



The Green Lead Project

The Pilots Prepare to Take Off

**‘Regional Strategy for the Environmentally
Sound Management of the Used Lead Acid
Batteries’**

Steering Committee Meeting

San Salvador

January 2006

Brian Wilson

Green Lead Working Group



The Green Lead Journey

"Green Lead" was a vision that began life with the BHP Billiton Company in Australia. It was an idea about extending supply chain management to include not only quality, but sound environmental and occupational health practices in the procurement of materials and services, and to maintain those sound practices throughout the Life Cycle of Lead Acid Batteries.

Growing interest in this "concept" led to a bringing together of some key stakeholders in the "Green Lead" initiative to a Green Lead Workshop held in London at the end of April 2004.

The outcomes of the first Green Lead Workshop included commitments to define protocols of Performance in the Lead Acid Battery Life Cycle and identify companies in the lead industry that might be interested in testing a series of proposed Green Lead protocols to ascertain whether they could be an effective means of Product Stewardship throughout the Product Life Cycle of Lead Acid Batteries.

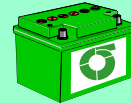
So, at the Second Green Lead Workshop held just five weeks ago in London, it was time for a Reality Check!

Did we do what we set out to achieve over the last twelve months and do we have the support and commitments to move on to the next stage? Yes we do, but how do we move forward?

Green Lead™

The Way Forward.....

1. Business Case for Green Lead
2. Protocols for Performance
3. Audit Procedures
4. Credibility



The Way Forward

In order to move the Project forward there are four conditions to consider that are essential to Green Lead, and they are:

1. A sound Business Case for the investment of time and resources in Green Lead Certification
2. Written protocols of Performance for Certification covering:
 - Environmental Protection
 - Health and Safety
 - Employment Practices
 - Social Responsibility
 - Communications
 - Sustainability
3. Verifiable and independent third party audit procedures for Green Lead Certification.
4. Recognition from Government Agencies, Intergovernmental Bodies, NGOs and Customers that a Green Lead Battery is one that has been produced in an environmentally sound manner, at plants that are safe and healthy places of work and are run in a manner that provides for sustainable development and respect for local communities, that is, Green Lead Certification is a credible guarantee of Best Practice.

Green Lead Business Case

Provides Long Term Future because:

1. Guarantees Best Practice
2. Closed Life Cycle Loop
3. Raises Public Awareness
4. Third Party Certification
5. Promotes Good Customer/Supplier Relationship
6. Restricts Informal Activity



The Business Case

As far as the Business Case is concerned, the debate continues, but already several compelling reasons why the Industry should invest in Green Lead have been identified.

Firstly, Green Lead Certification will be a Guarantee of Best Practice throughout the Product Chain, and that is not only environmental management, but occupational health, employment, social responsibility and recovery methodologies.

The adoption of a Green Lead regime will ensure that throughout the Product Chain the same protocols of Product and Business Ethics will prevail.

The public education and awareness requirements of Green Lead will ensure a greater public awareness of their responsibilities towards the purchase of environmentally sound battery products and their safe disposal.

Furthermore, these benefits will be confirmed through third party Certification to ensure the integrity of Green Lead as symbol of Care and Sustainability.

The close links prompted by the requirements of Product Chain Management will encourage the closest possible working relationship between suppliers and customers ensuring Best Practice in the procurement, transport, recovery and sale of lead acid batteries and all the materials required to produce them.

Finally, and for many counties one of the most important reasons for adopting Green Lead, the Green Lead regime severely restricts access to used lead acid batteries by the informal sector, thereby eliminating the worst possible practices in environmental management and employment.

Green Lead™ Protocols

Why have Green Lead Protocols?

- More rules!*
- More paper!*
- Less work!*



Why Have Green Lead protocols?

