



Proper disposal of fluorescent lamps/bulbs and the use of bulb crushing machines

The use of bulb crushing machines is increasing as several manufacturers have begun marketing their products in New Jersey. The proper operation of bulb crushing machines and disposal of mercury containing bulbs/lamps is extremely important to help reduce public exposure to harmful mercury emissions.

Crushing is the intentional breaking of fluorescent and mercury lamps for the purpose of volume reduction. Crushing reduces the physical volume of lamps but does not recover any mercury, which is a toxic substance and a hazardous air pollutant. Disposal of mercury containing lamps can release the mercury to the environment, potentially causing adverse health effects.

Bulb Crushers Constitute "Treatment "

In order for lamps to be managed under the Universal Waste Rule, "treatment" by handlers or transporters is not allowed. Under federal regulations, crushing is considered a type of treatment. Generators who treat their own lamps may do so, but when they do the lamps lose their "Universal Waste" status and are considered fully-regulated hazardous waste, subject to numerous more stringent federal and state standards than Universal Wastes (40CFR262, N.J.A.C 7:26G) such as reduced accumulation time, biennial reporting, and manifesting.

Bulb Crushers Require Air Permits

If a facility chooses to treat the bulbs themselves by using a bulb/lamp crushing machine they will also be required to obtain an air permit per N.J.A.C. 7:27-8.2 (c) 17. The current fee for a preconstruction permit and operating certificate is \$1,500.00. The renewal fee is \$750.00. The Department requires that bulb-crushing equipment have a positive ventilation of the process and broken bulb container through a filter and mercury control, such as a carbon bed. The mercury containing carbon, or other adsorbent, must then be properly recovered or disposed so the mercury is not emitted to the air. Failure to obtain an air permit or to adequately control mercury emissions in accordance with Department's regulations can result in the issuance of civil administrative penalties of up to \$10,000.00 for the first offense.

Treating Bulbs as a Universal Waste Without a Bulb Crusher

For proper disposal as a Universal Waste, spent lamps should be placed in containers or packages that are adequate to prevent breakage and sent to an appropriate recycling facility (see internet address below for a list).

COMPLIANCE ADVISORY

Who should I contact with questions?

Division of Solid & Hazardous Waste (609) 633-1418

Air Quality Bureau of Preconstruction Permits (609) 633-2829 or (609) 292-6716

Where can I get more information?

The following web sites can be accessed for additional information regarding this advisory:

A summary of Solid and Hazardous Waste rules can be found at:

<http://www.nj.gov/dep/dshw/lrm/uwaste/uwmerc.lamps.htm>

A list of recycling facilities, which accept fluorescent lamps, can be found at:

<http://www.state.nj.us/dep/dshw/lrm/uwaste/uwlamp1st.htm>

For further information a Hazardous Waste Lamp Fact Sheet can be found at:

<http://www.state.nj.us/dep/dshw/lrm/uwaste/uwmerc.lamps.htm>

Air pollution rules can be found at:

<http://www.state.nj.us/dep/aqm/rules.html>

Air Permitting procedures can be found at:

<http://www.state.nj.us/dep/aqpp/radius.html>

Visit the following Web site for general information:

Contact NJDEP: <http://www.nj.gov/cgi-bin/dep/contactdep.pl>

Please note this advisory is intended to be a summary explanation of a department initiative. It does not include all potentially applicable requirements. If you have any questions related to compliance with this initiative, please contact the numbers listed above.