT PLAN

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the Plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

MILLENNIUM SAVINGS AND INVESTMENT
PLAN

By: /s/ Allen C. Holmes
ALLEN C. HOLMES
Chairman, Benefits Administrative Committee

Date: June 27, 2007

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EXHIBIT INDEX

Exhibit No.	Exhibit	Sequentially Numbered Page Where Located
23	Consent of Independent Registered Public Accounting Firm	12