Some of you might be asking the questions, “Why have Green Lead protocols? Why not have a Code of Practice for Green Lead instead? Others might be thinking, “Doesn’t the Industry suffer enough already with national and local regulations, international conventions and global protocols, so why do we need another protocol? And some of you might even have gone so far as to as to be thinking that Green Lead protocols will only lead to “More Rules”, another “Mountain of Paperwork” and a “Reduction in the Core Work of the Business”.

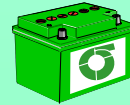
I am sure there are also delegates here today that are thinking, “What is wrong with being certified to ISO 14001 and OHSAS 18001?” *Isn’t that sufficient?*

Green Lead™ Protocols

ISO 14001 and OHSAS 18001

.....Does not check

- ✗ Operating practices!!
- ✗ Sustainability
- ✗ Life Cycle Management
- ✗ Product recycling
- ✗ Social issues



ISO 14001 and OHSAS 18001 Certification

However, ISO 14001 and, to an extent, OHSAS 18001 does not check :

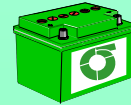
- ✗ The day to day operating practices adopted by employees, that is observing whether the employees follow the written procedures correctly.
- ✗ The sustainable management of resources and raw materials, such as water, power, feedstock and reagents. Neither does the audit check that all the recyclable materials in the ULAB are recovered.
- ✗ How the ULAB recovery process fits into the life cycle of the LAB. There are few checks, if any, on the environmental, health and safety performance of suppliers and none on customer behaviour.
- ✗ That the ULAB are designed to be recycled and are labeled in a way that promotes sound recovery.
- ✗ The way the public contribution to the life cycle is influenced and community responses to the life cycle performance.

For many Governments, NGOs and local community and environmental groups these shortcomings are representative of areas of ongoing concern and the basis for criticism of the industry.

Green Lead™ Protocols

Holistic

- ✓ Environmental Management System
- ✓ Safety
- ✓ Hygiene
- ✓ Recycling Procedures
- ✓ Sustainable Resource Strategies
- ✓ Employment Practices
- ✓ Outreach Activities



Green Lead protocols

Green Lead, however, is comprehensive and holistic embracing all that ISO 14001 and OHSAS 18001 measures so that it covers:

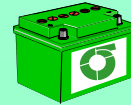
- Environmental Management Systems
- Safety
- Hygiene
- Recycling Procedures
- Sustainable Resource Strategies that includes Site Abatement and
- Employment Practices
- Outreach Activities, including Customer Education and Advice

Where limit values are required, for example, for occupational lead restriction, lead in air levels and so on, the Green Lead protocols will adopt either the prevailing national legislation or international agreed protocols or conventions.

Green Lead™ Protocols

Focus is:

- *Product Chain Management*
- *Communication Links*
- *Continuous Improvement*
- *Recycling*
- *Social Issues*



Green Lead protocols - Focus

Whereas traditional environmental management focuses upon minimizing environmental impacts within a particular company or at a specific site. Green Lead extends the responsibility for products throughout the product chain and the focus includes the effective communication, monitoring and implementation of the protocols between the links in the product chain.

In principle, this means that a Green Lead Program would not only direct all sectors in the life cycle of a Lead Acid Battery, that is, the Mines, the Smelters, the Battery manufacturers, Consumers and the Recyclers in practices and procedures that minimize or negate any potential adverse impacts on either the environment or the population, but would improve its performance through the monitoring process.

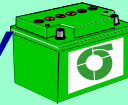
Furthermore, and unlike any other protocol, Green Lead examines recycling, and not just the process and regulatory compliance, but customer product awareness, recycling promotions, used lead acid battery collection and transport systems for the ULAB.

Finally, Green Lead incorporates important social dimensions, such as community engagement and adherence to the criteria for this component of Green Lead Certification in respect of workers rights and social development will be in line with the International Labour Organization's (ILO) 1998 Declaration on the Fundamental Principles and Rights at Work.

