

Workshops Report

The Second Green Lead Workshop

Wednesday 27 April and Thursday 28 April

at the

**Australian High Commission,
Strand, London, WC2B 4LA**

And

Green Lead Pilot Scheme Development Workshop

For

CFC Sponsored Delegates

Friday April 29th

At the

**International Lead Zinc Study Group Office,
1 Mill Street, London SE1 2DF**

Brian Wilson
July 2005

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www.ilmc.org

The International Lead Zinc Study Group



www.ilzsg.org

The International Lead Zinc Research Organization

www.ilzro.org



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The Steering Committee of the 'Green Lead' Project thank all the Companies that have contributed financially to make this Workshop possible and the Common Fund for Commodities (CFC), whose financial award enabled delegates from Countries with Developing economies from Central America and the Far East, as well as Environmental NGOs, to attend the Workshop.

The Steering Committee also appreciates the help and assistance given "*in kind*" by many organizations in support of this workshop and to ICMM for acting as Chair for all the sessions.

Green Lead Steering Committee

Craig Boreiko	ILZRO	cboreiko@ilzro.org
Gerhard Goliash	Berzelius Metall GmbH	ggoliasch@berzelius.de
Vincent Jugault	SBC	Vincent.JUGAULT@unep.ch
Michael Rae	WWF	mrae@wwf.org.au
Mick Roche	BHP Billiton	Michael.T.Roche@BHPBilliton.com
Don Smale	ILZSG	don_smale@ilzsg.org
Leonard Surges	Noranda Falconbridge	leonard.surges@toronto.norfalc.com
Phillip Toyne	Ecofutures	phillip.toyne@ecofutures.com
David Wilson	LDAI	wilson@ldaint.org

Green Lead Work Group

Ian Burrell	ILZSG	ian_burrell@ilzsg.org
Mick Roche	BHP Billiton	Michael.T.Roche@BHPBilliton.com
Phillip Toyne	Ecofutures	phillip.toyne@ecofutures.com
Emma Tristan	Tristan Consulting	emmatristan@btinternet.com
Brian Wilson	ILMC	bwilson@ilmc.org
David Wilson	LDAI	wilson@ldaint.org

Workshop Organizing Committee

Ian Burrell	ILZSG	ian_burrell@ilzsg.org
Maura McDermott	LDAI	McDermott@ldaint.org
Mick Roche	BHP Billiton	Michael.T.Roche@BHPBilliton.com
Phillip Toyne	Ecofutures	phillip.toyne@ecofutures.com
Brian Wilson	ILMC	bwilson@ilmc.org
David Wilson	LDAI	wilson@ldaint.org

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Introduction

The purpose of the Second Green Lead Workshop was to prepare the groundwork for the launch of the Green Lead Pilot Schemes planned for later this year. In order to achieve this goal there was a need to acquaint the delegates with the background documentation that had been prepared since the first Workshop in 2004 and set out the proposals for the conduct of the Pilot Schemes. Accordingly, the Workshop set out to:

1. Firstly, explain the proposed nature and scope of the Pilot Schemes.
2. The basis and concept behind the draft Green Lead Standards and the proposed assessment and audit procedures together with the preferred continuous improvement process.
3. During a series of Break-Out Sessions delegates were asked to define and agree roles for NGOs, Government Agencies and Intergovernmental Bodies so that they could effectively contribute to the Pilot Schemes.
4. Delegates were also tasked to set targets for environmental, safety, and health performance against the Green Lead Standards, and determine a means to measure social engagement and customer interaction.
5. In the context of testing the Green Lead Standards the delegates were required to devise a method of determining the success rate for each stage of the Pilot Schemes.
6. Maximize support for the Green Lead Project from the Industrial Sector by critically analysing the Business Case for Green Lead.
7. The final objective was to agree an outline Work Plan to adequately resource the Pilot Schemes and set out a prospective timeline to implement the schemes.

Conclusions

This was a very productive Workshop. The Green Lead Work Group did not go into the Workshop with fixed preconceived views on the precise direction and character of the Green Lead Pilot Schemes and welcomed the constructive recommendations made during the Break Out discussions and the feedback from individual delegates during the Plenary Sessions.

The Green Lead Work Group welcome the frank opinions expressed during the Workshop and are in the process of considering all the recommendations made during the Breakout Sessions and the views expressed during the plenary discussions.

Delegates made it clear to the Work Group that the Business Case for Green Lead Certification presented at the Workshop did not provide a convincing argument for the adoption of Green Lead by those companies based in the Europe or North America. The comments have been accepted and the business case is currently under review. One conclusion that is common to all the delegates and the Green Lead Work Group is that it is vital for the future of the Project that there is a clear business case for the adoption of Green Lead by the major battery manufactures.

In this respect, the cost of Green Lead certification is also a key issue and one that must be addressed during the Pilot Scheme.

There is now a clearer understanding of the key objectives and aims for the Pilot Schemes and the need to identify roles for NGOs and local community groups during any Pilot Phases.

The willingness of the Governments of the Philippines Republic and El Salvador to work closely with their respective lead recyclers and battery manufacturers is most encouraging and bodes well for the conduct of the Pilot Schemes.

The Protocols for the Green Lead Pilot Scheme need to be agreed by all parties prior to the implementation of the Pilots to ensure that every participant is working to the same agenda and knows exactly how they can contribute to the development of the Green Lead Project.

Recommendations

The complete list of Conclusions and Recommendations made during the Breakout Sessions can be found on [page 20](#) of this Report. The following recommendations presented during plenary sessions have already been considered by the Green Lead Work Group and the Actions taken are recorded in **Green** text:

1. The Business Case needs to be redrafted if Green Lead Certification is to be regarded as a necessity and of value to battery manufacturers in the European Union and North America, where levels of environmental compliance and social responsibility are already high.

Please refer to the revised Business Case in [Appendix 1](#).

2. Wherever possible, the Green Lead Standards should utilize prevailing and appropriate national legislation and existing international conventions, declarations and protocols when determining compliance criteria.

Unfortunately, only five of the draft Green Lead Standards could be reviewed by the delegates prior to the Workshop, but all concerned can be assured that the Green Lead Standards are either, or will be based on not only on appropriate national legislation and existing international conventions, declarations and protocols, but also “Best Practice”.

3. The number of Green Lead Standards to be utilized in the proposed Pilot Schemes should be limited to ten, as follows:

- i. Medical surveillance – Blood Leads
- ii. Solid Waste Management
- iii. Effluent treatment and discharges
- iv. Emission Control Systems
- v. ULAB Collection, transport and shipping
- vi. Battery Labels
- vii. Public Communications and awareness
- viii. Site Sustainability
- ix. Community Outreach
- x. Safety

Agreed.

4. For Green Lead to be of greatest value to those countries in transition with significant “informal sector” activity, the Green Lead regime must be capable of restricting access to used lead acid batteries by the “informals” and ensure that used batteries are only recovered through licensed recyclers.

Please see the notes for “How a Green Lead Cycle Can Help to Eliminate the “Informals”, in [Appendix 2](#).

5. Synergies between the Green Lead Project and the Product Stewardship programs of Intergovernmental Organizations such as the International Lead Zinc Study Group and the Secretariat to the Basel Convention should be identified to determine the feasibility of Co-Funding and Sharing Resources.

It has been agreed that the International Lead Zinc Study Group will prepare a proposal for submission to the CFC for the Green Lead Pilot Schemes in the Philippines and El Salvador as part of their ongoing program for sustainable development in some of the least developed countries of the world. The Green Lead Work Group will liaise closely with the ILZSG Secretariat in the preparation of the proposal.

