Prospectus

Alcoa Inc.

Common Stock

2004 Alcoa Stock Incentive Plan
Alcoa Stock Incentive Plan

This prospectus relates to shares of common stock, par value $1.00 per share, of Alcoa Inc. issuable pursuant to the provisions of the 2004 Alcoa Stock Incentive Plan and the Alcoa Stock Incentive Plan.

Alcoa's common stock is listed on the New York Stock Exchange under the symbol "AA".

The principal executive offices of Alcoa are located at 201 Isabella Street, Pittsburgh, Pennsylvania 15212-5858. The telephone number is (412) 553-4545.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is December 1, 2005.

This document constitutes part of a prospectus covering securities that have been registered under the Securities Act of 1933.

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GENERAL

About the Prospectus

This prospectus relates to shares of common stock, par value $1.00 per share, of Alcoa Inc. ("Alcoa") that may be issued under the 2004 Alcoa Stock Incentive Plan, as amended (the "Plan"), including shares issuable under awards that were outstanding as of May 1, 2004 under the Alcoa Stock Incentive Plan (the "Prior Plan"). In connection with the offering of the shares, Alcoa is required to provide you with a "prospectus" giving a general description of material information regarding the Plan and its operations (the "Plan Prospectus"). The Plan Prospectus consists of the following, taken together:

- this document;
- the Plan;
- the booklets summarizing specific types of awards under the Plan entitled "Stock Options", "Stock Awards" and "Performance Share Awards", and the booklets summarizing the "Equity Choice" program, each as amended from time to time (collectively, the "Booklets");
- the documents identified below as being incorporated by reference into the Plan Prospectus; and
- any other documents that Alcoa specifically identifies in the future as being part of the Plan Prospectus.

You should read all of the documents constituting part of the Plan Prospectus.

Where You Can Find More Information

Alcoa files annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the "SEC"). Its SEC filings are available to the public from the SEC's web site at *http://www.sec.gov*. You may also read and copy any document Alcoa files with the

SEC at the SEC's public reference room in Washington, D.C., located at 100 F Street, NE, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Alcoa's common stock is listed and traded on the New York Stock Exchange (the "NYSE"). You may also inspect the information Alcoa files with the SEC at the NYSE's offices at 20 Broad Street, New York, New York 10005.

Alcoa has filed a registration statement on Form S-8 with the SEC under the Securities Act of 1933, as amended (the "Securities Act"), that registers the shares offered by this prospectus. As permitted by the rules and regulations of the SEC, this prospectus does not contain all of the information set forth in the registration statement. You should read the registration statement for further information about Alcoa and its common stock.

Incorporation of Certain Documents by Reference

The SEC allows Alcoa to "incorporate by reference" in this prospectus the information in the documents that it files with the SEC, which means that Alcoa can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information in documents that Alcoa files later with the SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this prospectus. Alcoa incorporates by reference in this prospectus the documents listed below and any future filings that it may make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), until the completion of the offering of the securities described in this prospectus, except that Alcoa is not incorporating by reference any information that is not deemed to be filed under those sections.

- Alcoa's Annual Report on Form 10-K for the year ended December 31, 2004;
- All other reports filed by Alcoa pursuant to Section 13(a) or 15(d) of the Exchange Act since December 31, 2004; and
- The description of Alcoa's common stock contained in the Registration Statement on Form S-8 filed on May 21, 2004 (File No. 333-115717).

Alcoa will provide to you, free of charge, upon written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus. Exhibits to those documents will not be provided unless they are specifically incorporated by reference. Alcoa will also provide to you free of charge additional copies of the materials that make up the Plan Prospectus, as well as reports, proxy statements and other communications delivered to Alcoa's shareholders generally. Address written requests to: Mike McCleary, Stock Option Administration, Alcoa Inc., 201 Isabella Street, Pittsburgh, PA 15212. Call 1-877-281-2088 to make a request via telephone.

For information about the Plan or Alcoa, you should rely only on the information contained or incorporated by reference in this prospectus or the other documents constituting part of the Plan Prospectus. Alcoa has not authorized anyone to provide you with different or additional information. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of this prospectus.

INFORMATION CONCERNING THE PLAN

General Information

The purpose of the Plan is to attract, motivate, retain and reward selected employees of Alcoa by giving them an ownership interest in Alcoa and a proprietary and vested interest in Alcoa's growth and financial success, thereby aligning the interests of such employees with Alcoa's shareholders.

