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Storage Method for Parts from End of Life Vehicles' Dismantling Process According to Sustainable Development Requirements: Polish Case Study

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Abstract : Vehicle is one of the most influential and complex product worldwide, which affects people's life, state of the environment and condition of the economy (all aspects of sustainable development concept) during each stage of lifecycle. With the increase of vehicles' number, there is growing potential for management of End of Life Vehicle (ELV), which is hazardous waste. From one point of view, the ELV should be managed to ensure risk elimination, but from another point, it should be treated as a source of valuable materials and spare parts. In order to obtain materials and spare parts, there are established recycling networks, which are an example of sustainable policy realization at the national level. The basic object in the polish recycling network is dismantling facility. The output material streams in dismantling stations include waste, which very often generate costs and spare parts, that have the biggest potential for revenues creation. Both outputs are stored into warehouses, according to the law. In accordance to the revenue creation and sustainability potential, it has been placed a strong emphasis on storage process. We present the concept of storage method, which takes into account the specific of the dismantling facility in order to support decision-making process with regard to the principles of sustainable development. The method was developed on the basis of case study of one of the greatest dismantling facility in Poland.

Keywords: dismantling, end of life vehicles, sustainability, storage

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