

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 3)

NAME OF ISSUER: Aluminum Company of America

TITLE OF CLASS OF SECURITIES: 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. Of Above Person IRS No. 25-1233834(2) Check the Appropriate Box if a Member of a Group (See Instructions)
(a) () (b) ()

(3) SEC Use Only

(4) Citizenship or Place of Organization United States

Number of Shares (5) Sole Voting Power 2,627,000

Beneficially Owned by Each (6) Shared Voting Power 8,061,135

Reporting Person With (7) Sole Dispositive Power 2,663,000

(8) Shared Dispositive Power 2,575,000

(9) Aggregate Amount Beneficially Owned by Each Reporting Person
11,097,135(10) Check if the Aggregate Amount in Row (9) Excludes Certain
Shares (See Instructions) ()

(11) Percent of Class Represented by Amount in Row (9) 6.26

(12) Type of Reporting Person (See Instructions) HC

CUSIP NO. 022249-100

(1)	Names of Reporting Persons	MELLON BANK N.A.
	SS or IRS Identification Nos. Of Above Person	IRS No. 25-0659306
(2)	Check the Appropriate Box if a Member of a Group (See Instructions)	
		(a) () (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	1,775,000
	(6) Shared Voting Power	8,061,135
	(7) Sole Dispositive Power	1,981,000
	(8) Shared Dispositive Power	2,340,000
(9)	Aggregate Amount Beneficially Owned by Each Reporting Person	10,180,135
(10)	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)	()
(11)	Percent of Class Represented by Amount in Row (9)	5.74
(12)	Type of Reporting Person (See Instructions)	BK

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- Item 1(a) Name of Issuer: Aluminum Company of America
- Item 1(b) Address of Issuer's Principal Executive Offices:
Aluminum Company of America
1501 Alcoa Building Room 2002
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: 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 Adviser registered under Section 203 of the Investment Advisers Act of 1940

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.

The following information applies if checked: (X) 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: If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following ()

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 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).

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 29, 1996

MELLON BANK CORPORATION

By: WILLIAM L. DAWSON

William L. Dawson
Senior Vice President

Each of the undersigned hereby authorizes Mellon Bank Corporation, in accordance with Rule 13d-1(f)(1) under the Securities Exchange Act of 1934, as amended (the "1934 Act"), to file, on behalf of the undersigned, any statement required to be signed by the undersigned, on Schedule 13G pursuant to Rule 13d-1 under the 1934 Act and any amendment thereto pursuant to Rule 13d-2 under the 1934 Act.

Each of the undersigned represents that it is individually eligible to use Schedule 13G, and acknowledges its responsibility for the timely filing of such Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein. However, each of the undersigned is not responsible for the completeness or accuracy of the information concerning the other persons making the filing on Schedule 13G unless such undersigned knows or has reason to believe that such information is inaccurate.

Date: January 29, 1996

MELLON BANK, N.A.

By: WILLIAM L. DAWSON

William L. Dawson
Senior Vice President

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

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