Legal frameworks

In the Russian Federation the Federal Service for Supervision of Nature Resources is the Federal Executive Authority which exercises functions of control and supervision in sphere of environmental management, as well as within its competence in the field of environmental protection, including restriction of negative technogenic impact, in the field of waste management (excluding radioactive waste) and state ecological expertise.

The market of waste management is regulated by the Federal law of 24.06.1998 No. 89-FZ “On Production and Consumption Waste”, which establishes the basic principles of the state policy in the field of waste management (except radioactive), the procedure for determining the property rights for them, as well as the basic of ecological control. Besides, according to this law the organization of activity in the field of waste management is placed under the jurisdiction of the local government authority. This is also indicated by the Federal law № 131-FZ of 06.10.2003 ”On General Principles of Establishment of Local Self-government in the Russian Federation”. Thus, the order of collection of solid domestic waste (hereinafter - SDW), the place of their sorting and utilisation, sanitary standards and rules of accomplishment are determined by local self-government authorities.

Activities related to SDW, always in contact with the environment, therefore considerable part of the normative basis regulating this sphere is composed of the following regulatory legal acts:

1. Federal Law of 10.01.2002 No 7-FZ «On protection of environment»- defines the powers of local authorities in the sphere of relations connected with environmental protection. This Federal Law determines that:
   • organization of actions of intersettlement nature on environmental protection and organization of utilization and processing of household and industrial waste are referred to issues of local significance of the municipal district;
   • organization of environmental protection actions within the boundaries of the urban district and the organization of collection, removal, disposal and utilizing of domestic and industrial waste are referred to issues of local importance of the urban district.

This Federal law also obliges to observe the requirements for the neutralization and safe disposal of waste, to normalize formation and to limit waste disposal, licensing some activity category in the field of environmental protection.

2. Federal Law No 96-ФЗ of 04.05.1999 «On Protection of Atmospheric Air» sets the requirements for prevention of adverse impact on atmospheric air by production and consumption waste during storage, disposal and deactivation. This means that all
objects connected with the processing, disposal, deactivation of solid household waste are obliged to prevent and reduce emissions of harmful substances. Particularly it concerns combustion plants and firing ground that are the major sources of harmful emissions.

3.”Land Code of the Russian Federation” obligates the land users to protect acres from littering with production and consumption wastes, pollution.

4. Federal Law No 52-FZ of 30.03.1999 ”On Sanitary and Epidemiological Welfare of Population” - regulates the sanitary requirements to the procedure, conditions and methods of collecting, using, neutralization, transportation, storage and disposal of production and consumption waste, which also should be established by local authorities and have Sanitary-Epidemiological Certificate.

5. Federal law of 04.05.2011 No 99-FZ ”On Licensing of Certain Activities” regulates relations connected with licensing of the certain types of activity with regard to waste management.

Definition
Solid domestic waste (SDW) production and consumption waste (hereinafter - wastes) - the residue of raw products, materials, half-finished products, other goods or products which are formed in the process of production or consumption, as well as goods (products) that have lost their consumer properties. Such waste includes household waste, waste of light industry and construction waste.

SDW is characterized as composition with many components and heterogenesious structure, low thickness and instability (ability to decay).

Collection of solid domestic waste by municipal enterprises
Waste is a subject of property rights. Property right\(^1\) for waste which are formed in the process of consumption of raw products, materials, half-finished products, other goods or products, as well as goods (products) is belong to the owner.

The owner bears the burden of maintaining his property, unless otherwise is stipulated by the law or agreement\(^2\).

Individual entrepreneurs or legal entities executing its activities in the sphere of waste circulation are obliged\(^3\) to maintain according to the specified procedure a register of the composed, utilized, decontaminated, handed over to other entities or excepted from other entities as well as disposed waste.

Wasted is considered to be disposed by its owner even if for purpose of waste relocation other parties are involved. Thus the owner of the disposed waste is considered to be the payer of the fee for negative impact on the environment.

