

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20059

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 1)

NAME OF ISSUER: Aluminum Company of America

TITLE OF CLASS OF SECURITIES: Aluminum Company of
America Common Stock,
Par Value \$1.00 per share

CUSIP NUMBER: 022249-106

Check the following box if a fee is being paid with this
statement: []

CUSIP NO. 022249-106

(1) Names of Reporting Persons MELLON BANK CORPORATION
SS or IRS Identification Nos. IRS No. 25-1233834
of Above Persons

(2) Check the Appropriate Box (a)
if a Member of a Group
(See Instructions) (b)

(3) SEC Use Only

(4) Citizenship or Place of Organization United States

Number of Shares (5) Sole Voting 785,000
Beneficially Owned by Each Power
Reporting Person

With (6) Shared Voting 1,208,000
Power

| | | |
|------|---|-----------|
| (7) | Sole Dispositive Power | 914,000 |
| (8) | Shared Dispositive Power | 1,508,000 |
| (9) | Aggregate Amount Beneficially Owned by Each Reporting Person | 4,736,000 |
| (10) | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) | |
| (11) | Percent of Class Represented by Amount in Row (9) | 5.36 |
| (12) | Type of Reporting Person (See Instructions) | HC |

- (1) Names of Reporting Persons MELLON BANK, N.A.
SS or IRS Identification Nos. IRS No. 25-0659306
of Above Persons
- (2) Check the Appropriate Box (a)
if a Member of a Group (b)
(See Instructions)
- (3) SEC Use Only
- (4) Citizenship or Place United States
of Organization
- | | | | |
|------------------|-----|---------------|-----------|
| Number of Shares | (5) | Sole Voting | 602,000 |
| Beneficially | | Power | |
| Owned by Each | | | |
| Reporting Person | | | |
| With | (6) | Shared Voting | 1,208,000 |
| | | Power | |
| | (7) | Sole | 686,000 |
| | | Dispositive | |
| | | Power | |
| | (8) | Shared | 1,487,000 |
| | | Dispositive | |
| | | Power | |
- (9) Aggregate Amount Beneficially Owned by Each Reporting Person 4,487,000
- (10) Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)
- (11) Percent of Class Represented 5.1
by Amount in Row (9)
- (12) Type of Reporting Person BK
(See Instructions)

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G
(Under the Securities and Exchange Act of 1934)

- Item 1(a) Name of Issuer:
Aluminum Company of America
- Item 1(b) Address of Issuer's Principal Executive Offices:
1501 Alcoa Building
Pittsburgh, PA 15219
- Item 2 (a) Name of Person Filing:
Mellon Bank Corporation and its Subsidiaries
(including but not limited to the
Subsidiaries of The Boston Company, Inc.) as
listed on Exhibit I
- Item 2(b) Address of Principal Business Office, or if None,
Residence:
Mellon Bank Corporation
One Mellon Bank Center
Pittsburgh, Pennsylvania 15258
- Item 2(c) Citizenship:
United States
- Item 2(d) Title of Class of Securities:
Aluminum Company of America Common Stock,
Par Value \$1.00 per share
- Item 2(e) CUSIP Number:
022249-100
- Item 3 If this statement is filed pursuant to Rules
13d-1(b), or 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.

SCHEDULE 13G (Continued)

- (c) [] Insurance Company as defined in Section 3(a)(19) of the Act.
- (d) [] Investment Company registered under Section 8 of the Investment Company Act.
- (e) [] Investment Advisor registered under Section 203 of the Investment Advisers Act of 1940.
- (f) [] Employee Benefit Plan, Pension Fund which is subject to the provisions of the Employee Retirement Income Security Act of 1974 or Endowment Fund; see Section 240.13d-1(b)(1)(ii)(F).
- (g) [x] Parent Holding Company, in accordance with Section 240.13-d(1)(b)(ii)(G). (Note: See Item 7)
- (h) [] Group, in accordance with Section 240.13d(1)(b)(ii)(H).

Item 4 Ownership:

- (a) Amount beneficially owned: 4,736,000*
*See Exhibit II (A), (C)
- (b) Percent of class: 5.36
- (c) Number of shares as to which person has:
 - (i) Sole power to vote or to direct the vote: 785,000
 - (ii) Shared power to vote or to direct the vote: 1,208,000
 - (iii) Sole power to dispose or to direct the disposition of shares: 914,000
 - (iv) Shared power to dispose or to direct the disposition of shares: 1,508,000

Item 5 Ownership of Five Percent or Less of a Class:

N/A

SCHEDULE 13G (Continued)

Item 6 Ownership of More than Five Percent on Behalf of Another Person:

All of the securities are beneficially owned by Mellon Bank Corporation subsidiaries in their various fiduciary capacities. As a result, another entity in every instance is entitled to dividends or proceeds of sale. The number of individual accounts holding an interest of 5% or more is 0.

Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported by the Parent Holding Company:

This Schedule is filed on behalf of Mellon Bank Corporation and its Subsidiaries (including but not limited to the Subsidiaries of The Boston Company, Inc.) as noted on Exhibit I.

Item 8 Identification and Classification of Members of the Group:

N/A

Item 9 Notice of Dissolution of Group:

N/A

Item 10 Certification:

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

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.

Date: February 7, 1994

MELLON BANK CORPORATION

MELLON BANK, N.A.

By /s/ Michael E. Bleier
Michael E. Bleier
General Counsel

By /s/ Stephen A. Yoder
Stephen A. Yoder
Assistant General
Counsel

EXHIBIT I

The shares reported on the attached Form 13G are held by the following Subsidiaries of Mellon Bank Corporation (including but not limited to the Subsidiaries of The Boston Company, Inc.) as marked (X):

- (A) X Boston Safe Deposit and Trust Company
- X Boston Safe Deposit and Trust Company of California
- X Boston Safe Deposit and Trust Company of New York
- X Mellon Bank, N.A.
- Mellon Bank (Delaware) National Association
- Mellon Bank (MD)

- (B) X Franklin Portfolio
- Laurel Capital Advisors
- X Mellon Capital Management Corporation
- Mellon Equity Associates
- X The Boston Company Advisors, Inc.
- The Boston Company Financial Strategies, Inc.
- X The Boston Company Institutional Investors, Inc.

The Item 3 classification of each of the subsidiaries listed under (A) above is "Item 3(b) Bank as defined in Section 3(a)(6) of the Act."

The Item 3 classification of each of the subsidiaries listed under (B) above is "Item 3 (e) Investment Advisor registered under Section 203 of the Investment Advisers Act of 1940."

EXHIBIT II

(A) Mellon Bank, N.A. is the trustee of the issuer's employee benefit plan (the "Plan") which is subject to ERISA. The securities reported include all shares held of record by Mellon Bank, N.A. as trustee of the Plan. The reporting person, however, disclaims beneficial ownership of all shares that have been allocated to the individual accounts of employee participants in the Plan for which directions have been received and followed.

(B) This number includes securities not outstanding which are subject to options, warrants, rights or conversion privileges that are exercisable within 60 days.

(C) The filing of this Schedule 13G shall not be construed as an admission that Mellon Bank Corporation, or its subsidiaries and affiliates, including Mellon Bank, N.A., are, for the purposes of this Section 13(d) or 13(g) of the Act, the beneficial owners of any securities covered by this Schedule 13G.