Green Lead™ Protocols

Benefits

- ✓ **Helpful** - *guidelines*
- *options*
- *best practice notes*
- ✓ **Promotes** - *sharing good ideas*
- *recycling*
- *social awareness*
- ✓ **Reduces** - *informal activity*



Green Lead protocols – Benefits

Unlike other protocols, Green Lead not only sets out the criteria for each element, but the protocols will also provide helpful guidance to meet the protocols. In many instances within the body of the text there will be a number of options or examples of best practice that can be considered by potential Green Lead partners in order to achieve compliance.

The way the Green Lead protocols are applied and monitored throughout the product chain also promotes:

- The sharing of good ideas through good communication and use of the Corrective Action Model for root cause analysis,
 - Battery recycling through better understanding by users
- and
- Raises the levels of social awareness.

As already mentioned, adherence to the Green Lead protocols keeps used lead acid batteries within the Green Lead Certified community and severely restricts the availability of used lead acid batteries to the informal sector, thereby reducing their activity levels and the adverse impacts on population health and the environment.

Green Lead™ Audits

1. Internal Audits

- for continuous improvement

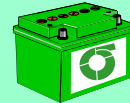
2. External Third Party Audit

- for Green Lead Certification

3. External Work Group Assessment

- to review operations to:

- *Provide performance feedback*
- *Test the protocols*



Green Lead Audits

The necessary Audit Procedures for Green Lead fall into three distinct categories.

1. The first category is the “Internal Audit”. Internal Audits are conducted by trained assessors at their own operations and at links one up and one down the Product Chain. The Internal Audit process is designed to not only identify any non compliance with the Green Lead protocols at an early stage, but to maintain a regular means of applying a process of continuous improvement through fault finding and root cause analysis using the Corrective Action Model.
2. The second category is the External Audit Procedure for Green Lead Certification. The Certification Audit will be conducted by an Independent Third Party team and they will ensure compliance within an operation and at least one link up and down the chain, albeit in the case of battery retailers this will be on a random sample basis.
3. The Third Category is the External Green Lead Work Group Assessment. This is not an Audit, but is an assessment of Green Lead compliance by members of the Green Lead Work Group and such an assessment would be made to provide feedback on Green Lead compliance or identify any areas for further development, such as communication links and so on. Alternatively, such an assessment can be used to check the applicability of any of the Green Lead protocols to a particular operation or phase of the life cycle.

Green Lead™ Audits

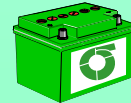
When to move to Certification?

When the

✓ protocols are checked & robust

✓ Candidates are ready

✓ Audit process is approved



When to move to Green Lead Third Party Certification

Third party audits for Green Lead certification can begin once the protocols have been checked and found to be robust, the prospective organizations are satisfied that they are in compliance and interested parties and stakeholders have contributed to and approved the audit processes.

Green Lead™ Certification

Credibility – requires.....

★ Track Record - ☹ ☹ ☹ ☹

So.....

🔍 Pilot Schemes to test:

- ❖ **Scope**
- ❖ **Discernment**

To Gain Credibility.....

In order for Green lead to gain credibility throughout the Lead Industry, and amongst Government Agencies, International Intergovernmental bodies and Environmental NGOs, it needs to establish a track record across the whole of the Lead Life Cycle for Lead Acid Batteries, including the initial primary mining and smelting stages; the Automotive Battery manufacturers; the customers, and not only car drivers, but especially the major bulk users such as motor manufacturers or telecommunications companies; and finally the used lead acid battery recyclers, including their ULAB collection networks.

However, at the moment, there is no track record and in order to gain one, Green Lead will initially have to be tested in a way that examines the protocols to determine whether they cover all the relevant aspects of Sound Management within the Lead Acid Battery Life Cycle and effectively discriminate between good and unsatisfactory practices.

For these reasons, and the fact that the Audit procedures also need to be trialled, the next phase of the Green Lead Project will be a series of Pilot Schemes at organizations representative of the various stages in the Lead Acid Battery Life Cycle.