Whilst the proposed Green Lead Pilot Schemes and the SBC ULAB Projects are two distinct undertakings and the Basel Secretariat does not envisage the two Projects merging, the Secretariat has agreed to work closely with the Green Lead Work Group to exploit synergies, share information and promote sound recovery practices for ULAB. The SBC is interested in the development of Green Lead Standards and will support the Project provided the Standards remain consistent with the Basel Technical Guidelines and the Regulations governing the transboundary movement of hazardous waste. The Green Lead Work Group welcomes the opportunity to work closely with the SBC in El Salvador.

6. The Green Lead Work Group should define precisely what the Pilot Schemes will encompass, what they will examine and test and how the audits will be conducted.

Members of the Green Lead Work Group did not arrive at the Workshop with a prescribed view about the conduct of a Pilot Scheme. Indeed, there was no real consensus as to the most appropriate approach to test the draft Green Lead Standards. Personal views were expressed openly for consideration and above all the Work Group Members listened carefully to the comments made during the various debates. The Work Group Members now believe that they have a clear vision of the way forward and are preparing a Protocol for the Pilot Schemes to be considered by the Steering Committee and those participating in the Pilots. The Protocol will also be posted on the Green Lead web site for comment.

7. The Green Lead Work Group should establish and maintain contact with the Government Environment and Health Agencies in those countries where it is intended to run Pilot Schemes. In this way it should be possible to devise and implement strategies within the Green Lead regime that will either restrict or eliminate the activities of the informal sector.

This recommendation was discussed and explored further on the third day of the Workshop with the delegates from Central America and the Philippines. The elimination of the activities of the informal sector is a goal shared by all parties and whilst it was agreed that following a Green Lead regime will severely restrict the ability of the informal sector to access ULAB (see [Appendix 2](#)), it was also agreed by the Governments of the Philippines and El Salvador, RAMCAR and the Record Group, that action could and should be coordinated right away by sharing intelligence and targeting the premises of the "Informals".

As far as establishing and maintaining a working relationship with the respective Government Agencies is concerned; Green Lead has always been promoted as a multi-stakeholder approach to Product Stewardship and the comments made at the workshop only reinforce that philosophy. In the Philippines, RAMCAR, through their subsidiaries, PRI and Motolite, already have a long history of working together during the UNCTAD/ILMC ULAB Project and both parties have indicated that the working relationships then, will continue into the Green Lead Pilot Scheme. Every effort will be made by the Green Lead Work Group to establish all the Pilot Schemes on a similar multi-stakeholder basis.

8. **Government Environmental and Health Ministry officers should be invited to accompany the Green Lead audit Team during Site visits.**

Companies aspiring to Green Lead Certification must have an “open door” policy at any of their premises. This means that multi-stakeholder partners, such as, Government Environmental Officers, would be welcome to attend a site audit or inspection. However, it must be stressed that the Pilot Scheme will be designed to test the draft Green Lead Standards and determine their applicability to the “real world” and NOT the company’s standards for occupational health, environmental compliance or policies towards social responsibility. This means that any invitation by a third party, such as an official from the Environment or Health Ministry can only be at the discretion of the Company, because this is still a voluntary program. Nevertheless, the Work Group recommends that all interested parties from within the stakeholders group are invited in order to make the audit as realistic as possible.

9. **There should be a high educational content in any Green Lead Program to ensure that consumers and collectors of used lead acid batteries understand the adverse consequences of not recycling the ULAB through the licensed formal sector.**

Both the Green Lead Workshops in 2004 and 2005 focused on the roles and responsibilities of Industry within the Lead Life Cycle, but of course lead acid battery consumers are an integral part of that cycle. Industrial consumers of lead acid batteries have, historically, returned 100% of their used batteries to the formal sector for recycling, but there are no such statistics for the general public although there is evidence that the “informal” sector is more likely to source ULAB from the general public than any other sources. With this in mind draft Green Lead Standard Number 9 is devoted entirely to “Public Communications and Awareness”. Unfortunately, this draft standard was only uploaded to the Green Lead Web Site for consideration by delegates two days before the workshop and so there was insufficient time for most of the participants to acquaint themselves with it. However, the draft standard places considerable emphasis on public education and outlines a number of practical and inexpensive ways that this can be achieved. Additional comments on this issue are welcome.

10. The draft Green Lead Standards should be thoroughly scrutinized prior to the start of the Pilot Scheme.

Agreed. Prior to the start of the Pilot Scheme in October 2005 all the draft Green Lead Standards will be posted on the Green Lead web site in English and Spanish for scrutiny, feedback and comment. Comments should be sent to –

Phillip Toyne by e-mail at: phillip.toyne@ecofutures.com

11. Consideration should be given to the introduction of two Green Lead Standards, one for OECD countries and a second for G77 Countries, because of the apparent discrepancy in environmental infrastructure.

This question will be considered by those involved in the Pilot Schemes. However, it should be noted that the apparent performance and infrastructure discrepancies for ULAB recovery between the OECD members and the G77 nations are really confined to the “informal” sector, where a lack of manpower “on the ground” is a major factor. In most other respects the Industry and the Government’s infrastructure is satisfactory. Indeed, the Philippine’s Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources (DENR) obtained ISO 14001 Certification from TUV Management Service of Germany in July 2004, making it not only the first national environmental regulatory agency in the country to attain ISO 14001 Certification, but the first in Asia, and that is ahead of OECD members, Japan and South Korea.

What is very important during the Green Lead Pilot Schemes is that the Standards should be able to identify any shortcomings in adequate infrastructure.

12. As Companies committed to the Pilot Schemes are doing so on a voluntary basis, those suppliers and customers up and down the product chain should also be invited to participate on a voluntary basis, without any coercion and in anonymity if they wish.

Agreed, and if they choose not to participate, it will be a disappointment, but the decision will be respected.

13. To be a truly multi-stakeholder program the Green Lead Project should involve appropriate participants from Academia, in addition to NGOs and community groups.

Agreed. Whilst it is unclear at this stage the mechanism for Academic participation, it is a good suggestion and one to take on board. There will be further discussion on this matter amongst the members of the work group and the participants in the Pilot Schemes.

14. Being open and honest in all aspects of the Green Lead Process will not be enough to establish credibility. It is essential that an effective response mechanism is established that can provide prompt feedback from not only the Pilot Scheme site visits, but also inquires and questions raised through the web site and other contact means. Furthermore, in response to valid comments and recommendations the Green Lead Process must demonstrate flexibility and not “soldier on” to the bitter end when something is in obvious need of adjustment.

All Pilot Scheme site visit programs include provision for a feedback session at the end of the visit and this will certainly take the form of an Open Forum during which issues can be raised from the participants and questions put to the Green Lead Assessment Team. At the moment questions and issues raised through the web site are sent to Phillip Toyne and are dealt with promptly. However, at present there is no provision on the Green Lead web site for any questions raised and the answers given to be published in a “virtual open forum”. As the Green Lead web site is currently undergoing a complete overhaul, arrangements will be made with the web designer to provide such space as necessary to have for questions and answers to be published and a means for an open debate.

On the question of Flexibility, the draft Green Lead Standards will be in a constant state of flux for the duration of the Pilot Schemes and they will be changed as necessary and as often as required to establish a robust set of standards. No attempt will be made to run for the duration of the Pilot Schemes without making changes to the Green Lead Standards.

15. Estimated Green Lead Certification Costs should be published because there is a concern amongst the Companies represented at the Workshop that the long term benefits to the Lead Acid Battery Industry outlined in the Business Case for Green Lead may be offset in the short term if the costs associated with Green Lead Certification are too high.

This is a very good point and an issue that has been raised many times during other conferences and workshops. The fact is that the Work Group has been unable to cost Green Lead Certification at this stage of development. Therefore, one of the key objectives that the Work Group feel should be set for the Pilot Scheme is to ascertain the cost, real and “in house”, of Green Lead Certification. Ideally, the cost should be low, or as low as possible, but to achieve this there has to be a high level of compliance with the Green Lead Standards and other measures of performance relevant to the Certification Process. Where the other measures include, ISO 14001 and/or OHSAS 18001 and so on, the audit cost should be minimal as the audit team will not be repeating the work already undertaken by other accredited auditors.

