

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 2)

NAME OF ISSUER: Aluminum Company of America

TITLE OF CLASS OF SECURITIES: Aluminum Company of
America Common Stock

CUSIP NUMBER 022249-100

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

CUSIP NO. 022249-100

(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 Beneficially Owned by Each Reporting Person With	(5) Sole Voting Power	935,000
	(6) Shared Voting Power	3,582,438
	(7) Sole Dispositive Power	860,000
	(8) Shared Dispositive Power	1,350,000

(9) Aggregate Amount Beneficially Owned by Each Reporting Person 4,637,438

- (10) Check if the Aggregate Amount
in Row (9) Excludes Certain
Shares (See Instructions)
- (11) Percent of Class Represented 5.19
by Amount in Row (9)
- (12) Type of Reporting Person HC
(See Instructions)

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- 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 any other
reporting person(s) identified on the second
part of the cover page(s).
- Item 2(b) Address of Principal Business Office, or if None,
Residence:
c/o Mellon Bank Corporation
One Mellon Bank Center
Pittsburgh, Pennsylvania 15258
(for all reporting persons)
- Item 2(c) Citizenship:
United States
- Item 2(d) Title of Class of Securities:
Aluminum Company of America Common Stock
- Item 2(e) CUSIP Number:
022249-100
- Item 3 See Item 12 of cover page(s) ("Type of Reporting
Person") for each reporting person.
BK = Bank as defined in Section 3(a)(6) of the Act
IV = Investment Company registered under Section
8 of the Investment Company Act
IA = Investment Advisor registered under Section
203 of the Investment Advisers Act of 1940

SCHEDULE 13G (Continued)

EP = 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 240.13-d(1)(b)(1)(ii)(F)

HC = Parent Holding Company, in accordance with Section 240.13-d(1)(b)(1)(ii)(G)

Item 4 Ownership:

See Items 5 through 9 and 11 of cover page(s) as to each reporting person.

The amount beneficially owned includes, where appropriate securities not outstanding which are subject to options, warrants, rights or conversion privileges that are exercisable within 60 days. The filing of this Schedule 13G shall not be construed as an admission that Mellon Bank Corporation, or its direct or indirect subsidiaries, including Mellon Bank, N.A., are for the purposes of Section 13(d) or 13(g) of the Act, the beneficial owners of any securities covered by this Schedule 13G.

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.

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

N/A

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

All of the securities are beneficially owned by Mellon Bank Corporation and its direct or indirect 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.

SCHEDULE 13G (Continued)

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

See 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.

This filing is signed by Mellon Bank Corporation on behalf of all reporting entities pursuant to Rule 13d-1(f)(1) promulgated under the Securities and Exchange Act of 1934, as amended.

Date: January 19, 1995

MELLON BANK CORPORATION

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

EXHIBIT I

The shares reported on the attached Form 13G are beneficially owned by the following direct or indirect subsidiaries of Mellon Bank Corporation, as marked (X):

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

- (B) Franklin Portfolio Associates Trust
- X Laurel Capital Advisors
- X Mellon Capital Management Corporation
- X Mellon Equity Associates
- X The Boston Company Advisors, Inc.
- The Boston Company Financial Strategies, Inc.
- The Boston Company Asset Management, Inc.
- X The Dreyfus Corporation
- Dreyfus Management, 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."