

Developing Environmental Certification For Lead Battery Manufacturing: Challenges & Opportunities



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Disclaimer

Participation in the Green Lead Workshop does not constitute an endorsement of the Green Lead initiative or name.

Lead Poisoning Epidemic In Developing Countries

- The World Health Organization estimates that 120 million people are overexposed to lead and 99 percent of the most serious cases are in the developing world.
- Children most severely effected (school performance, IQ, mental retardation, anemia, GI tract, kidney damage & other symptoms)

“These dangers can be obviated by installing hoods and exhausts to carry off fumes and dust, by substituting machine for hand work, by providing ample washing facilities for the workmen and insisting on strict cleanliness on their part, by providing a separate lunch room as the only place where food may be kept and eaten, and by keeping the premises where the work is carried on clean and free from dust.”

Alice Hamilton, M.A., M.D., “Lead Poisoning in the Manufacture of Storage Batteries”, 1914

Review of Published Literature

- 30 studies published since 1993
- 22 studies from 15 countries reported worker blood lead levels averaging 52.8 µg/dl.
- 4 studies among workers in recycling and repair facilities average blood lead level of 66.1 µg/dl.
- Average airborne lead exposure - 137.9 µg/m³

Review of Published Literature

- 4 studies published since 1998 report average blood lead levels of children residing in close proximity to battery manufacturing and recycling plants
- demonstrate an average blood lead level of 39.3 µg/dl

Situation Overview

- Need to introduce universal environmental standards for the lead battery industry has been recognized by governments, environmental and consumer advocates including:
 - UN Environment Program Basel Convention
 - NAFTA's Commission for Environmental Cooperation
 - Environmental Defense
- Indian law requires certification and eco-labeling of lead batteries

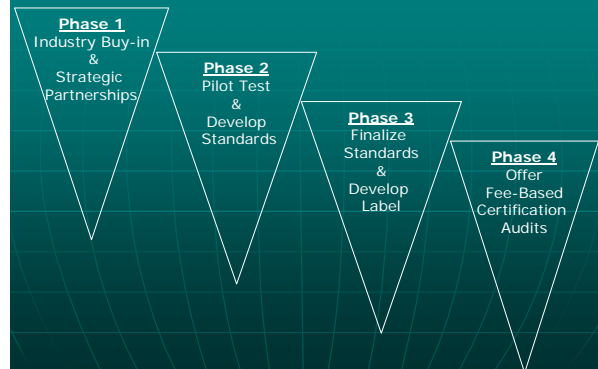
Organizational Overview

- Occupational Knowledge International (OK International) seeks to reduce lead poisoning worldwide by establishing an environmental auditing and certification program for lead battery manufacturing facilities.
- First to offer an independent auditing, certification and labeling program for the battery industry
- Pilot testing the audit protocol in India in order to finalize certification standards and gain industry acceptance.
- This project will serve as a model for corporate responsibility

Business Model

- Certification based on performance standards
- Annual audits (conducted by accredited auditors in country)
- International advisory board sets universal standards
- Certified companies can place ecolabel on batteries
- OK International serves as licensing agent with fees based on production volume

The Four Phase Plan



Corporate Responsibility Ladder



Why companies participate?

- To build or fortify a brand
- Large purchaser requirement (GM & Ford already require ISO 14001)
- Companies want to level the playing field
- Marketing opportunity

Key to Success

- Clearly stated objectives
- Independence from industry
- Not trade restrictive
- Scientifically sound & verifiable
- No false & over-reaching claims
- Progressive performance targets
- Stakeholder partnership process
- Community & NGO Involvement in standard setting, governance structure, and ongoing monitoring

Objectives Are Key

- Are they verifiable? Are you promising more than you can deliver?
 - "Green"
 - "to minimise people and planet exposure to lead"
 - "to achieve zero harm from lead exposure"
 - "use of best practices"
 - "Environmentally Sound Management"
 - "improve ecological, social and environmental performance"

Concrete and Specific Claims

- To improve some output (e.g. lower emissions)
- To collect X percent of used batteries for proper recycling
- To reduce lead exposures in affected communities
- Must be measurable and verifiable



- Code of Good Practice for Social and Environmental Standards
- Outline of standard setting
- Provide oversight and legitimacy process

Partnership Approach

- Cross-sector collaboration required to address the most intractable problems.
- Requires recognizing the needs and objectives of each partner and agreeing to work together to a common goal.
- Principles:
 - Equity
 - Transparency, and
 - Mutual Benefit

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Further Reading.....

<http://www.okinternational.org/lead.html>

"Lead Poisoning in the Manufacture of Storage Batteries",
Alice Hamilton, M.A., M.D., 1914.