Another key objective of the Pilot Scheme will be to identify potential local third party groups to train as Green Lead Auditors, so that travel expenses and so on associated with Certification processes are minimal. At present the WWF are represented on the Steering Committee and will undoubtedly be able to assist in this process, but it should also be borne in mind that suitable local third party groups do not necessarily have to be linked to or part of the WWF organization.

16. It is essential for the integrity of the Green Lead Certification Scheme that Local Community Groups and NGOs are involved in the development of the Green Lead Process through the Pilot Schemes. However, careful consideration must be given to the selection of appropriate and representative community groups and NGOs, bearing in mind that different locations, cultures and standards of performance may dictate different selection criteria.

To date all the draft Green Lead Standards and the proposed audit procedures have been prepared and assessed by Work Group Representatives from the Lead Industry or those associated with it. So, it is essential for the Green Lead Standards to be accepted as a credible measure of Sound Management that the views of NGOs and Community Groups are heard and taken on board. The Work Group recognizes that the Lead Industry, community groups and NGOs often have different agendas and standards for what is acceptable. It is essential during the Pilot Schemes that issues about any elements of the Green Lead Standards that are viewed with a different perspective by either the Industry, community groups or the NGOs are noted, discussed and hopefully resolved.

Workshop Follow Up Activities and Action Points:

		<u>Date 2005</u>
<p>✓ As part of EPA's "Millennium Lecture Series," Mick Roche and Phillip Toyne were invited by the EPA's Industrial Ecology Workgroup to give a presentation on the Green Lead project in Washington on May 3, 2005.</p> <p>The need for the Green Lead to be credible was emphasized and hence the requirement for a multi-stakeholder approach at every stage of the Project with the measurement of compliance with the Green Lead Standards undertaken through third party audit.</p> <p>It was also explained that the proposed Pilot Schemes will not involve formal auditing or certification. The Pilots will test the validity of the draft standards throughout the lead acid battery lifecycle and will generate recommendations for a third workshop to finalize the Green Lead Certification Process.</p> <p>Several EPA participants offered their support for seeking funding from the U.S. government for the Green Lead Project. This support was welcomed as the Project needed more governmental involvement, including the ability to contribute to the project's development and validate the draft standards and audit processes under consideration.</p>	Phillip Toyne/ Mick Roche	May
<p>✓ Visit the World Bank in Washington to deliver a Paper on the Green Lead Concept and Project, and to discuss possible support for the pilot schemes. No decision was forthcoming.</p>	Phillip Toyne	May
<p>✓ Accept an invitation from the Ford Motor Company to visit their Head Office in Detroit to discuss possible Green Lead participation. Feedback from the Ford Motor Company is that they could see benefits in applying a "Green Lead" approach to their Piquet Project, but would probably consider a trial through the Pilot Scheme at their battery manufacturing plant in Vietnam. More discussions on this possibility will take place.</p>	Phillip Toyne	May

✓ Rewrite the Business Case for Green Lead	Phillip Toyne	May
○ Compile and distribute the Workshop Report	Brian Wilson	July
○ Review and if applicable, change the project title	Mick Roche	July
○ Review Workshop Report and Recommendations	Work Group	July/August
○ Amend draft Green Lead Standard for Site Sustainability to include conditions applicable for a change of ownership.	Brian Wilson	July
○ Confirm participating Stakeholders for the Pilot Schemes and timetable to test the draft Standards	Brian Wilson/ Phillip Toyne	September
○ Prepare draft Site Visit Assessment Forms	Brian Wilson	September
○ Review and complete the Draft Green Lead Standards	Brian Wilson	October
○ Prepare the draft Pilot Scheme Protocol	Brian Wilson	October
○ Prepare the draft Audit Protocols	Emma Tristán	October
○ Prepare the draft visit Protocols	Emma Tristán	October
○ Prepare draft Site Assessment forms	Brian Wilson	October
○ Prepare CFC Submission for funding	Ian Burrell	October
○ Secure Industry Funding for Pilot Scheme	Work Group	October

Workshop Programs

Wednesday 27 April

09:00 – 09:05	Workshop Opening	W. Twedell	Dep. High Commissioner
09:05 - 09:15	Welcome from the Chairperson Objectives of the Workshop	P. Mitchell	ICMM
09:15 - 09:45	Progress since the last Workshop	P. Toyne	Eco Futures GL Work Group
09:45 - 10:15	Outline of the GL Pilot Schemes	M. Roche	BHP Billiton GL Work Group
10:15 - 10:45	Morning tea		
10:45 - 11:30	Introduction to the RAMCAR Group	I. Guerrero	V.P. Philippine Recyclers Inc.
11:30 –12:00	Introduction to the RECORD Group	A. Dimas	Baterias de El Salvador
11:30 –12:00	Green Lead Standards	B. Wilson	ILMC , GL Work Group
12:00 - 12:30	Site Visits for the Pilot Programs	E. Tristán	Tristán Consult'g GL Work Group
12:30 - 1.30	Lunch		
13.30 – 14.30	Breakout Sessions:	<u>Facilitator</u>	
	i. The role of local communities and NGOs in the Pilot schemes	P. Gottesfeld	Ex. Director OK International
	ii. The role of Government Environment Agencies in the Pilot Schemes	D. N. Wilson	Director LDAI
	iii. The role of Intergovernmental Agencies in the Pilot Schemes	D. Smale	Sec. General ILZSG
14:30 – 15:00	Breakout Report back session		
15:00 – 15:15	Afternoon Tea		
15:15 – 16:15	Breakout Sessions	<u>Facilitator</u>	
	iv. Targets for the Pilot Schemes	P. Toyne	Eco Futures
	v. Measuring Success in the Pilots	V. Jugault	Basel Secretariat
	vi. Involving the Customers in the Pilots	E. Tristán	Tristán Consult'g
16:15 – 17:00	Breakout Groups report back		

Thursday 18 April

09:00 – 09:15	Chairman’s Summary and Overview	P. Mitchell	ICMM
09:15 – 09:45	Redefining the Pilot Schemes	M Roche	GL Work Group
09:45 – 10:15	Developing Environmental Certification for LAB Manufacturing: The Challenges and Opportunities	P. Gottesfeld	Ex. Director OK International
10.15 – 10:45	Morning tea		
10:45 - 11:15	Budget and Resource Allocation	I. Burrell	ILZSG
11.15 - 11.45	A Customer’s Perspective - Ford M C	B. Gottselig	Ford M C Cologne
11.45 – 12:15	Securing Environmental Compliance	L. Claudio	Philippine Gov
	Environmental Impact Statement System	M. Avenido	EMB EIAMD
12:15 - 13:30	Lunch		
13:30 – 14:45	Review of the Business Case for Green Lead	P. Toyne	GL Work Group
14:45 – 15:15	Afternoon Tea		
15:15 – 16:00	Program Budget		
16:00 – 16:30	Financing the Program	P. Toyne	Eco Futures
16:30 – 17:00	Chairman’s Summary and Close	P. Mitchell	ICMM

Friday April 29th - Office of the ILZSG, 1 Mill Street, London SE1 2DF

This Development Workshop was for participants of the Pilot Schemes from the Philippines and Central America.

