

REVIEW

05
06

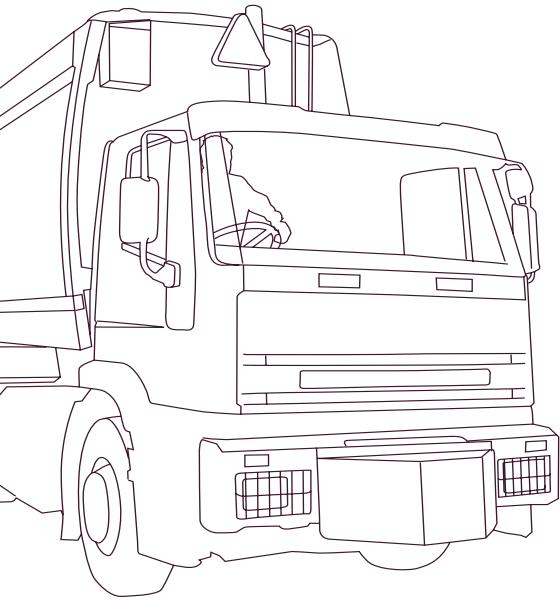
VEOLIA ENVIRONMENTAL SERVICES' BUSINESS MAGAZINE



WASTE RECOVERY
AND RECYCLING
CHALLENGES OF
THE 21ST CENTURY

PAGE 58

REPORT



ECO-FRIENDLY SOLUTIONS

FOR WASTE COLLECTION AND TRANSPORTATION

Waste collection, the first link in our treatment chain, is key to the transfer of waste to appropriate facilities for further treatment. Change in this activity is being driven by tighter standards, health and safety requirements, and cost control.

Technological advances, organizational models and assessment methods are all levers for progress in improving employee working conditions, optimizing service, and reducing pollution and environmental impacts. User cooperation in source separation is another challenge that Veolia Environmental Services is addressing alongside its public authority partners.

Lastly, the development of multimodal transportation for waste transfer is one of our goals. The introduction of river transportation for industrial waste in the Paris region and rail transportation for Sydney and its suburbs are examples of our achievements in this field.

Vehicle modernization

Every stage of the waste management chain is in need of greater technical sophistication. Collection, with its productivity targets, is undergoing a process of study and project management in which CREED* is playing a major role. At our request, CREED has developed a method for assessing the efficiency of municipal waste collection vehicles. Modernization of these vehicles covers every aspect: comfort, safety, energy efficiency and the reduction of polluting emissions.

The use of natural gas vehicles was a competitive advantage in our bid to secure the renewal of our waste collection contract in Paris, where we collect the waste generated by 580,000 residents in six districts. In addition to being far quieter and generating much less pollution, these vehicles are more comfortable for collection staff.

The introduction of container lifts follows the same logic. They reduce noise pollution and fuel consumption while improving the safety of handling operations. The system is the result of two years of collaboration between the public operator in Nantes in western France, Veolia Environmental Services and Ecopress. The lift is highly energy efficient since the battery recharges every time it lowers a container. Significant safety improvements include fully vertical lifting with tipping at the top, and an automatic shut-off if an obstacle is met on the way down. In France's Centre-Ouest region, which has been involved in the project since the outset, about 20 vehicles have been equipped with the system, and the experiment has now been extended to the Oise and Somme departments.

Automated side-loading (ASL) collection vehicles are widely used in Northern Europe, where strict work regulations are in force. Veolia Environmental Services first introduced them in the Est region of France, followed by Centre-Ouest and Ile-de-France. Containers are picked up by a hydraulic arm controlled by the vehicle driver, who tracks progress on a video monitor in the cab. ASL is more economical than conventional collection, and is particularly efficient for curbside collection in residential areas with predominantly single-family houses, as well as in rural areas. ●●●

* Research center for the environment, energy and waste