Green Lead™ Pilots

Invitation Criteria:

- ✓ Committed to ESM
- ✓ Honest and Open Reporting
- ✓ OECD and Non OECD Countries
- ✓ Good Communications with:
 - *Customers/Suppliers*
 - *Government Agencies*
 - *Community Groups/NGOs*



Pilot Scheme Invitation Criteria

Having decided to move to a Pilot Scheme it was important to invite companies to participate in the program that would provide an exhaustive and open examination of the Green Lead protocols and the Audit procedures, so the selection criteria used were, that:

- The Company had to have a track record that demonstrated a clear commitment to Environmentally Sound Management throughout its operations. In most cases the companies were either members of Lead Industry Associations with a long tradition of sound management practices or they had been recently assessed for ESM through International Studies and Risk Management Projects.
- Business reporting had to be on an open and honest basis and sites had to be operating on an open door policy to Government Agencies, Intergovernmental Bodies and local NGOs.
- There was a cross section of organizations from the OECD and G77 Nations to ensure that Green Lead adequately reflected any differences in the business environments.
- Any company selected had good communications with its main suppliers and customers, the appropriate Government Agencies and through outreach programs, good relations with the local community groups and environmental NGOs.



Green Lead Pilot Scheme Participation

Two Companies that have been involved with environmental improvement projects over the last few years with the International Lead Management Center (ILMC) in conjunction with the United Nations Conference on Trade and Development (UNCTAD), the Secretariat of the Basel Convention (SBC), and their respective Environmental Ministries have agreed to participate in the Green Lead Pilot Scheme.

They are:

RAMCAR, in the Republic of the Philippines:

The RAMCAR Group is a fully integrated organization with ISO 14001 at the core of its environmental management systems. Philippine Recyclers (PRI) is the company's secondary lead smelter and is the largest in the Republic. PRI supplies all the refined lead for the Group's Oriental and Motolite Battery Manufacturing Company.

PRI and Motolite have a long working relationship with the Environmental Management Bureau (EMB) and they will also be a key player in the evaluation of Green Lead.

The Record Group in El Salvador

The Record Group has a comprehensive environmental management policy and is fully integrated with the Record Battery Manufacturing Plant on the same site as the company's battery recycler, Baterias de El Salvador.

The Company has been working closely with the Department of the Environment and Natural Resources during the course of the Basel used lead acid battery project and they will remain partners in the Green Lead Pilot Scheme.



Green Lead Pilot Scheme Participation

Amongst the OECD countries, the largest primary source of lead in the World, the BHP Billiton silver-lead-zinc mine at Cannington in North West Queensland, Australia has asked to participate in the Pilot scheme to represent the mining sector.



Green Lead Pilot Scheme Participation

As far as the major user groups are concerned the Battery Council International has agreed in principle to participate and this would involve working with one of its member companies in either a battery manufacturing plant or a vehicle assembly unit.

Discussions are also taking place that should lead to the inclusion of a Japanese Manufacturer in the Pilot Program.

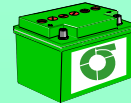
So the commitment from the Industry is being made, but just what will the Pilot Schemes be testing?

Note: The photograph of the car assembly plant is reproduced with the permission of the European Commission (Epa Photo/Ctk/Libor Zavoral)

Green Lead™ Pilots

Will test the Protocols For:

- ✓ **Applicability and Suitability**
- ✓ **Product Chain Communication**
- ✓ **Sustainability/Recycling**
- ✓ **EMS and Safety Procedures**
- ✓ **Public Awareness**
- ✓ **Green Lead Audit Processes**
- ✓ **Fault Feedback Systems**
- ✓ **Compatibility with ISO 14001 & OHSAS 18001**



