Waste batteries contain heavy metals and harmful chemicals such as lead, mercury, cadmium, lithium, electrolytes, etc. If discarded indiscriminately, they can contaminate soil, water sources, and even pose a threat to human health through the food chain. The following is an explanation of environmental protection measures for waste batteries:

废电池含有重金属和有害化学物质（如铅、汞、镉、锂、电解液等），若随意丢弃会污染土壤、水源，甚至通过食物链危害人体健康。以下是废电池的环境保护措施说明：

1. Classification collection 分类收集

Rechargeable batteries (such as nickel cadmium, nickel hydrogen, lithium-ion batteries): containing heavy metals or harmful substances, must be recycled.

充电电池（如镍镉、镍氢、锂离子电池）：含重金属或有害物质，必须回收。

2. Recycling channels 回收渠道

Community recycling points: Some communities have dedicated recycling bins for waste batteries.

社区回收点：部分小区设有废电池专用回收箱。

Supermarkets/shopping malls: Some electronic product stores (such as Suning and Xiaomi Home) provide recycling services.

超市/商场：部分电子产品卖场（如苏宁、小米之家）提供回收服务。

Electronic waste treatment center: You can inquire about legitimate recycling institutions through the local environmental protection department.

电子废物处理中心：可通过当地环保部门查询正规回收机构。

3. Safe storage and transportation 安全存放与运输

Anti short circuit: The battery electrodes are taped together to prevent friction and fire.

防短路：电池电极用胶带粘贴，避免摩擦起火。

Leak prevention: Place waste batteries in a sealed container (such as a plastic box) to prevent electrolyte leakage.

防泄漏：将废电池放入密封容器（如塑料盒），避免电解液渗出

Avoid high temperature and humidity: Store in a cool and dry place, away from flammable materials.

避免高温潮湿：存放于阴凉干燥处，远离易燃物。

4. Professional processing techniques 专业处理技术

Physical sorting: Separating metals and plastics through crushing and magnetic separation.

物理分选：通过破碎、磁选分离金属和塑料。

Chemical extraction: Recovery of metals such as lead, cadmium, lithium, etc. using acid leaching method.

化学提取：用酸浸法回收铅、镉、锂等金属。

High temperature melting: Burning organic matter and recovering heavy metals (strict pollution control is required).

高温熔炼：焚烧有机物并回收重金属（需严格控污）。

Harmless landfill: Conduct anti-seepage treatment on waste residues that cannot be recycled.

无害化填埋：对无法回收的废渣进行防渗处理。

5. Prohibited behaviors 禁止行为

❌Burning waste batteries (releasing toxic gases).

焚烧废电池（释放有毒气体）。

❌Disassemble the battery (electrolyte corrodes the skin, lithium is flammable when exposed to water).

拆解电池（电解液腐蚀皮肤，锂遇水易燃）。

❌Mixing with ordinary garbage (increasing pollution risk).

混入普通垃圾（增加污染风险）。

6. Policies and Regulations 政策与法规

China: The "Technical Policy for Prevention and Control of Waste Battery Pollution" requires the extension of producer responsibility and encourages recycling and reuse.

中国：《废电池污染防治技术政策》要求生产者责任延伸，鼓励回收利用。

EU: According to the Battery Directive, the battery recycling rate must be above 45%.

欧盟：根据《电池指令》电池回收率需达 45%以上。

USA: Regulated by EPA, each state has strict regulations on lead-acid battery recycling.

美国：由 EPA 监管，各州对铅酸电池回收有严格规定。

7. Suggestions for public participation 公众参与建议

Purchase low mercury/mercury free batteries and choose rechargeable batteries.

购买低汞/无汞电池，选择可充电电池。

Participate in recycling activities initiated by environmental organizations.

参与环保组织发起的回收活动。

Promote knowledge about battery hazards and encourage community recycling.

宣传电池危害知识，推动社区回收。

Tip: The specific handling method may vary depending on regional policies. It is recommended to consult with the local environmental protection department or the "12369" environmental hotline.

提示：具体处理方式可能因地区政策而异，建议通过当地环保部门或“12369”环保热线咨询。

Through the above measures, the harm of waste batteries to the environment can be minimized to the greatest extent possible, and resource recycling can be promoted.

通过以上措施，可最大限度减少废电池对环境的危害，促进资源循环利用。