The right of waste ownership can be acquired by other entity on the basis of buy and sell agreement, exchange, by way of gift or other transaction on alienation of

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\(^1\) Art. 4 of the Federal Law of 24.06.1998 № 89-FZ “On production waste and wastes of consumption”.

\(^2\) Art. 201 of the Civil Code of the Russian Federation.

\(^3\) Art. 19 of the Federal Law of 24.06.1998 № 89-FZ “On production waste and wastes of consumption”.

waste. Moreover, the owner can hand his property to other entity/person, remaining the owner of the property.

Owner of dangerous waste has the right:
- alienate dangerous waste for ownership by other person/entity;
- while remaining the owner hand over to other person/entity the right of ownership, use or disposal of dangerous waste if this person/entity has a license to execute activities in the sphere of dangerous waste.


For collection and transportation of domestic waste the authorities of local self-governance can establish specialized municipal enterprises or conclude agreements with enterprises of other forms of ownership. The activities of such enterprises are regulated by the Rules on provision of transportation service of solid and liquid domestic waste.

Local self-governance authorities are obliged to conduct tenders for election of managing companies for multi-storey apartment buildings as tendering allows to attract new companies into the relative market and to develop demand for services in regards to maintenance and repairs of apartment buildings, and as well for services of transportation, utilization and burial of solid domestic waste.

Time limits, conditions and quality of services are prescribed in the agreement.

Access to waste sorting stations, waste burning plants, landfill is granted on the basis of concluded agreement.

The market of the solid domestic waste is characterized by distinguishingly low competitiveness, especially in regional levels. Specifics of the market are its localized character. As a rule there is a certain number of players that control the market of turnover of solid domestic waste. Any number of participants can compete for one household.

Separation of waste collection is a process of gathering different types of waste separately. All types of waste are subdivided into 5 hazard grades:
- Hazard grade 1: the most hazardous waste e.g. used mercury lamps;
- Hazard grade 2: hazardous waste e.g. used sulphuric acid, used automobile batteries filled with sulphuric acid;
- Hazard grade 3: hazardous waste e.g. used automobile and industrial oils, oil rags;
- Hazard grade 4: low hazardous waste e.g. solid domestic waste, iron scrap;
- Hazard grade 5: practically non-hazardous waste.

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4 Clause 2 of Art. 4 № 89-FZ Federal Law of 24.06.1998 № 89-FZ “On production waste and wastes of consumption”.
6 Art 14 Clause 18
For collection of solid domestic waste there should be specialized allocated places for containers (bins) with convenient approaches for automobile vehicles. The site should be open with waterproof shelter and preferably fenced with hedges or green planting. A number of installed waste containers can be calculated on the basis of quantity of citizens using these containers, rate of waste accumulation, storage time for waste. Design volume of waste containers should meet actual formation of waste during periods of its maximum formation. Solid domestic waste should be removed by waste trucks.

Major difficulty on the way to solid domestic waste recycling is lack of developed system of separated waste collection in Russia which is the necessary condition for profound waste recycling.

Sorting of waste by the population is not performed and all the waste is dumped in containers of general use. Separated waste collection by Russian population distinguishes between large scale items and all other types of solid domestic waste.

Solid domestic waste collection service is financed from fees collected from households.

In accordance to sub-clause”д” of clause 11 of Rules of maintenance of jointly owned property in the multi apartment buildings the structure of works and services includes collection and removal of solid and liquid domestic waste, inclusive of waste from individual entrepreneurs and organizations, that are using uninhabited premises in the in the multi apartment buildings.

The Federal Law of 31 December 2004 № 210-FZ “On the bases of tariff regulation of organization of communal complex” does not include solid domestic waste collection and removal services to the number of services in the sphere of communal complex that are liable to state regulation. This service is competitive and its price is set by the organization providing the service on the basis of agreement with the consumer, i.e. the so-called “Management Company of the union of property owners”. The price for solid domestic waste collection is developed in accordance with the methodology of calculation of fee.

