Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
Section 17(a) of the Public
Utility Holding Company Act of 1935 or Section 30(f) of the
Investment Company Act of 1940

1. Name and Address of Reporting Person *
MUELLER EDWARD A
(Last) (First) (Middle)
1221 BROADWAY
(Street)
OAKLAND, CA 94612-1888
(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
CLOROX CO/DE/ [ CLX ]

3. Date of Earliest Transaction (MM/DD/YYYY)
12/31/2010

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)
__ X ___ Director
__ 10% Owner
__ Officer (give title below)
__ Other (specify below)

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

<table>
<thead>
<tr>
<th>Title of Security (Instr. 3)</th>
<th>2. Trans. Date</th>
<th>2A. Deemed Execution Date, if any</th>
<th>3. Trans. Code (Instr. 8)</th>
<th>4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)</th>
<th>5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)</th>
<th>6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>7. Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred Stock Units</td>
<td>(1) 11/12/2010</td>
<td>A (2)</td>
<td>V</td>
<td>84.7700</td>
<td>9873.9405</td>
<td>D</td>
<td>1-for-1</td>
</tr>
<tr>
<td>Deferred Stock Units</td>
<td>(1) 12/31/2010</td>
<td>A (4)</td>
<td>V</td>
<td>1788.9400</td>
<td>11662.8805</td>
<td>D</td>
<td>1-for-1</td>
</tr>
<tr>
<td>Deferred Stock Units</td>
<td>(1) 12/31/2010</td>
<td>A (5)</td>
<td>V</td>
<td>434.5800</td>
<td>12097.4605</td>
<td>D</td>
<td>1-for-1</td>
</tr>
</tbody>
</table>

Explanation of Responses:
(1) 1-for-1
(2) Deferred Stock Units acquired through dividend reinvestment during the fiscal year pursuant to the Independent Directors' Deferred Compensation Plan.
(3) The Deferred Stock Units will be settled 100% in Clorox stock in connection with the reporting person's retirement or other termination of service as a Director.
(4) Annual award of Deferred Stock Units pursuant to the 2005 Stock Incentive Plan.
(5) Receipt of Deferred Stock Units in lieu of receipt of quarterly director's fees.
<table>
<thead>
<tr>
<th>Reporting Owner Name / Address</th>
<th>Director</th>
<th>10% Owner</th>
<th>Officer</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUELLER EDWARD A</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1221 BROADWAY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OAKLAND, CA 94612-1888</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signatures

By Angela Hilt, Attorney-in-Fact for 1/4/2011

** 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).


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 control number.