

### 3.9 Paper Shredder

#### 3.9.1 General Description of Source Category

The paper shredder is located at TA-52-11 and has been in operation since 1991. It replaced an original shredder previously installed in the mid-1960s. The shredder is capable of data destruction of paper, microfiche, film, plastic magnetic tape, and compact discs. The shredded material in powder form is vacuumed outside of the building into a container, which is then transported to the county landfill. No contaminated materials are shredded in this process.

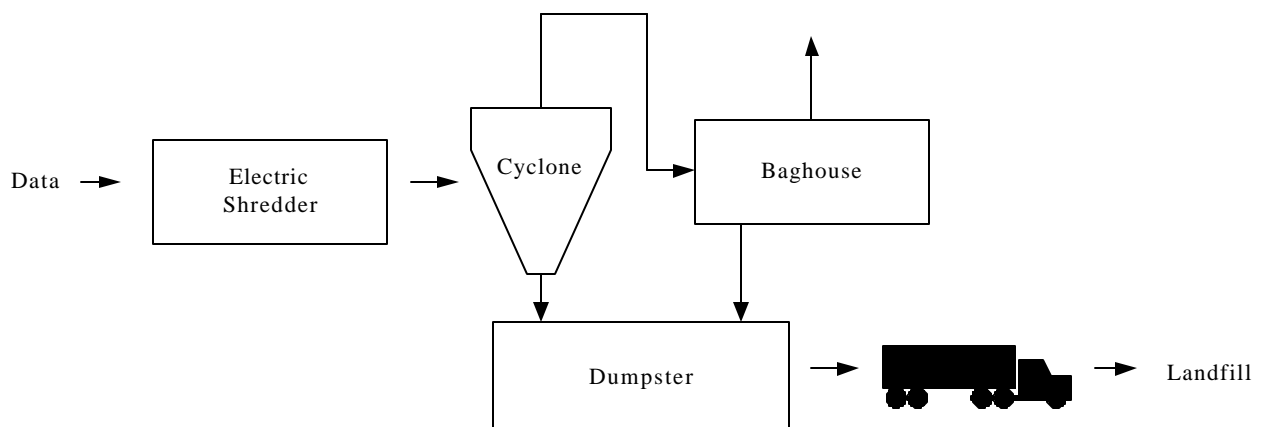
#### 3.9.2 Operating Schedule

The maximum capacity of the shredder is 300 pounds of material per hour, 8760 hours/year for a total of 1314 ton/year of material shredded. However, the actual operating hours are more accurately characterized by a schedule of 300 pounds of material per hour, 6.5 hours per day, 5 days per week for a total of 253.5 ton/year of material.

#### 3.9.3 Process Flow Diagram

A process flow diagram for the paper shredder is provided in Figure 3.9-1.

**Figure 3.9-1. Process Flow Diagram for Paper Shredder**



### 3.9.4 Emissions

Paper shredding operations are a source of particulate air emissions. The manufacturer, Security Engineered Machinery (SEM), estimates that one percent of the materials loaded into the machine will be emitted as particulate emissions. The cyclone is estimated to provide a 90% control efficiency and the baghouse is estimated at 99% efficiency. The estimated emissions are based on the following calculation method and shown in Table 3.9-1.

$$\text{Uncontrolled Emission Rate} \left( \frac{\text{lb}}{\text{hr}} \right) = 300 \frac{\text{lb}}{\text{hr}} * (0.01)$$

$$\text{Controlled Emission Rate} \left( \frac{\text{lb}}{\text{hr}} \right) = 300 \frac{\text{lb}}{\text{hr}} * (0.01) * \left( \frac{100 - 90}{100} \right) * \left( \frac{100 - 99}{100} \right)$$

**Table 3.9-1. Emissions Estimates from the Paper Shredder**

Emissions	PM	
	lb/hr	ton/year
<b>Uncontrolled</b>	3	13
<b>Controlled</b>	0.003	0.013

### 3.9.5 Emissions Control Equipment

The paper shredder has a 3 hp exhaust system equipped with both a cyclone and a baghouse to control particulate emissions.

### 3.9.6 Applicable Requirements

The paper shredder is not subject to any applicable requirements. See Table 3.9-2.

**Table 3.9-2. Applicable Requirements for the Paper Shredder**

Source Category	Applicable Requirement
Paper Shredder (TA-52-11)	<p><b>Operating Requirements:</b></p> <ul style="list-style-type: none"> <li>There are no operational requirements.</li> </ul>

### **3.9.7 Proposed Monitoring, Recordkeeping, and Reporting**

There is no proposed monitoring or recordkeeping because no applicable requirements apply to this source.

**Table 3.9-3. Proposed Monitoring, Recordkeeping, and Reporting for the Paper Shredder**

<b>Source Category</b>	<b>Monitoring, Recordkeeping, and Reporting</b>
Paper Shredder (TA-52-11)	<p><b><i>Monitoring/Recordkeeping:</i></b></p> <ul style="list-style-type: none"> <li>• None.</li> </ul> <p><b><i>Reporting:</i></b></p> <ul style="list-style-type: none"> <li>• Report criteria pollutant emissions on a semiannual basis. (20.2.73.300 NMAC and LANL proposed condition semiannual basis)</li> <li>• Submit semiannual report of any required monitoring within 45 days from the end of each reporting period. The reporting periods are January to June and July to December. (20.2.70.302(E)(1) NMAC)</li> </ul>