

## **E-Scrap Certification/Permits Sub-Group Proposed Levels**

### **Registration – Level 1 (Silver?)**

1. Voluntary Registration with the Department of Natural Resources.
2. Registration would be by a fill in form over the Internet.
3. The registration form is the Electronics Recovery Host Site Self-Audit Form
4. Once accepted, all electronics managers at this level will be listed on a department web page and a clickable link will lead to the filled in self-audit form and all inspection reports.
5. The Newly Organized Missouri Electronics Scrap Best Management Practices (NOMESS BMPs) are standard operating procedures
6. A one page annual registration/re-certification will be submitted by Internet fill in form to stay on the web page, it will include: basic company information, the maximum inventory of electronics in pounds, the number of pounds of electronics accepted in the last year, the number of pounds of electronics shipped out in the last year, and the number of pounds of electronics on-hand. It would also ask how many pounds of the electronics accepted were from individuals and how many were from businesses. There will be a certification statement signed by a corporate officer or non-profit board member that the NOMESS BMPs are followed.
7. Level 1 would entail recycling at least 80% of materials from electronics, as stated in the annual registration/re-certification form
8. A fee based on covering the costs of the program, annual fee of \$350 was proposed to cover the costs of an inspection and data verification/entry
9. There will be a site visit by the department at registration and once every 3 years thereafter (the estimated cost of this is \$1,000 per visit, these inspections and the data verification/entry will be what the annual fee pays for)

### **Registration – Level 2 (Gold?)**

1. Voluntary Registration as for Level 1, above, plus
2. A “financial responsibility for closing cost” estimate based on the maximum pounds of inventory certified to annually as above. A corporate officer or non-profit board member must certify the cost estimate. A demonstration of financial responsibility at least equal to the closing cost estimate will be required. (Preliminary costs for financial responsibility will be developed with industry input.)

3. This cost estimate will be submitted to the department with either one of the methods of closure financial assurance in 40 CFR 264, Subpart H or with a legal contract with other registered electronics manager(s) or an environmental company to close the facility.
4. Level 2 would entail recycling at least 90% of materials from electronics, which would be stated on the annual registration/re-certification form.
5. The department will review the cost estimate and financial assurance mechanism. If they are acceptable, the company will receive a gold level registration. An additional \$350 fee per year will defray the costs of the annual financial assurance review. The total estimated cost of administering this level is estimated as  $\$350 + \$350 = \$700$  per year.

### **Registration – Level 3 (Platinum?)**

1. Voluntary Registration with financial assurance for closing as for Levels 1 and 2, above, plus
2. To obtain a Level 3 Registration, used electronics managers may either:
  - submit documentation that an outside group (ISO 14001, IERA, ISRI(RIOS), possibly others) has certified their EMS (The cost of the outside EMS certification depends on the outside group involved. The department's estimated cost for this option is the same as for Level 2, \$700 per year), or
  - used electronics managers may submit an application for a voluntary R2 resource recovery certification from the department. The application would contain discussions of how the BMPs are met and the other elements of a resource recovery certification application. (This is generally a less expensive option to be listed at Level 3 than the outside group EMS certifications given above. The additional cost will be \$1000 every 2 years application fee and an estimated \$800 per year for engineering review time. The total estimated cost of level 3 registration by R2 resource recovery certification is therefore  $\$700 + \$1300 = \$2000$  per year.)
3. Level 3 registration would entail recycling 100% of materials from electronics, which would be stated on the annual registration/re-certification form.

<b>Registration Level</b>	<b>Requirements</b>	<b>Cost [What You Get for the Fee]</b>	<b>Advantages/ Disadvantages</b>
Level 1 Silver?	<ol style="list-style-type: none"> <li>1. Voluntary Registration</li> <li>2. Follow BMPs</li> <li>3. Registration Form on Internet</li> <li>4. Site Visit at Registration and Every 3 Years</li> <li>5. Annual Report on the Internet (Throughput, Inventory)</li> <li>6. Recycle at least 80% of materials</li> </ol>	\$350/year [initial inspection, verification inspections every 3 years, listing on the web site as Silver Registration Level, data verification]	Advantages <ol style="list-style-type: none"> <li>1. Voluntary</li> <li>2. Relatively inexpensive</li> <li>3. Good advertising</li> <li>4. Government Registration</li> <li>5. Simple Internet forms for application</li> <li>6. Simple annual re-certification forms/reports</li> <li>7. Includes a site visit</li> <li>8. Consumers can choose company that follows BMPs.</li> </ol> Disadvantages <ol style="list-style-type: none"> <li>1. Not required for all</li> <li>2. Does not prevent bad actors or illegal activities</li> <li>3. Some cost</li> <li>4. Reporting and record keeping, increased business costs</li> </ol>
Level 2 Gold?	<ol style="list-style-type: none"> <li>1. All the items for Silver Level, above</li> <li>2. A financial responsibility for closing cost estimate certified by an officer or board member</li> <li>3. Submission of the costs to the department with a financial assurance mechanism</li> <li>4. Recycle at least 90% of materials</li> </ol>	\$700/year [initial inspection, verification inspections every 3 years, listing on the web site as Gold Registration Level, data verification, closure cost estimate and financial assurance review]	Advantages <ol style="list-style-type: none"> <li>1. Demonstration of a higher level of responsibility for business marketing</li> <li>2. Voluntary</li> <li>3. Relatively inexpensive</li> <li>4. Good advertising</li> <li>5. Government Registration</li> <li>6. Simple Internet forms for application</li> <li>7. Simple annual re-certification forms/reports</li> <li>8. Includes a site visit</li> <li>9. Higher level of comfort for consumers and regulators</li> <li>10. Consumers can choose company that follows BMPs with closing cost assurance</li> </ol> Disadvantages <ol style="list-style-type: none"> <li>1. Increased costs</li> <li>2. Money may be tied up in a financial assurance mechanism</li> </ol>