Program

09.00 – 09:30	Workshop Recommendations	Brian Wilson
09.30 - 10:30	Incorporating the Recommendations into the GL Pilot Programs	Group Session Brian Wilson
10:30 – 11:00	Morning tea	
11:00 – 12:00	Establishing the Product Chain Links and Partnerships	Group Session
12:00 – 13:00	Lunch	
14:30 – 15:00	Setting out the Pilot Program Timelines	Ian Burrell
15:00 – 16:00	Open Forum	Phillip Toyne

These Sessions took the form of open discussions and served to review comments made during the first two days and cover issues not raised in previous sessions. Of particular interest to all parties was the potential of a Green Lead regime to eliminate the adverse activities of the informal sector. A [Powerpoint presentation](#) served as a useful aid to discuss the way that Green Lead regimes can restrict “informal” Sector access to ULAB. Also clarified during this session was the way that Governments can deal with any ULAB waste from “informal” sites that are shut down. Essentially, the priority is to have a secondary smelter that is classified as environmentally sound by whatever reputable measure and that might by Green Lead Certification, and process all the waste collected at the “informal” sector site through the designated smelter. In this way there is a real bonus for all parties because not only is the contaminated site cleared of leaded waste, but the lead processed through a Green Lead Certified Smelter is now part of the Green Lead cycle and will remain within that regime.

Both the Governments of the Philippines and El Salvador agreed to work closely with their Licensed Industry Sector to eliminate the “informal” sector as a matter of urgency and mutual interest irrespective of their participation in the Green Lead Project, albeit they recognized that the adoption of a Green Lead regime would be helpful.

The Government of the Philippines thought that there would probably be a need to prepare an inventory of formal and informal centers of activity in the Philippines to ensure that all parties understood the magnitude of the problems they faced. To this end a study proposal would be prepared as part of the Pilot Scheme and sent to the ILZSG for consideration.

The Record Group were concerned that if they subsequently applied for Green Lead Certification the company would “fall at the first hurdle” because they did not have access to an accredited lead in blood testing laboratory in El Salvador. The company used the Zinc Protoporphyrin test on urine samples as a means of measuring levels of occupational exposure, but they would very much like to fall in line with the rest of the Industry and use lead in blood analysis. The Company asked the Green Lead Work Group if they could engage the Health Ministry in the Pilot Scheme as a means of explaining to them the benefits of managing occupational exposure using lead in blood analysis. In this way it may be possible to persuade the Health Ministry to set up a lead in blood testing laboratory, which would not only serve the Industry, but would also be very helpful in ascertaining the effects of “informal” sector activities on the populations living close to their operations.

There was also disappointment from the Record Group that there was no representation from Guatemala and Nicaragua at the Workshop. The Company had extensive collection networks in both countries, but many of the ULAB that could be collected and processed in the environmentally sound smelter in El Salvador were “lost” to the “informal” sectors in both countries. The Company felt that if the Governments of Guatemala and Nicaragua were also involved in the Green Lead Pilot Scheme it would highlight the issue and may well prompt the Governments to take action against them.

On this issue the Green Lead pilot scheme will not be in a position to precipitate the action that the Record Group were looking for, because the scheme will be designed to test the Standards. Nevertheless, everyone can be assured that the Green Lead Work Group is aware of the need to involve the Governments of Guatemala and Nicaragua in the Pilot Schemes and they were invited to attend the Workshop in the same way as Costa Rica. However, communication with Nicaragua proved extremely difficult and despite good communications with the Environment Ministry in Guatemala a nomination to attend the Workshop was not forthcoming. In an effort to secure participation in the Pilot Scheme, contact with the Environment Ministry in Guatemala has been maintained and they will be asked to send representative to any sessions held in El Salvador at the start of the Pilot Schemes. The Green Lead Work Group will try to use the office of the Secretariat of the Base Convention to secure the participation of Nicaragua.

Discussions on the scope of the Pilot Scheme were extremely useful and all parties were of the opinion that with the addition of a draft Standard for Safety, ten Standards was an adequate number to provide a real test of the Green Lead concept. It was agreed therefore, that the number of draft Standards required for the Pilot Scheme would be limited to ten; that is, the nine presented at the Workshop plus Safety.

It was also agreed that site visits to Battery Retailers, Vehicle Repair Shops and ULAB Collection Centers during the Pilot Scheme would be on a “sample” basis and that the premises would be selected by the local multi-stakeholder group comprising mainly of the delegates at the Workshop plus the NGOs who could not attend.

With regard to the possibility of further CFC support for the Green Lead Project, the ILZSG undertook to prepare a proposal for funding the Pilot Schemes in El Salvador and the Philippines. However, the next round of meetings to consider such requests will not be held until October/November this year and it was therefore unlikely that any site visits or audits could be conducted before January or February next year.

Break Out Sessions – Conclusions and Recommendations

This full list of Conclusions and Recommendations is under active consideration by the Green Lead Work Group. Responses that have already been made by the Work Group to a number of the points listed below are recorded on [pages 8 to 13](#).

The role of local communities and NGOs in the Pilot Schemes: P. Gottesfeld OK Int.

Rapporteur – Michael Rae, [WWF - Australia](#)

- The Green Lead Pilot Scheme must be clear about how and what it is testing and auditing, otherwise NGOs will question why they should participate.
- The Green Lead Work Group and participating Companies in the Pilot Schemes should engage with the local NGO and Community Groups as early in the process as possible.
- Selection criteria for NGOs and Community Group Stakeholders are critical and must be open and objective. Furthermore, the selection criteria must be drawn up in consultation at local level to take into account the different issues dominating particular locations and communities.
- Substantial thought must be given to the Audit Protocols to be used and developed during the Pilot Schemes.
- Universities and other Academic Institutions could have a lot to offer the development of the Green Lead Project and should be invited to participate.
- Thought must be given to keeping the Green Lead Standards flexible during the Pilot Schemes so that they develop as weaknesses are exposed and gaps are identified. In this way they will become more robust as the project progresses.
- As the Audit Assessment team are unlikely to make many site visits during the pilot phase, a response mechanism must be established to cope with comments and feedback from participants in the Pilot Schemes as they go through the internal auditing processes.
- Thought must be given when the Pilot Scheme protocols are prepared to the complications that might ensue for those companies that import ULAB from many countries and face the prospect of a number of NGOs and community groups wanting to be stakeholders.
- The Green Lead Pilot Schemes should embrace high levels of public education and awareness publicity to ensure their maximum attention and participation in a positive manner.
- Proper implementation of the Green Lead Regime will lead to pressure on the “informal” sector, especially if the NGOs and community groups are aware of the harm their operations have on the environment and the health of its workers and local inhabitants. There is also a recognition here, that such moves against the “informal” sector must be carefully planned so that the public understand and appreciate that the licensed formal sector are recovering ULAB in a manner that will not cause harm to the community.

The role of Government Environment Agencies in the Pilots: D. N. Wilson, LDAI

Rapporteur: David Weinburg, [Battery Council International](#)

- The Green Lead Pilot Schemes should involve Government Environment Agencies at an early stage so that the Companies involved in the Pilot Phase can demonstrate the benefits of the voluntary Product Stewardship Project and get the Government “on board”. This is especially important where there is an “informal” sector and their illegal activities cause pollution and health problems.
- It should be made clear to the Government Agencies that whilst the promotion of the Green Lead regime will restrict “informal” sector access to ULAB, they still have a key enforcement role in the elimination of the “informals”. A better understanding of the economics of ESM and Recycling would be helpful here so that the Government agencies understand the economics of environmentally sound recycling and how difficult it is for licensed recyclers to compete against those in the “informal” sector who blatantly ignore environmental laws and occupational health legislation.
- Where possible the Green Lead Audit Team should build on the strong relationships developed between Governments in Central America and the lead recycling and battery manufacturing industry participating in the SBC ULAB project.
- Consideration must be given to what role Government Agencies will play in the Pilot Schemes in those countries where ULAB are only collected and exported for recycling.
- There is an apparent need to standardize operating practices in Central America and the Caribbean, particularly in the field of transboundary movements of ULAB. The Government has a duty to expedite the transboundary movement of ULAB to a licensed facility as quickly as possible and block any shipment to illegal smelters. The Green Lead Pilot Scheme might prove to be just the vehicle to do that because those smelters involved in the Green Lead Pilot Schemes can be identified as “Environmentally Sound” or at least moving rapidly towards ESM in line with the prevailing legislation and the draft Green Lead Standards.
- Companies should adopt an open door policy and invite Government Environment Agency personnel to attend and participate in the Site Assessment visits by the Audit Team so that they know how thorough the Green Lead Standards are in terms of environmental protection, workers welfare and social responsibility. However, it must be remembered that the Pilot Scheme is a voluntary process and companies will still have the option to decline to have Government personnel present during an audit.
- Government Agencies could have a key role in the Pilot Schemes promoting and implementing the public education content of the draft Green Lead Communications Standard. This would be especially useful to inform local populations about the adverse consequences of supplying the “informal” sector with ULAB.
- The Government could also play a positive role in the way information about illegal activities involving the “informal” sector is collected, collated, disseminated and used to funnel ULAB towards the licensed collection centers and smelters.