The Plan became effective May 1, 2004 and replaced the Prior Plan. No awards may be granted under the Prior Plan after May 1, 2004; however, all awards previously granted under the Prior Plan extend for the full stated terms thereof and are administered under the Plan. No awards may be granted under the Plan after April 30, 2009.

Administration of the Plan

The Plan is administered by the Compensation and Benefits Committee of the Board of Directors of Alcoa. Committee members must be independent directors and outside directors to satisfy applicable regulatory requirements. This means that they cannot be current or former Alcoa officers or employees, and they may not receive compensation from Alcoa except in their capacity as directors. The members of the committee are appointed by a majority vote of the Board from among its members based on the recommendations of the Governance and Nominating Committee and serve until such member's successor is duly appointed and qualified or until such member's resignation or removal by a majority vote of the Board.

The committee has the authority, subject to the terms of the Plan, to select employees to whom it will grant awards, to determine the types of awards and the number of shares covered, to set the terms and conditions of the awards and to cancel or suspend awards. The committee also has authority to interpret the Plan, to establish, amend and rescind rules applicable to the Plan or awards under the Plan, to appoint agents for the proper administration of the Plan, and to make all determinations relating to awards under the Plan.

The Board may assume responsibilities otherwise assigned to the committee. In addition, the Plan permits delegation of certain authority to senior officers in limited instances to make, cancel or suspend awards to employees who are not Alcoa directors or executive officers.

As more fully described in the Booklets, TBG Consulting, Inc. has been appointed as the Plan administrator and serves as a resource for information about outstanding grants, participants' rights under the Plan, and how to use the Plan features. Please refer to the Booklets for information on how to contact the Plan administrator.

Amendment and Termination

The Board of Directors may amend, alter, suspend, discontinue or terminate the Plan or any portion of the Plan at any time, except that no such action may be made without:

- the consent of the affected participant, if such action would impair the rights of such participant under any outstanding award; or

- shareholder approval if:

- a proposed amendment or alteration would materially increase the benefits accruing to participants, materially increase the maximum number of shares that may be issued under the Plan, or materially modify the Plan's eligibility requirements; or

- such approval is necessary pursuant to tax or regulatory requirements.

The committee may amend the terms of any previously granted award, prospectively or retroactively, but no such amendment may:

- impair the rights of any participant without his or her consent;
- reduce the option price of any stock option; or
- reduce the minimum vesting period of any contingent stock award or other stock unit award.

Shares Authorized and Award Limits

Up to 30 million shares of Alcoa common stock are authorized for issuance under the Plan in connection with stock options and stock appreciation rights, and up to 10 million shares of Alcoa common stock are authorized for issuance under the Plan in connection with awards of contingent stock, performance shares or other stock unit awards. In addition to those 40 million shares, the following also are authorized for grant under the Plan:

- shares subject to awards under the Plan or the Prior Plan that are forfeited, settled for cash, expire or otherwise terminate without share issuance;
- shares tendered in payment of the purchase price of an option award under the Plan or the Prior Plan or tendered or withheld to pay required withholding taxes; and
- shares available on May 1, 2004 for issuance as stock options under the Prior Plan, but not issued under the Prior Plan.

The Plan imposes annual limits on awards to individual participants. In any calendar year, no participant may be granted stock options or stock appreciation rights covering more than 2,000,000 shares or contingent stock or performance shares covering more than 300,000 shares. The maximum dollar value payable to an individual with respect to performance unit awards and other stock unit awards (valued with reference to property other than Alcoa shares) granted in any calendar year is $2,000,000.

The Plan provides for adjustment of awards and shares authorized for issuance under the Plan in the event of any merger, reorganization, consolidation, recapitalization, stock dividend, stock split, reverse stock split, spin-off or similar transaction or other change in corporate structure affecting the common stock of Alcoa.

Shares of Alcoa common stock issued under the Plan may consist of authorized and unissued shares, treasury shares or shares purchased in the open market or otherwise.

Tax Aspects of the Plan

The following summary of the material U.S. tax consequences that may accrue to employees as a result of participation in the Plan, as well as the tax effects upon Alcoa, is limited in the following ways:

- Tax consequences of participating in the Plan can vary depending on each participant's tax situation. You are responsible for consulting with tax advisors to determine the tax effect of Plan participation in light of current and proposed federal, state, local, foreign and other tax laws.

- The discussion is based on current law. Changes in the law may change the tax treatment described below.

