

What should be included in a lead battery audit process?

In addition, the resource and energy consumption of lead battery production is also large, the audit process should pay attention to the source of production to reduce energy and material consumption, recycling of solid waste, in order to achieve the purpose of clean production. 4.

How can LCA reduce environmental pollution in the lead battery industry?

Using LCA in the lead battery industry, we can identify the environmental impact caused by the production process of lead batteries from the perspective of life cycle, and identify the key factors causing the environmental impact, so as to reduce the environmental pollution in the battery industry. Provide theoretical guidance.

How a lead-acid battery manufacturer is a research object?

In this paper, a lead-acid battery manufacturer is selected as a research object, which has an annual output of 1.1 million KVAH lead-acid batteries. The production process is mainly divided into three processes: the preparation of raw materials, plate casting and final assembly and formation.

How are data input and output statistics calculated for lead-acid battery production?

Data input and output statistics are calculated for the three main processes of lead-acid battery production: raw material preparation, plate casting, and final assembly and formation. This part of the data needs to be borrowed from the China Life Cycle Basic Database (CLCD).

What is the life cycle assessment method for lead-acid batteries?

Using the life cycle assessment method, the data in the life cycle of lead-acid batteries were screened and calculated, and then assessed and analyzed by the CML2001 model to obtain the life cycle assessment results.

Which process has the greatest environmental impact in lead battery production?

From this result, it can be seen that the final assembly and formation process has the greatest environmental impact in the production of lead battery industry, and is therefore considered the primary target of clean production.

We deploy advanced enterprise resource planning (ERP) and manufacturing execution system (MES), including our bespoke (SAP) EY Battery Cell Assembling and (SAP) Battery ...

The objective of this case study is to reinforce the messages contained in the Audit Planning & Risk Assessment Guide through the completion of a practitioner based case study that will cover the following key stages in the audit planning and risk assessment cycle: Identification of the Audit Universe and related objectives;

III. ENERGY DESCRIPTION IN THE UTILITY. A. Energy Consumption Pattern . Fig. 2. KVAH Consumption Pattern . Fig. 3. Rs. KVAH Consumption Pattern[3] B. Boiler Details . Thermic fluid is used as a heating medium to cater the

Recognising that IAFs vary in quality in terms of both independence and professional qualifications (Arena & Jeppesen, 2010), a single-case study (Yin, 2009) has been performed of an IAF in a large Danish ...

Instead, we will focus on three key issues that have not been adequately explored in the literature to-date: 1) selecting relevant environmental performance metrics and ...

New manufacturing approaches to nuclear components and fuels - the New Nuclear Manufacturing programme, part-funded by the EPSRC, has improved and developed existing and new manufacturing technologies in areas such as welding and machining. Hybrid fuel cell battery systems - research has led to the development of hybrid fuel cell battery

\* Study by PEM of RWTH A achen University: 10 GWh p.a., approx. 30.000.000 Pouch cells p.a., cell capacity: 80 Ah Innovations/Trends Current technology alternatives Growth of stacking speed ...

Assess the whole life cycle of the battery systems from cradle to grave/cradle, including: raw material acquisition, production of (sub-)components, transport to customer, ...

The purpose of this study is to determine the implementation of the production function is in accordance with the standard production function that has been set at the company PT.

Elion Technologies and Consulting Pvt. Ltd."s successful execution of the Comprehensive Energy Audit exemplifies our commitment to optimizing energy consumption and fostering sustainable practices in the manufacturing sector. This case study highlights our ability to deliver tailored solutions for battery manufacturers, ultimately ...

Corrigendum to "Energy saving potential analysis applying factory scale energy audit - A case study of food production" [Heliyon 9 (3), (March 2023) Article e14216] Article.

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