Registration Level	Requirements	Cost [What You Get for the Fee]	Advantages/ Disadvantages
Level 3 Platinum?	<ol style="list-style-type: none"> <li>1. All the items for Gold Level, above</li> <li>2. Either Submit acceptable proof of EMS certification by outside group or obtain a voluntary R2 resource recovery certification</li> <li>3. Recycle 100% of materials</li> </ol>	\$700/year for the above, plus the cost of either: <ol style="list-style-type: none"> <li>1. third party EMS certification [cost varies according to the type] OR</li> <li>2. an R2 resource recovery adds \$1300 per year for a \$2000 per year total [as above with a review of the R2 application]</li> </ol>	Advantages <ol style="list-style-type: none"> <li>1. Maximum demonstration of responsibility for business to business marketing</li> <li>2. Credit for prior EMS certification</li> <li>3. Consumers can choose companies with better practices if they want to</li> <li>4. Highest level of comfort for consumers and regulators</li> </ol> Disadvantages <ol style="list-style-type: none"> <li>1. Highest Cost</li> </ol>

**Points Discussed During the Meeting:**

- DNR should make registration form electronic and available online
- Concerns were expressed about the implications of every electronics recycler being listed on the web site, even those categorized in the draft ‘Level 1’. People were worried that the public would assume even the Level 1 recyclers were inspected.
- The group decided that a self-audit would not be enough oversight for a recycler to be listed on DNR’s web site. Level 1 was combined with Level 2.
- The group discussed the components of the self-certification, including the record keeping, consideration of confidential business information, throughput of the facility, and the length of the submittal.
- The decision was made to protect confidential business information by not having companies submit detailed reports, only the tonnage of material in and out. Volume will not be reported in number of units. The submittal to DNR should be kept to one page in length.
- It was decided that the basic level of registration would include an initial inspection, yearly self-audits, yearly submittal of reports to DNR, and a follow-up inspection after three years. DNR would also provide compliance assistance information to this level.
- The group discussed how the new CRT rule would affect the self-audits and reports submitted to DNR.
- The group discussed if everyone should be required to use a registered recycler. It was decided that it would not be necessary to require people to use registered recyclers.

- The closure plan was described as a cost estimate for the worse case scenario. To control environmental liability it was suggested that cooperative agreements between companies be established, or environmental insurance, closure bond, corporate financial tests, or responsible parties (computer manufacturers, the generators, etc) be used.
- The contamination of the site and cost to dispose of electronics would be relatively low compared to other hazardous waste sites.
- Coming up with the cost estimate for a closure plan was debated. The group decided a register engineer would not be needed for the cost estimate. Instead a company's corporate official or a non-profit's board of director would sign the estimate.
- It was suggested that the per monitor cost for disposal of a CRT (minus the profit from the sale of plastics, copper, etc) multiplied by the largest number of monitors that the business plans to receive could be used to calculate the bond.
- The cost of registering for the different levels was discussed. The departments estimate for the cost of inspections was \$1,000. The costs include preparing for the inspection, travel to and from the inspection, the inspection itself, support staff and administrative costs.
- The costs seemed high to the group. Because registration is voluntary and not required it seemed appropriate that the actual costs of the services should be paid for by the businesses that received them. It was decided that the costs should be broken up over three years and due annually to avoid deterring anyone from opening a business and registering. The group agreed that the costs were comparable to advertising in the yellow pages or to hiring a consultant.

### **Questions for the Group:**

1. Is there a better term for closure plan? Something that better reflects it is essentially the removal and proper disposal/recycling of electronics?
2. What should the levels of registration be called? Perhaps something that gives the average Missourian the connotation that the degree of oversight with each level, such as silver, gold, platinum? Other suggestions?
3. Is there a better term for the financial assurance associated with the cost estimates?