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### FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| Check this box if no longer subject to |
|--|
| Section 16. Form 4 or Form 5           |
| obligations may continue. See          |
| Instruction 1(b).                      |

### STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

# OMB APPROVAL OMB Number: 3235-0287 Estimated average burden

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| hours per response:    | 0.5       |
|                        |           |

| 1. Name and Address of Reporting Person*<br><u>EMBRY WAYNE R</u> | 2. Issuer Name <b>and</b> Ticker or Trading Symbol <u>POLYONE CORP</u> [ POL ] | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br>X Director 10% Owner |
|--|--|--|
| (Last) (First) (Middle) POLYONE CENTER                           | 3. Date of Earliest Transaction (Month/Day/Year)<br>12/31/2004                 | Officer (give title Other (specify below) below)   |
| 33587 WALKER ROAD  | 4. If Amendment, Date of Original Filed (Month/Day/Year)                       | 6. Individual or Joint/Group Filing (Check Applicable Line)  |
| (Street)<br>AVON LAKE OH 44012                                   |  | X Form filed by One Reporting Person<br>Form filed by More than One Reporting<br>Person            |
| (City) (State) (Zip)   |  |  |

#### Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) |      |   |        |               |         | 5. Amount of<br>Securities<br>Beneficially<br>Owned Following<br>Reported | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |
|---------------------------------|--|---|------|---|--------|---------------|---------|---|---|---|--|
|                                 |  |   | Code | v | Amount | (A) or<br>(D) | Price   | Transaction(s)<br>(Instr. 3 and 4)  |   | (1150.4)  |  |
| Common Stock                    | 12/31/2004                                 |   | Α    |   | 463    | A             | \$9.165 | 11,102  |   | Deferred<br>Comp<br>Plan  |  |
| Common Stock                    |  |   |      |   |        |               |         | 10,547  | D   |   |  |

# Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (a, a, nute, calle, warrante, antione, convertible acquirities)

|   |   |  | (e.g., p  | uts, c                       | alls, | warr   | ants,                      | options, o          | convertib          | le sec  | curities)                              |   |  |  |
|---|---|--|---|------------------------------|-------|--|----------------------------|---------------------|--------------------|---|--|---|--|--|
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |       | of<br>Deriv<br>Secu<br>Acqu<br>(A) or<br>Dispo<br>of (D) | sposed<br>(D)<br>str. 3, 4 |                     | ate                | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr. 3<br>and 4) |  | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|   |   |  |   | Code                         | v     | (A)  | (D)                        | Date<br>Exercisable | Expiration<br>Date | Title   | Amount<br>or<br>Number<br>of<br>Shares |   |  |  |

Explanation of Responses:

By: Wendy C. Shiba, Power of 01/03/2005

Attorney For: Wayne R. Embry

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.