- The scope and roles of the industry and government agencies involved in the Pilot Schemes need to be defined.
- Education and training will ultimately be a major component of any Green Lead program, whether in the Pilot phase or full implementation and it should be borne in mind that there is a wealth of materials dealing with many of the issues contained in the draft Green Lead Standards available in the OECD that could be used. These materials may be of particular help in the elimination of “informal” sector activities.
- Government Environment Agencies should use every means possible in support of the Green Lead Project to eliminate the activities of the “informal” sector.

The role of Intergovernmental Agencies in the Pilot Schemes: D Smale; ILZSG

Rapporteur: Dr Robert Dwyer, [International Copper Association](#)

- Whilst IGOs have their own agendas, the Green Lead Project covers a number of areas of common interest to many IGOs, such as the ILZSG and the SBC. Synergies should be identified and where possible activities and resources shared to the mutual benefit of all parties. This seems eminently possible with the promotion of the commodities under the jurisdiction of the ILZSG and the SBC’s ULAB projects in Central America, the Caribbean and South America.
- Adoption of even the draft Green Lead Standards would enhance industry’s international credibility because there would have to be compliance with the Basel Technical Guidelines for ULAB and the Transboundary movement regulations for hazardous waste and that includes ULAB.
- One of the key roles that IGOs can play as a partner in the Green Lead Project is to provide access to Government Agencies that might not always be accessible to the Lead Industry. This would be a real benefit to the Pilot Schemes as Government participation and support is vital and a “bridge building” capacity would be a real advantage to the Green Lead Project.
- The Green Lead Work Group needs a mechanism to identify ISOs with similar projects and they should explore opportunities for co-funding where the objectives of the Green Lead Project overlap with the goals and aims of IGOs. Opportunities may be possible with:
 - The SBC and the implementation of recovery processes
 - ILZSG, UNEP (e.g., UNEP-SETAC LCA initiative)
 - NAFTA (regional program on Pb)
- The full participation of IGOs in the Pilot Schemes will add to their credibility because the IGOs will have to set out objectives for their involvement in the Project and will have to account for progress or otherwise to their respective governing bodies.

Setting Targets for the Pilot Schemes: P. Toyne, [Eco Futures](#)

Rapporteur: Gunilla Fjelde, [Returbatt AB](#)

- The Pilot Scheme should establish a Global Network of Green Lead participants to share best practices, good ideas and facilitate problems solving.
- The benefits of Green Lead, whether in kind, additional sales, greater market opportunities or lower environmental costs, indeed whatever they might be, should be identified as part of the Pilot Scheme so that the advantages of full Certification are clear to all Stakeholders.
- As part of the Pilot Scheme there has to be a means of explaining to all Stakeholders how the successful implementation of a Green Lead regime will restrict ULAB access to the informal sector and eventually eliminate it.
- In addition to the Protocols for Site Visits and Audits, the Pilot Schemes must also follow an agreed set of Protocols for testing the draft Green Lead Standards so that all the Stakeholders know and understand precisely what is being tested, and most importantly how those participating in the Pilot Schemes can contribute to the development of the Standards and the Green Lead Project.

Measuring Success in the Pilot Schemes: Vincent Jugault, [SBC](#)

Rapporteur: Dr Robert Dwyer, [International Copper Association](#)

- The Pilot Schemes need to identify any impediments to change and/or success; that is, technical, financial, social, cultural, regulatory, or even aspects of the draft Green Lead Standards. Removing barriers to success, or at least devising a strategy to remove them will be judged as a measure of success.
- The Audit Protocols need to be established in a way that they are realistic and adequate without being over complicated, and at the same time be applicable to every location including sites in the “informal” sector.
- The Pilot Schemes will run in several locations and it is important that the Work Group establish what can be achieved in terms of Product Chain Management. That is, can all the elements contained in the draft Green Lead Standards be measured in a positive and constructive way without being a costly and time consuming exercise?
- The Pilot Schemes need to demonstrate the value of Green Lead certification to Industry, the general public, NGOs, government agencies and Intergovernmental bodies.
- The Pilot Schemes need to operate throughout the whole Product Chain to be completely successful and to fully test the draft Standards.
- Any of the draft Green Lead standards must be capable of discriminating between different levels of performance throughout the cycle, whatever is being measured and wherever that might be in terms of the life cycle.
- The Work Group’s success will be measured against their ability to test all the draft Standards consistently throughout the Product Cycle and adjust the

draft Standards throughout the Pilot Scheme as required and as directed by the sequential iterative field trials and site visits.

- The success or otherwise of the draft Green Lead Standards will be determined by “how robust they are by the end of the Pilot Scheme” and whether they really can be applied throughout the Product Chain.

Involving the Customers in the Pilot Schemes: Emma Tristán – Tristán Consulting

Rapporteur: Steve Payne, [Australian Gov., Dept. of Industry Tourism and Resources](#)

- In the context of the Sigma Loop there are “customers” at every stage of the life cycle, but what we are looking at is the Customer for the finished Lead Acid Battery and that will be predominantly the motorist, but there will also be a huge percentage of sales to industry and Governments for emergency power supplies. In view of this wide spread customer base the Green Lead Work Group should consider including consumer groups or Chambers of Commerce as Stakeholders.
- One issue that should be considered as part of the Pilot Scheme is to determine whether “consumers” would be prepared to pay a premium for a Green Lead Battery. This is a key issue for the battery manufacturer and if it is found that customers are prepared to pay an extra sum, albeit a small amount, for a Green Lead product, then the Business Case will be strengthened.
- Engagement with customers should or could go through 3 stages:
 - developing a level of awareness of what your customers do, plus at this stage demonstrating the business case for Green Lead to them.
 - working with them to develop better working practices at their site, if that is appropriate
 - move completely to Green Lead standards.
- The draft Green Lead standards need a very detailed expert scrutiny and comment before any of the pilot schemes commence.
- The Work Group should consider whether the standards applicable in developed countries should be the same as those in developing countries.
- It is suggested that the Pilot Schemes incorporate a simple survey of customers to assess their understanding and expectations of the Green Lead concept – and the survey could be extended to the customers’ customers and so on so that by the end of the Pilot Scheme that whole of the Sigma Loop will be covered.
- Finally, the Group considered there were lessons that could be learned from other countries which have taken a responsible care approach to their industries and their suppliers and customers. We shouldn’t reinvent the wheel is the idea here.

The Business Case for Green Lead™ – Responsible sourcing and use of lead in batteries

“Through the application of product stewardship principles and practices throughout all our operations over the last ten years, the company generated an extra \$6billion in revenue, either through reductions in costs through innovative process designs and resource management, or increase in profits through innovative product design and market responsiveness”.

Leo Hyde, Research and Development Manager, Dupont Australia. March 2004.

Summary

- Green Lead is about minimising the risk of harm to people and the environment as a result of exposure to lead in the life cycle of lead acid batteries
- Green lead is about securing community trust and therefore future markets for lead acid batteries
- Lead is toxic and has historically been associated with adverse effects on people and the environment and as a result, there is a growing pressure to constrict and eliminate the use of lead in many applications and regulators are responding with increasingly stringent controls.
- Green Lead involves the cooperative establishment of standards and principles, which if met, will result in sound environmental and health and safety practices that ensure maximum protection to people and the environment. In addition, Green Lead involves third party certification that companies in the lead cycle have achieved the standards.

