## SYSTEM ORGANIZATION OF AUTOMOBILE RECYCLING AND LOGISTICS PROBLEMS

© 2010 © A.I. Petrova\*

**Keywords:** automobile recycling, ecological, social and economic effects, the federal program on old cars recycling, logistical approach, logistical systems, logistical chains, problems of industrial, warehouse and transport logistics, optimization of logistical processes, effective system of auto recycling.

The article is devoted to the issues of company autorecycling - events targeted on collecting and recycling of automobile complex secondary resources. Social, ecological and economic effects of this process are revealed.

Automobile recycling is activity accomplished by any institution targeted on gathering and processing of the secondary resources of a motor transportation complex.

The development of automobile recycling provides the following effects:

- 1) ecological character:
- 1.1) a partial solution to the problem of not renewable natural resources and energy sources;
- 1.2) reduction of air, soil and water pollution:
  - 2) social character:
- 2.1) the problem of personal motor transport;
- 2.2) creation of additional workplaces at the enterprises processing cars unsuitable to operation;
  - 2.3) preventing accidents on roads;
- 2.4) elimination of inconvenience for pedestrians;
- 2.5) improvement of architectural shape and city video ecology, i.e. maintenance of the ecology of visual environment and beauty;
- 2.6) liquidation of difficulties in cleaning the city, especially in winter time, for carrying out civil work on territory accomplishment;
- 2.7) removal of obstacles for the work of police, fire and first aid;
  - 3) economic character:
  - 3.1) support of the Russian motor industry;
- 3.2) possibility of using secondary resources of motor transportation complex.

The federal program on recycling old cars has taken effect in Russia on March, 8th, 2010. Each citizen of the Russian Federation having at the car, made in 1999 or earlier, can change the car for the certificate for the sum of 50

thousand rubles and use it for purchasing the new car of domestic assemblage.

The logistical approach in managing the recycling of old cars provides integration of all existing processes from education to final recycling, the fullest account of time and spatial factors for management optimization by material, financial and information streams and achievements of tactical targets of all system is thus carried out.

To construct the logistical system it is necessary to allocate logistical chains. At such approach these systems represent the association of many logistical chains: technological, transport, organizational, connecting all links of operated process.

The main components of the increase of management efficiency movement of the cars is:

- ♦ the process organization (the logistical approach) by rational management of material, financial, information streams;
- ♦ construction of modern information control system by the participants of transport-logistical chains on the basis of open system standards.

Enterprises engaged in automobile recycling and taking part in federal program face logistical problems in the sphere of manufacture, warehousing and transportation of motor vehicles to recycling places, among which are:

- 1) problems of industrial logistics:
- 1.1) choosing the way of vehicle dismantle;
- 1.2) the use of secondary raw materials in motor industry;
- 1.3) following the ecological norms by automobile recycling:
- 1.4) sorting of secondary raw materials at dismantle;

<sup>\*</sup> Anna I. Petrova, post-graduat student of Samara State Economic University. E-mail: petrova121@mail.ru.

- 2) problems of warehouse logistics:
- 2.1) parking for the cars which have left operation;
- 2.2) warehousing of a waste at vehicles processing;
  - 3) problems of transport logistics:
- 3.1) optimization of expenses for transportation of cars to the place of processing;
- 3.2) rational use of load-carrying capacity and capacity of vehicles for transportation of the cars which have left operation to the place of processing;
- 3.3) optimum choice of a kind and type of vehicles for transportation of the cars which have left operation to the place of processing.

The efficiency of gathering and transportation of old cars is very important. It is connected with more and more raising power inputs on transportation and big dimensions of the vehicles which have left operation in comparison to their rather small weight.

Nevertheless despite the problems in this field of activity, participation of enterprises in the federal program on automobile recycling, is an additional source of making profit. Thus, automobile recycling can become profitable business and an important part of market economy.

Received for publication on 03.09.2010