**Waste Sorting station**

The subsisting system of management of municipal solid waste in the Russian Federation is economically and technologically ineffective.

The main reasons this state of affairs are the insecurity of urban districts and municipal areas sufficient amount of accommodation facilities, as well as technical means of collection and transportation of waste. Tens of villages not covered services for the collection, transportation and disposal of waste.

Planning and deployment of temporary waste storage facilities, the standard number of vehicles for their exportation, waste disposal activities of the private sector,
recreational areas are defined on the basis of general purification schemes of municipalities, which are approved by local authorities at least once every five years.\textsuperscript{11}

It's worth noting that, that no law obliges municipalities to build facilities for waste management, the law requires "to organize the process." Moreover, according to the Federal Law № 115-FZ "On the budget classification of the Russian Federation" does not provide for expenditure on the construction of facilities for decontamination and disposal or recycling of waste.

Solid waste processing stations can be both in public and private ownership.

Stations are managed by municipalities or the organizations that have been concluded contracts by results of auction procedures.

According to the analysis of technologies of waste processing in the world, the most problematic and cost process that is prior to any processing of secondary raw materials is waste sorting.

The main cause of lack of development in this sector of the market is non-usage of separate collection of waste in Russia.

Therefore, we can conclude that the separate collection, sorting and recycling of secondary raw materials extracted from waste, requires considerable time and considerable financial resources, while the demand for many secondary products is not high. The consequence of these factors is the very low levels of development of the sector and the competition in this area.

**Landfills**

Nowadays, disposal of waste in landfills is the main method of waste disposal, due to the high volume and rate of accumulation of waste consumption at the weak development of the industry of recycling.

If the land is in private ownership, in private ownership, in ownership of subjects of the Russian Federation or in other proprietary interest, the responsibility for littering the site and its pollution due to placing the illegal landfills should be borne by the owner, leaseholder, land user, land owner.

A solid waste landfill is a special facility intended for the isolation and disposal of solid waste.

Landfills should guarantee sanitary and epidemiological safety of the population. On polygons provided by the static stability of solid waste, taking into account the dynamics of compaction, salinity, gas emission, the maximum load per unit area, the possibility of subsequent rational use of the site after the closure of landfills (recreultivation).

Landfills can be organized for communities of any size. It is recommended that centralized landfills for groups of settlements are created.

Landfills are located outside the cities and communities\textsuperscript{12}. The size of the sanitary protection zone from the residential area to the boundaries of the landfill is 500 meters. In addition, the size of the sanitary protection zone is specified in calculating of gas release.

Nowadays, the majority of facilities used for the disposal (disposal) of solid waste are located on land owned by the subjects of the Russian Federation or municipal property.

As previously noted, the organization of recycling and processing waste refers to the local issues of municipal and urban districts.

The following barriers to market entry can be identified in this sphere:

1. One of the main barriers in this sphere is an ecological barrier.

Ecological barrier is difficult to surmountable, and its presence causes the monopolistic structure of the market, since ensuring the protection of the environment does not allow you to create multiple test landfills in the vicinity of human settlements. Replacing the waste disposal services for waste incineration and recycling are extremely costly and uneconomical. Moreover, the burning of waste has a significant negative impact on the environment.

2. Administrative barriers to entry in this sector is the procedure for obtaining land for the organization of the landfill, as the number of such land is limited, in view of the limited areas, and based on the requirements of environmental, health safety.

Landfills require significant upfront financial costs as well as costs in the period of time of their operation, including for ensuring the maintenance of the corresponding state of communications.

3. In addition, these activities are inherent costs to exit from the market. So that the polygon (landfill) at the end of its use is subject to recultivation, which also requires significant capital expenditures.

Therefore, taking into account the requirements for an economic entities, engaged in services in a given market, the number of participants of this process is limited.