Introduction

Green Lead™ is aimed at developing a standard and audit system for the third party certification of facilities in the lead acid battery lifecycle in order to provide maximum levels of assurance that the production, use and recycling of lead in batteries can be achieved under conditions that ensure the highest levels of safety to people and the environment.

The business case for this product stewardship approach for lead centres around:

- Enhanced reputation with both regulators and local populations through the development of a credible Green Lead certification system, leading to more certainty regarding the ‘license to operate’
- Improved risk management through better understanding of the impacts of lead through all stages of its life cycle in batteries
- Improved health and safety outcomes for employees and local communities
- Potential for cost savings as a result of deploying cleaner technology

- Direct input to ensure the design of a certification scheme for the lead battery cycle that is practical and shared between all participants as an alternative to “command and control” regulation.
- A mechanism to minimize the ‘leakage’ of lead from legitimate battery sector to the ‘informal’ battery sector.
- A potential mechanism to allow the flexible transboundary movement of lead between processors under the Basel Convention as an alternative to the current ban mechanism.
- The ability to market and promote the best practice performance of Green Lead producers, not possible with ISO certification and compliance with regulation. Green Lead can be a powerful mechanism for securing future markets through achieving better environmental and social performance for the lead mining, smelting, battery manufacturing and recycling industries. As the Global Environmental Management Initiative has reported recently - (www.gemi.org/supplychain/resources/ForgingNewLinks.pdf);

“Supply chain management is evolving from a traditional focus on purchasing and logistics to a broader emphasis on value creation. Leading companies increasingly view supply chain excellence as a source of competitive advantage, with the potential to drive performance improvement in customer retention, revenue generation, cost reduction, and asset utilization”.

- Green Lead provides a long term and sustainable future for lead – in the face of otherwise tighter restrictions on its use by governments.
- Green Lead will be the backbone of a global reputation for sound environmental stewardship at every stage of the lifecycle. Indeed, no other product stream will be so well managed from cradle to grave and this scheme will become the yardstick for – regulators, communities, UNEP, OECD, customers and suppliers etc.
- Green Lead will be a statement of commitment to HSE responsibility and contribute to Sustainable Development.
- The Scheme ensures recognition of the benefits of product stewardship and engagement in all stages of the lead life cycle. This means that participating companies will embrace diversity, work in an open and transparent manner by sharing information, trusting interested parties, by adopting teamwork and investing in the future of the industry and local communities.
- Green Lead is a valuable model for Product Stewardship, Life Cycle Analysis and for Health, Safety and the Environment.

Green Lead and Global Regulatory Programs

EU and REACH

Legislation banning various lead products in various countries (particularly within Europe) continues to expand or is under consideration. Denmark has a ban on lead compounds, except for x-ray shielding and lead acid batteries.

The European Union's new Chemicals Policy (REACH) has imposed unprecedented levels of control over all substances (including lead) deemed hazardous. It's the EU's move towards Extended Producer Responsibility (EPR), under the Green Paper on Integrated Product Policy, will have profound effects on the lead producers and battery manufacturers. EPR means that manufacturers of lead based goods will be required to exercise control over the products during and at the end of their life cycle, ensuring that the environment and the population are protected from any adverse effects arising from either, use, recovery or disposal.

Japan and 3R

The 3R Initiative is the concept Japan Prime Minister Koizumi proposed with USA President Bush at the G8 Summit held at Sea Island, Georgia last year. The Prime Minister pointed out that the "3R" (Reduce, Reuse and Recycle) approach is key to achieving integration of the environment and the economy through the effective use of resources and that the importance of this approach will grow in the years to come. The 3R Initiative aims to promote the 3Rs globally so as to build a sound material-cycle society.

In this approach to Reduce, Reuse and Recycle, a Japanese traditional phrase "Mottainai" is very apt. "Mottainai" literally means, "What a waste (We should be grateful for what we have)." This concept bears much relevance to the 3Rs in its message of using resources effectively while creating business opportunities.

Green Lead is widely recognised as being the foundation for an initiative that will contribute to a sound material-cycle society. Initial discussions with the Toyota Motor Company have resulted in very positive reactions to Green Lead.

Australia and Co-regulatory Frameworks

Substantial support for voluntary, industry initiated, third party verified product stewardship schemes, has been received with the call by the Australian Ministers for the Environment (The Environment Protection and Heritage Council) releasing a discussion paper in late 2004, calling for industries to develop and submit such schemes for approval. They further propose that the State and Commonwealth Government's would regulate to compel the compliance with the established standards by companies refusing to voluntarily participate. The Australian Government believes this is an approach likely to find increasing favor with other governments as a better option than the Extended Producer Responsibility approached proposed by the EU.

Basel Convention and Trade Barriers

The Secretariat of the Basel Convention is now actively considering the possibility of approved mechanisms such as Green Lead, providing a flexible alternative to a simple ban on the trans-boundary shipment of hazardous waste between countries. This has the potential to provide a significant outcome to non-OECD countries that are unable to import Used Lead Acid Batteries (ULAB) as the ULAB is regarded as hazardous and contaminated waste that is precluded for transshipment under Basel. This was of particular interest to the Venezuela, Costa Rica, El Salvador and Mexican delegates present at the 2005 Green Lead workshop.

The Secretariat of the Basel Convention has a representative on the Steering Committee of the Green Lead Project.

Green Lead and Non-Government Organisations (NGOs)

Environment NGO's have been long standing critics of the adverse impacts of lead production and use. They have well developed campaigns and enjoy high levels of support with the public and regulators.

In promoting the 'polluter pays principle' and 'extended producer liability', they have suggested that it is the battery manufacturer who must assume the responsibility for the battery from 'cradle to grave'. This is a far more onerous regime than the shared responsibility proposed under the Green Lead concept.

OK International, a San Francisco based NGO, with a particular focus on environment, occupational health and safety in developing economies, is in the process of scoping a certification system in India for lead battery manufacturers, aimed at eliminating adverse health effects on workers. The opportunity now exists to merge this initiative with the Green Lead one. This could lead to strong cooperation between industry and the environment NGO community.

The World Wide Fund for Nature (WWF) is already a member of the Green Lead Working Group.

Green Lead and Industry

As the manufacture of lead acid batteries represents the major market for lead products, there is a case for the various players in the Lead Acid Battery life cycle (or supply chain), that is, miners, primary smelters, battery manufacturers and secondary recyclers, to establish a voluntary, third party certification scheme to demonstrate that lead is being managed in an environmentally sound manner. If such a scheme was comprehensive, adopted the best operating practices to ensure that environmental and occupational exposure levels remain below the legal limits of the OECD members, and was independently audited, then it could be used to validate an operating license, whether it is government issued or, based on community consensus or both, or an import application for ULAB through the Basel Convention.

The first step towards the voluntary Green Lead scheme involves the identification of the adverse impacts associated with lead, the establishment of standards and procedures to minimise these impacts, certification of the participating organisations and eventually the lead products meeting these standards. It will focus initially on the lead used in batteries.

There are significant benefits in the lead acid battery sector, and those with a close interest in product safety, in developing a credible certification system for Green Lead, both in terms of its practical application, its flexibility, low cost, and its potential integration with other assurance schemes together with its focus on whole of life cycle relationships between companies in the cycle.

The capacity of the lead industry to enhance its contribution to sustainable development is clearly dependent in part on its capacity to understand and apply materials stewardship principles and practices. To achieve this outcome companies must integrate materials stewardship principles and practices into all aspects of their business, from planning through closure and through meaningful partnerships with customers and suppliers during operations.