Pilot Scheme – Testing the protocols

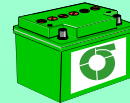
It should be made absolutely clear is that the Green Lead Pilot Scheme will be testing the applicability of the Draft Green Lead protocols and will NOT be testing the Occupational Health and Environmental Performance or any other element of Environmentally Sound Management of the participating companies or organizations. However, any obvious opportunities for performance improvement that may be observed by the experienced audit team will be conveyed to the facility management team. The Green Lead Pilot Scheme will be testing:

The applicability of the protocols to real operating and business conditions in terms in terms of covering all the many factors associated with environmentally sound operations managed in a safe place of work. This means examining the protocols to ensure they cover:

- ✓ Applicability and Suitability for each phase of the Product Cycle
- ✓ Product Chain Communication through the Product Cycle.
- ✓ Sustainability through sound recovery and recycling practices.
- ✓ Sound environmental management and safe working practices, including compliance with the ILO 1998 declaration .
- ✓ Public awareness of good battery management, safety and recycling.
- ✓ Thorough and comprehensive audit procedures for internal, external and independent assessment.
- ✓ Continuous improvement through an effective fault feedback system, such as the “Corrective Action Model” or a similar process.
- ✓ Compatibility with ISO 14001 and OHSAS 18001 to ensure that records and audits are not duplicated unnecessarily.

Green Lead™ Protocols

- *Medical surveillance – blood leads*
- *Solid waste management*
- *Effluent treatment and discharges*
- *Emission Control Systems*
- *ULAB collection, transport & shipping*
- *Battery Labels*
- *Public communications & awareness*
- *Site sustainability*
- *Community outreach*
- *Safety*



Green Lead Pilot Scheme - protocols – Currently Available

Until the completion of the Pilot Programs all Green Lead protocols will be in a draft format and subject to reviews, revisions and additions.

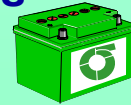
Currently in preparation for use in the Pilot Programs are the following draft protocols:

1. *Medical surveillance – Blood Leads*
2. *Solid Waste Management*
3. *Effluent treatment and discharges*
4. *Emission Control Systems*
5. *ULAB Collection, transport and shipping*
6. *Battery Labels*
7. *Public Communications and awareness*
8. *Site Sustainability*
9. *Community Outreach*
10. *Safety*

All of these protocols will be available in English and Spanish and can be downloaded from the Green Lead web site.

Green Lead™ Site Visits

- ✓ “Hands On” Approach to the Pilots
 - ❖ Testing on the Ground
 - ❖ Soliciting a wide range of inputs
- Site Visits to Reflect the Life Cycle
- Opportunities for:
 - ❖ Green Lead training
 - ❖ Improving communications
 - ❖ Honing Audit Procedures



Green Lead Pilot Scheme - Audits

So what will be the format to test the protocols and the Audit Procedures? It will be a “hands on” approach, through site and location visits to mines, smelters, battery manufacturers, recyclers, retailers, customers, NGOs and community groups.

The site visits will enable the protocols to be tested throughout the life cycle at the various operations and will also enable customers, community groups and NGOs to have an input into the elements of the protocols that affect them.

The visits will also provide an opportunity for on site training and familiarization with the Green Lead Process, particularly the procedures designed to facilitate continuous improvement and promote effective communications throughout the Product Chain.

And finally the Pilots will enable the whole Audit Process to be examined and honed prior to handing it over to a third party for use in the Certification Process.

Green Lead™ Pilots

Timetable for Site Visits:

2006
January:
El Salvador

2006
February onwards.....
Japan
Australia
Mexico



Pilot Scheme – Timetable

So when is all this due to start?

Well it has already started. The Business Case, at least six of the draft Green Lead protocols, and an outline of some of the Audit Procedures are already available for scrutiny in English and Spanish at the Green Lead Web Site.

However, the remaining protocols and Audit procedures will not be available until next year.

The plan is for the Site Assessment Visits to commence here in El Salvador, followed by Japan, Australia and Mexico in February.

The Progress of the Pilot Schemes will be posted regularly on the Green Lead web site in English and Spanish and comments from visitors to the web site will be most welcome.