

**Completing the  
Benchmarking Assessment  
Form for the  
Environmentally Sound  
Management of Used Lead  
Acid Battery Recycling**

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# Benchmarking Form

- ✓ *Comprehensive and easy to use*
- ✓ *In the form of a questionnaire*
- ✓ *Identifies Good Practice or not!*

# Benchmarking Form

## Completing the Benchmarking Form

*Complete the first section of the Form:*

✓ *Provides information about the:*

- *Location*
- *Business*
- *Contact details*

# Benchmarking Form

## 1.0 General Information

<b>Company Name</b>	
<b>Location</b>	
<b>Business</b>	
<b>Date</b>	
<b>Company Address</b>	
<b>Company Representative</b>	
<b>Job Title</b>	
<b>Phone number</b>	
<b>E-mail address</b>	
<b>Internet – Company Web Site Address</b>	
<b>Operational area (Hectares) (approx)</b>	
<b>Benchmarking Assessor</b>	
<b>Phone number</b>	
<b>E-mail address</b>	
<b>Number of employees</b>	
<b>Age and service profiles</b>	

# Benchmarking Form

## Completing the Benchmarking Form

*As you complete the Assessment Form:*

- ✓ *Identify the Key Benchmarks*
- ✓ *Determine Compliance with Benchmarks*
- ✓ *Repeat for each section of the Form*

# Benchmarking Form

No.	ULAB Collection and Supply Points	A	B	C	D
1	What Used Lead Acid Batteries (ULAB) are being collected?	Car	Motorcycle	UPS/Security	Industrial
2	How are ULAB collected?	Citizens	Retailers	Garages	Scrap Dealer
3	How are the ULAB delivered? Drained of Acid or complete with Acid?	Drained	Most drained	A few drained	Complete
4	How are the ULAB sorted?	Size	Plastic case	Automotive	Industrial
5	Are ULAB that leak separated and packed in plastic containers?	No	Sometimes	Drained first	Always
6	What happens to the ULAB collected?	Tested and recharged	Reconditioned	Sold	Packaged & shipped
7	How are ULAB stored while waiting for dispatch to the recycler?	In the open	Packaged in the open	Under cover	Packaged & under cover
8	How are ULAB collected transported to the recycling plant?	Bicycle/cart	Open truck	Closed truck/van	Licensed truck/van
9	How are the ULAB packed onto or into the vehicle for transport to the recycling plant?	Loose	Loose and upright	Palletized & wrapped	As C with any leaking ULAB in a leak proof container.

# Benchmarking Tool

No.	Collection and Supply Points	A	B	C	D
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3

**How are the ULAB delivered? Drained of Acid or complete with Acid?**

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<b>Drained</b>	<b>Some drained</b>	<b>A few drained</b>	<b>Complete</b>
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6	What happens to the ULAB collected?	<b>Tested and recharged</b>	Reconditioned	Sold	<b>Packaged &amp; shipped</b>
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# Benchmarking Tool

No.	Environmental Status	A	B	C	D
1	What agencies issue your environmental and operating licenses?	Health	Environment	Business	Other
2	How close is the general population to the Recycling Plant?	Next to the Plant	1 kilometre	5 Kilometres	Industrial Zone
3	Is process effluent discharged from the site?	Always and untreated	Sometimes untreated	After treatment	Never
4	What happens to the battery acid drained from the ULAB?	Untreated and discharged	Treated and discharged	Collected, treated and used in the process	Collected to produce Gypsum
5	How are furnace emissions from the plant controlled?	No control	Furnace is ventilated to a baghouse	All processes are ventilated to a Baghouse	As C with all fume recycled
6	If your plant is using a Blast Furnace – Do you have a Scrubber Unit?	No	Yes		
7	If your plant is using a Rotary Furnace – Do you add iron to the charge Material?	No	Yes		
8	What do you do with your furnace residues?	Dispose of in a local tip	Treat and dispose of in a local tip	Treated and sold for hard core	Treated and used to make bricks/tiles
9	Is the site clean, tidy and free of dust, slag and acid residues?	No	Dust and Slag only	Acid residues only	Yes

3 of 5

Environmental Status

# Benchmarking Tool

No.	Occupational Lead Exposure	A	B	C	D
1	Is there a hygiene and respirator policy?	No	Respirator only	Hygiene only	Yes
2	Are respirators worn by all personnel in the operating areas	No	Some do	Only operating personnel	All personnel
3	Is there a Medical Officer and/or Occupational Nurse appointed to check the health of the workers?	No	On request	Nurse only	Yes
4	Are the occupational Lead in Blood levels checked?	Never	Annually	Twice annually	Every quarter
5	Do you communicate health risks to employees?	Never	If asked	Induction	Regularly
6	Are operating personnel issued with works clothing?	No	Overalls	Overalls, hat	Overalls, hat, boots & gloves
7	If so, how often are the clothes washed and changed?	Never	Every month	Every week	Every shift
8	Are eating and process areas segregated?	No	Eating on site is not permitted	Yes, but not ventilated	Yes with HEPA Air conditioning
9	Are there showers on site for use by the operators?	No, but there is a washroom	Yes, one shower	Yes, but it is not compulsory	Yes and it is compulsory

**4 of 5 - Occupational Lead Exposure**

# Benchmarking Tool

No.	Safety	A	B	C	D
1	Is there a Safety Policy published and available for inspection?	No	In a safety folder	On display on site	On display and on the web site
2	Are there regular Safety Inspections and Audits?	No	Sometimes after an accident	Inspections but no audits	annually
3	Does every employee & contractor undergo a Safety Induction?	No	Employees only	Contractors only	Everybody
4	Have risk assessments been carried out for each operation?	No	Only for the EIA	Only for ISO 9001	Yes
5	Is there a record of every accident on site?	No	There is an accident book	Some accidents are recorded	Yes in the accident book
6	Is every accident investigated?	No	Yes, by the plant manager	Yes, by the insurance company	Yes, by a joint management & worker team
7	Is there a Permit to Work and Lock-Off system for maintenance?	No	Permit to work only	Lock-off only	Yes and with keys and locks
8	What Fire Precautions and Procedures are in place?	None	There are fire extinguishers	There are sand buckets	There are extinguishers & sand buckets

# Benchmarking Tool

## Use of the Benchmarking Tool

### ❖ *Practical Application*

- ✓ *Complete the Assessment Form*
- ✓ *Identify the Key Benchmarks*
- ✓ *Determine Compliance with Benchmarks*
- ✓ *Repeat for each section of the Form*
- ✓ *Prepare recommendations*

# ULAB Recycling Plant

## Benchmark Phases for ULAB Recycling

### ❖ *The Outcome*

- I. Short Term – Minimum or no cost*
- II. Short/Medium Term – Low Cost*
- III. Long Term – Capital Investment*

# Thank You