The benefit of such an approach is illustrated in the case put by Philippine Recyclers Inc for adopting sound environmental procedures and processes of the company's secondary lead plant in Manila. Since the beginning of the Company's environmental improvement program with UNCTAD and the ILMC in 1997, PRI have been ISO 14001 Certified and benefited from the following:

- A drop of 19% in the production of furnace residues, due to efficient reagent use and improved furnace operations.
- The cost of fuel for the furnaces has been reduced by 17%.
- Electrical power consumption has been reduced by 21% because the baghouses do not have to capture so much fume or dust emissions.
- The costs associated with environmental management such as water treatment, residue management and housekeeping are down by 20%.

Rio Tinto has gone so far as to say that economic value alone is no longer paramount in its thinking and that all resource companies need to identify with the sustainable growth agenda. If they fail to, they are putting at risk the 'community license to operate'. They forcefully argue that there is a strong business case for a sustainable development approach to business, both with respect to regaining public trust and in developing new mechanisms for collaboration and co-operation. The company believes that safety, community relations and environmental protection are all core competencies for effective companies into the future.

Ford Motor Company is now actively looking to enhance its reputation with consumers by demonstrating its commitment to sustainable development, by examining ways to build cars with genuinely sustainable components and to align themselves with suppliers who can meet their demand for these characteristics.

A cost-benefit analysis for Green Lead

The underpinning approach to developing Green Lead has been to keep the costs of certification as low as possible by building on existing audit processes and costs involved in ISO or other EMS certification and 'adding on' the specific Green Lead performance indicators, which could be tested at the same time. The costs involved in Green Lead are contribution to the Green Lead Development Phase; the cost of certification under ISO 14001 (or an equivalent environment management standard); the cost of Green Lead certification audit (expected to be done in association with the ISO audit or other audit); a license fee (possibly based on a percentage of a company's Green Lead product sales) paid to the Green Lead entity to cover its operational costs and a contribution to a marketing fund.

It is not certain that those companies involved in the Green Lead cycle will be rewarded with increased prices for their products, but they are likely to be in a more resilient relationship with their suppliers, their customers and with regulators. The pressure for Green Lead Batteries, may come from motor vehicle users or from motor vehicle manufacturers, keen to reduce the environmental impact of their product. Most likely it will come from both.

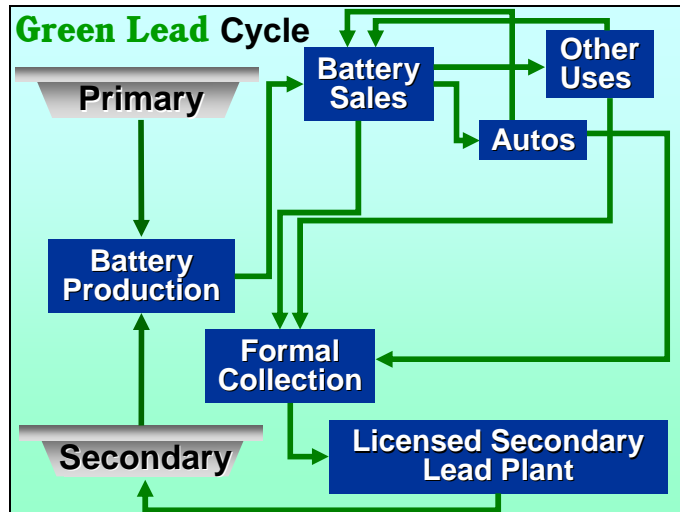
Green Lead Workgroup
June 2005

The Lead Acid Battery Life Cycle

How A Green Lead Cycle Can Help to Eliminate the “Informals”

Brian Wilson

Green Lead Work Group



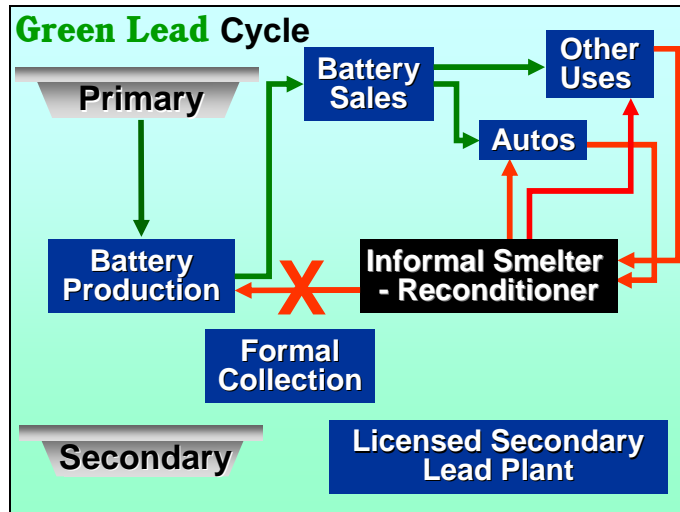
Green Lead Cycle

An examination of the Green Lead battery cycle will help to explain how the Green Lead code of conduct works in practice and eventually eliminates the threats posed by the “informal” sector.

Firstly, primary lead is despatched to the battery manufacturer and subsequently Lead Acid Batteries are delivered to the retailer. As we know, the bulk of battery sales are to the automobile sector, but some will be sold for other uses.

Used batteries are usually returned to the retailer for either a refund or a purchase discount and in turn the retailer will send the ULAB to a collection center for sorting and packaging. Some consumers will also send their ULAB directly to a collection center.

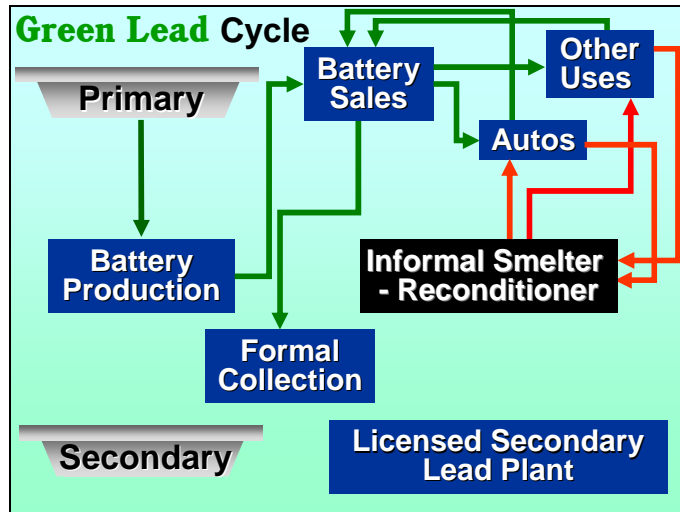
The collection center ships ULAB in bulk to a secondary smelter for recycling and the refined ingots will be sold to the battery manufacturer for the cycle to begin again.



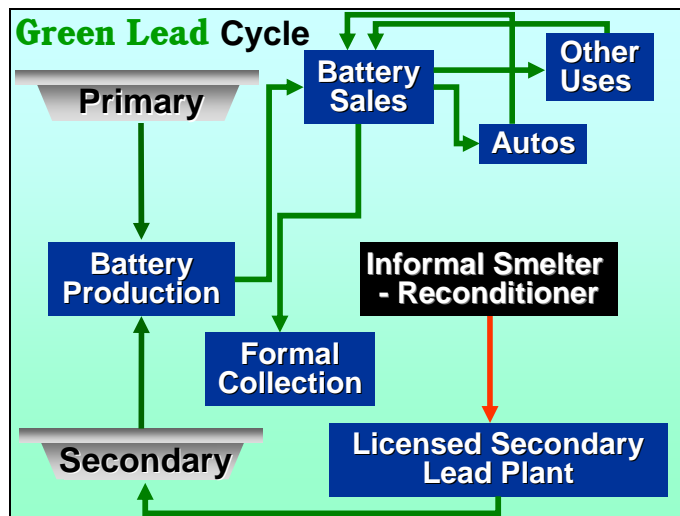
In those instances where there are unregulated smelters or “informal” battery reconditioners operating, there is the distinct possibility that by offering a premium for a ULAB above that offered under a deposit/refund scheme, that ULAB will find there way into the “informal” sector.