\textbf{Incineration}

The most widespread method of utilization of solid domestic waste is incineration with the subsequent burial in the special landfill.

Burning plants are managed publicly as they are constructed at the expense of state budget. Even if the plants are joint-stock companies, they have some state shares.

The recycling price at burning plants is established by the owner.

Competition is at a low level in this sector because of a small amount of such plants in Russia.

There is no state support or state subsidies for construction or management of incineration in Russia. However the state or municipal preferences can be provided\textsuperscript{13} on

\textsuperscript{12} Instruction on design, operation and recultivation of landfills for solid domestic waste” adopted by the Ministry of Construction of the Russian Federation of 02.11.1996

\textsuperscript{13} Clause 1 of Art. 19 of the Federal Law “ of 26.07.2006 No. 135-FZ “On protection of competition”.
the basis of legal acts of federal executive authority, public authority of the Russian Federation subject, local self-governance authorities, other bodies carrying out the same functions of the specified body or organizations for the purpose of environment protection.

There aren't so many enterprises which are engaged in waste recycling, thus in the majority they are concentrated in the large cities or in their suburbs (generally in Moscow).

There are some reasons of lack of development of this market:
1) construction of waste burning plants demands considerable financial expenditure;
2) strict requirements are introduced for reduction of environment emissions owing to branch specificity. It causes constantly a need to improve technologies and equipment increasing costs and additional financing.

**System of expanded liability performance of the producer**

Packing (transport, service or commodity, including container) - the product of industrial production intended for protection against different external influences, storages, transportations, loadings, unloadings, deliveries and realization of various goods, including raw materials and finished goods, in all spheres of activity of the person;

Packing waste is packing that lost fully or partly its consumer properties in the course of circulation;

**The technology of container processing and packing materials** is one of the priority directions of development of science and technology for the next decade. Nowadays packing is not only the most important component production and realization of goods but also an indicator of society development. A good packing not only protects goods during transportation and storage but also plays an important role in promotion of goods in the market.

The special legislation is developed now regulating the sphere on recycling of packing waste, including questions of collecting, transportation, recycling, utilization and elimination of packing waste for ensuring ecological safety and health of the person, resource-saving and environmental pollution prevention. Before adoption of the relevant acts the issues will continue to be regulated according to legislative and regulations in the sphere of ecological safety and other adjacent spheres.

**Recyclable materials markets**

Using of recyclable materials as a new resource base is one of most dynamically developing trends of waste recycling in the world. It is rather new trend for Russia.

The Russian Federation possesses considerable resources of recyclable materials which can be characterized as renewable raw material, physical and energy resources.
The recyclable materials\textsuperscript{14} are understood as secondary physical resources which can be reused in a national economy. Thus secondary physical resources are understood as production wastes and consumption which are formed in a national economy.

According to statistics, only 3\% of domestic raw materials are recycled in the Russian Federation.

Fundamental feature of the recyclable materials market as a whole (on the average by all its types) is considerable imbalance between developing demand and the potential supply. In particular, the supply (which it must be kept in mind resources of all annually being formed and already saved up before waste) considerably surpasses the demand for them as on recyclable materials. On the one hand it is caused by the fact that formation of waste, unlike production of goods in market conditions, isn't the purpose of production, but only a consequence of imperfection of the modern technological base that can't function waste-freeley.

Competition is at a low level in this sector because of dependence of the solid domestic waste collection and preparation market. The effectively technologies of solid domestic waste separate collection will take root the percent of received recyclable materials will be higher owing to what there are preconditions for competition development between participants of the market.

Other waste products

Other waste products generated by some of production activities are not always secure and cannot be recycled. Many of the waste products are extremely toxic, highly explosive, radioactive, chemically reactive and inflammable; they are bearers of different diseases and inimical bacteria. Ecologists rank such wastes as dangerous or extra hazardous. Hazardous waste collection and transportation including their utilization and storage, burial and treatment should be managed in a special way to exclude or minimize harm caused to environment.