- The discussion does not cover state, local, foreign or other tax laws.

The grant of a nonqualified stock option or stock appreciation right at fair market value under the Plan has no U.S. federal income tax consequences for the participant or Alcoa. Upon exercise of a stock option or stock appreciation right, Alcoa may take a tax deduction, and the participant realizes ordinary income. The amount of this deduction and income is equal to the difference between the fair market value of the shares on the date of exercise and the grant price of the stock option or stock appreciation right. The committee may permit participants to surrender Alcoa shares in order to satisfy the required withholding tax obligation.

The Plan may allow participants to transfer stock options to immediate family members or a trust of which the beneficiary is the participant or an immediate family member. A transfer of a stock option may be a completed gift for U.S. gift/estate tax purposes upon the later of transfer or vesting. The participant is taxable for income tax purposes upon exercise of the transferred option by the donee. Alcoa may receive a tax deduction at the time of exercise and in that same amount. The donee holds the option stock at the stepped-up basis equal to fair market value at date of exercise.

Transfers of stock options incident to a divorce provide no income tax for the participant and no deduction for Alcoa on transfer. The stock option continues to have the same restrictions for the transferee. Upon exercise, the transferee may be subject to income tax, and the amount may be treated as wages for FICA and FUTA tax for the participant. Alcoa may receive a tax deduction at the time of exercise and in that same amount.

Regarding Plan awards (other than options or stock appreciation rights) that are settled either in cash or in stock or other property that is either transferable or not subject to substantial risk of forfeiture, the participant will generally recognize ordinary income equal to the cash or the fair market value of shares or other property received. Alcoa may receive a tax deduction at that same time and in that same amount.

Regarding Plan awards (other than options or stock appreciation rights) that are settled in stock or other property that is subject to contingencies restricting transfer and to a substantial risk of forfeiture, the participant will generally recognize ordinary income equal to the fair market value of the shares or other property received (less any amount paid by the participant) when the shares or other property first become transferable or not subject to substantial risk of forfeiture, whichever occurs first. Alcoa may receive a tax deduction at that same time and in that same amount.

The committee may adjust awards to employees who are not U.S. citizens or U.S. residents to recognize differences in local law or tax policy and may impose conditions on the exercise or vesting of awards to minimize tax equalization obligations for expatriate employees.

Performance-Based Compensation. Section 162(m) of the Internal Revenue Code limits the amount of the deduction that Alcoa may take on its U.S. federal tax return for compensation paid to any of the named officers in the proxy statement (the Code refers to these officers as “covered employees”). The limit is $1 million per covered employee per year, with certain exceptions. This deductibility cap does not apply to “performance-based compensation” that is approved by shareholders. Under the shareholder approved Plan, awards to covered employees may qualify as performance-based compensation for purposes of the Section 162(m) provisions only if (i) the committee determines at the time an award is granted that the Code Section 162(m) deduction limits do not apply to such award and (ii) such award is otherwise administered in compliance with Code Section 162(m) regulations. As described in the Booklets, Alcoa has implemented an "equity choice" program for all Plan participants. The choices of participants may impact the application of Section 162(m). Certain stock options are exempted from the Section 162(m) cap.

Restrictions on Resale of Shares

All employees are required to comply with Alcoa's Insider Trading Policy. That policy prohibits employees from trading in Alcoa securities unless the employee is sure that he or she does not possess material inside information. You should refer to the Insider Trading Policy for the specific restrictions and requirements of the Policy.

A participant in the Plan who is an "affiliate" of Alcoa, as defined under the U.S. federal securities laws, may not resell any shares of Alcoa common stock acquired under the Plan except under an effective registration statement, under Rule 144 under the Securities Act, or otherwise under an applicable exemption. Because an "affiliate" is a person who "controls" Alcoa, this restriction on resale applies only to a senior officer or director of Alcoa. There are no such restrictions applicable to the resale of shares of Alcoa common stock by participants who are not affiliates of Alcoa.

Senior officers of Alcoa who have been designated as subject to Section 16 of the Exchange Act are required to disgorge to Alcoa any profits realized on "short-swing transactions" (i.e., a purchase and sale, or sale and purchase, of Alcoa's equity securities in certain transactions that occur within a period of less than six months). Such officers must also refrain from engaging in short sales of Alcoa's equity securities.

ERISA; Status as Qualified Plan

The Plan is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974, and is not a "qualified" plan under Section 401(a) of the Internal Revenue Code of 1986, as amended.