In the informal sector, where possible the ULAB will be reconditioned and returned to customers looking for a cheap battery. Used battery plates and those ULAB deemed beyond repair will be recycled without much recourse to environmental and health controls. In many cases the lead bullion produced is often marketed to battery manufacturers for use as terminal posts.

It is envisaged that under a Green Lead license, battery manufacturers will only be able to purchase lead ingots from a primary or secondary Green Lead supplier and an outlet for the informal sector will be eliminated.



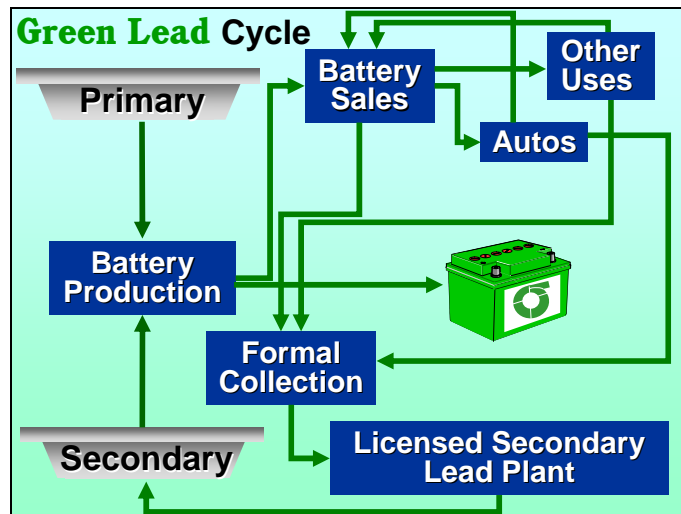
Furthermore, under a Green Lead regime, battery retailers should be administering a stringent government supported deposit/refund scheme which will ensure that the opportunities for the informal sector to obtain ULAB are drastically reduced, and eventually terminated.



One exception to the principle of not accepting ULAB or reconditioned components from the informal sector will be a Green Lead licensed secondary smelter.

Any leaded waste materials offloaded by the informal sector will be accepted as feedstock at a GL secondary plant. The material will be recycled in an ESM and designated as a GL approved product. In this way, ULAB and leaded waste in the informal sector can be recovered in the most environmentally desirable way.

It is anticipated that in this way those working in the informal sector will either get out of the ULAB business or become legitimate collectors of ULAB.



So a Green Lead regime has tremendous potential as model to assist in the elimination of poor recovery practices.

The Green Lead Regime, once in place, will facilitate the development of environmentally sound practices, safe working conditions and excellent recycling rates through the formal sector.

Introductory Words for the Green Lead Workshop:

Australian High Commission: 27-28 April

**Mr. Bill Twedell,
Deputy High Commissioner**

It is proposed that you will be introduced by the workshop chairman, Mr. Paul Mitchell, Secretary General of the London based International Council on Mining and Metals (Paul is an Australian and was previously CEO, Care, Australia).

I am very pleased to welcome you all here today to the Australian High Commission for this important second Green Lead Workshop.

The Australian Government is very happy to support the Green Lead initiative through the provision of this venue, not only because Australia is one of the world's largest lead producers but also because Australia is committed to Economically and Environmentally sustainable development. This Product Stewardship initiative for lead is consistent with our sustainable development objectives.

I understand that, while Green Lead was launched by BHP Billiton, Australia, it is now very much an initiative of the whole lead and lead-using industry, including miners, smelters and consumers. It is impressive to see the wide range of stakeholders from a number of different countries and organisations here today.

I am sure you are all eager to get on with it so let me just say that I wish you a very productive and successful workshop over the next two days.

Delegate List

Name	Surname	Company	Country
Kati	Aaltonen	Rio Tinto plc	UK
Marilou P	Avenido	Environmental Management Bureau Region III	Philippines
Martin	Baitz	PE Europe GmbH	Germany
Craig	Boreiko	ILZRO	USA
Ian	Burrell	ILZSG	UK
Eduardo	Call	Baterias de El Salvador SA De CV	El Salvador
Don Albert G	Cuesta	Oriental and Motolite Marketing Corporation	Philippines
Rowena R	Dimanlig	ABS-CBN Foundation Inc	Philippines
Arturo	Dimas	Baterias de El Salvador	El Salvador
Robert	Dwyer	International Copper Association Ltd	USA
Gunilla	Fjelde	Returbatt AB	Sweden
Paul	Frost	Britannia Refined Metals Ltd	UK
Carlos Frias	Gomez	Technical Reunidas SA	Spain
Perry	Gottesfeld	OK International	USA
Bernd	Gottselig	Ford Motor Company	Germany
Irving	Guerrero	Philippine Recyclers Inc	Philippines
Mehdi	Haji	Iran Zinc Mines Development Co	Iran
Torsten	Halbich	Anglo Base Metals	South Africa
Mario	Huerta Huitzil	Penoles Industries	Mexico
Abraham	Jamili	Iran Zinc Mines Development Co	Iran
Vincent	Jugault	Basel Secretariat	Switzerland
Claudio E	Lormelyn	Environmental Management Bureau Region III	Philippines
Josephine	Mason	Metal Bulletin	UK
Emperatriz	Mayorga	Ministry of Environment and Natural Resources	El Salvador
Paul	Mitchell	ICMM	UK
Ester Cristina	Monroy Gonzalez	Ministerio del Ambiente y los Recursos Naturales de Venezuela	Venezuela
Horst	Ockenfels	Federal Ministry of Economics	Germany
Federico	Paredes	Ministry of Health, Human Environment Protection Bureau	Costa Rica
Stephen	Payne	Department of Industry, Tourism and Resources	Australia
Tony	Piper	Britannia Refined Metals Ltd	UK
Michael	Rae	WWF - Australia	Australia
Huw	Roberts	CHR Metals Ltd	UK
Mick	Roche	BHP Billiton	Australia
Don	Smale	ILZSG	UK
Leonard	Surges	Noranda Inc/Falconbridge Ltd	Canada
Phillip	Toyne	Ecofutures Pty Ltd	Australia
Ken	Traynor	Canadian Environmental Law Association	Canada
Emma	Tristan	Tristan Consulting	UK
Giancarlo	Urbani	AIRPB	Italy
David	Weinberg	Battery Council International	USA
Brian	Wilson	ILMC	USA
David	Wilson	LDA International	UK

The Second Green Lead Workshop

Wednesday 27 April and Thursday 28 April

Closing Remarks by the Chair

Closing the Workshop, Paul Mitchell informed the delegates that he, on behalf of ICMM, had been very pleased to chair such an interesting and consultative Workshop. He thanked the Australian High Commission for hosting the workshop and their hospitality over the two days.

Paul informed the Delegates that the Green Lead Work Group was very pleased with the levels of participation and the number of very constructive and helpful suggestions made in respect of the Development of the Green Lead Project and the introduction of the Pilot Scheme.

It was clear from the feedback that there were a number of issues that needed urgent attention, especially the Business Case and the precise Terms of Reference for the Pilot Scheme.

The Work Group would now set out a program to take on board the recommendations made by the delegates and implement the Pilot Scheme across those companies that had agreed to “field test” the Green Lead Standards.

Paul informed the Delegates that the Green Lead Project was groundbreaking in many respects and there was considerable interest from other commodity groups in the outcomes of the Workshop and the forthcoming Pilot Scheme.

Meanwhile, a Report of the Workshop, containing all the presentation materials, a record of the contributions from the Break-Out Sessions, including responses from the Work Group, and a Work Program will be compiled and sent to delegates by e-mail.

Paul thanked all those who had contributed to the success of the Workshop and wished the Project every success.