There are number of economical and administrative barriers for setting up new market players providing hazardous waste management services. Primarily it depends on considerable initial expenses and extremely complicated procedures for obtaining a license.

Administrative barriers: Federal Law “On consumption and production wastes” states requirements for business entities providing waste management services, including:

- requirements for hazardous waste management;
- requirements for professional training of persons admitted to hazardous waste management;
- requirements for hazardous waste transportation.

\textsuperscript{14} Definition “secondary raw materials” are regulated by the State Standard 25916-83 “Secondary material resources”. Terms and Definitions”.
In accordance with Federal Law “On licensing separate types of activity” of 08.08.2001 N 128-FZ the hazardous waste management activity is required to be licensed.

At the same time, the development of competition occurs in this sector due to majority of private companies operating at the waste material collection and utilization market.

**Anticompetitive cases and investigations**

The FAS Russia has conducted a number of investigations upon violations of the Federal Law on Protection of Competition in the sector of waste management. Some of the cases are given below:

**Case N 1:**
In the frameworks of compliance with competition legislation, the FAS Russia’s Moscow regional unit initiated the case N 1-15-994/77-12, having discovered evidences of violation by Moscow City Government part 1 Article 15 the Federal Law on Protection of Competition expressed in issuing Direction N 1395-PII of 28.07.2005, provided transfer of rights and obligations in accordance with agreement on implementation of project on management of financing, constructing and exploiting of waste processing plant N1 without carrying out competitive procedures.

The FAS Russia’s Moscow regional unit issued the injunction to Moscow City Government to withdraw violation of antimonopoly legislation.

**Case N 2:**
Presidium of the Supreme Arbitration Court of the Russian Federation upheld the Decision of the FAS Russia’s Primorskiy regional unit. (Resolution N 14746|12 of 23.04.2013.) In accordance with the Decision of the FAS Russia’s Primorskiy regional unit, actions of OOO “VOSTOKSTOISERVICE” expressed in imposing of unfavorable conditions of hard wastes utilization agreement to its contractors (in part of establishing limits to admission of hard domestic wastes and payment for over limits), were found violating the order of pricing on hard waste utilisations services and setting up discriminating conditions on hard wastes utilisations agreements (in part of establishing different limits of admission and different value of hard wastes over limits admission), and were qualified as abusing of dominant position on providing hard wastes utilization services at commodity market. (parts 3, 8, 10 Article 10 Federal Law on Protection of Competition).

On the basis of the conducted research it is possible to identify the following barriers for the entry into the market of waste circulation.
The major obstacle is the undeveloped market infrastructure which is linked with the necessity of buying special equipment and hiring of specialized staff.

In the opinion of many economic entities their activities are impeded by high tear and wear of the special equipment, huge costs for petrol and oil products and technical servicing of equipment.

Moreover some economic factors complicate and restrict activities in the market: long return of capital investment, lack of efficient support for small enterprises, low rates of return, unduly paying off of fees by clients.

Among administrative barriers economic entities point out the necessity of applying for licenses for execution of activities in regards to neutralization and disposal of hazardous waste of grades 1-4.

It is worth mentioning that according to the FAS Russia’s Plan of activities in analyzing the state of competition on the product markets for years 2013-2014\textsuperscript{15} the analysis of the market of solid domestic waste is carried out.

Presently regional offices of the FAS Russia conduct regional market analysis which will be submitted to the Central Office of the FAS Russia for assessment and conclusion.

Bearing in mind the regional character of the waste circulation market the results of this assessment will have great significance for revelation of barriers for market entry as well as analysis of the state of competition.

Moreover, aiming at stimulating of economic activities in the sphere of waste circulation the work on amendments to the Federal Law “On industrial and domestic waste”, other legislative acts of the Russian Federation is presently carried out with active participation of FAS Russia’s representatives.

\textsuperscript{15} Approved by the FAS Russia’s Bylaw of 19.12.2012 No. 773/12.