Form 4

United States Securities and Exchange Commission
Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

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
1221 BROADWAY
OAKLAND, CA 94612-1888

2. Issuer Name and Ticker or Trading Symbol

CLOROX CO /DE/ [ CLX ]

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

5/14/2010

4. If Amendment, Date Original Filed (MM/DD/YYYY)

5. Relationship of Reporting Person(s) to Issuer (Check all applicable)

___X__ Director

_____ 10% Owner

_____ Officer (give title below)

_____ Other (specify below)

6. Individual or Joint/Group Filing (Check Applicable Line)

_ X _ Form filed by One Reporting Person

___ Form filed by More than One Reporting Person

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

<table>
<thead>
<tr>
<th>Title of Security</th>
<th>Trans. Date</th>
<th>Deemed Execution Date, if any</th>
<th>Trans. Code (Instr. 8)</th>
<th>Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)</th>
<th>Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)</th>
<th>Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred Stock Units</td>
<td>5/14/2010</td>
<td>A (1)</td>
<td>69.85 (2)</td>
<td>1-for-1</td>
<td>Deferred Stock Units acquired through dividend reinvestment during the fiscal year pursuant to the Independent Directors' Deferred Compensation Plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred Stock Units</td>
<td>6/30/2010</td>
<td>A (4)</td>
<td>382.08 (3)</td>
<td>100% in Clorox stock in connection with the reporting person's retirement or other termination of service as a Director.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

<table>
<thead>
<tr>
<th>Title of Derivate Security</th>
<th>Conversion or Exercise Price of Derivative Security</th>
<th>Trans. Date</th>
<th>Deemed Execution Date, if any</th>
<th>Trans. Code (Instr. 8)</th>
<th>Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)</th>
<th>Date Exercisable or Expiration Date</th>
<th>Amount or Number of Shares Underlying Derivative Security</th>
<th>Price of Derivative Security</th>
<th>Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)</th>
<th>Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred Stock Units</td>
<td>(1)</td>
<td>6/30/2010</td>
<td>A (4)</td>
<td>382.08 (3)</td>
<td>Common Stock</td>
<td>382.08</td>
<td>$0</td>
<td>9353.4205</td>
<td>D</td>
<td></td>
<td></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. Receipt of Deferred Stock Units in lieu of receipt of quarterly director's fees.

Reporting Owners

Reporting Owner Name / Address | Relationships
MUELLER EDWARD A | X | 1221 BROADWAY | Director | 0% Owner | Officer | Other |
Signatures
By Cheryl Brice, Attorney-in-Fact for 7/2/2010
** 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.