



NOVOLIPETSK STEEL

APPROVED BY
Director for Environment

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Novolipetsk Steel's standard requirements to contractor organizations for environmental protection

I. GENERAL REQUIREMENTS

In order to eliminate or minimize the negative impact on the environment, the management of contractor organizations is obliged to ensure the compliance and fulfilment of environmental requirements by subordinate personnel, when performing work at the plant's facilities.

Prior to commencement of work, the management of a contractor organization initiates the development of the activities management plan (AMP), work execution plan (WEP) or a similar document regulating the safe sequence of operations and including measures that eliminate or minimize the negative Impact on the environment, including the organization of waste storage sites; approves this documentation with the customer or with the receiving business unit, and finalizes it.

Each employee of contractor organizations operating on site (premises) of Novolipetsk Steel is **obliged to comply with the requirements of the "Key Rules for Environmental Protection at Novolipetsk Steel"**:

In order to exclude violations in the field of environmental protection, employees are

PROHIBITED to:

- 1. Operate the equipment when the dust-gas treatment plants are switched off.**
- 2. Operate the equipment without taking environmental measures to reduce pollutant emissions into the atmosphere when unfavourable meteorological conditions (UMC) are declared.**
- 3. Discharge effluents to the industrial site or perform unauthorized collection of wastewaters in the plant's sewer systems.**
- 4. Store waste at unappropriated sites and containers.**
- 5. Clutter the premises.**
- 6. Perform unauthorized burning of waste.**
- 7. Implement actions aimed at concealment and (or) misrepresentation of facts and circumstances of industrial incidents affecting the environment.**

II. ATMOSPHERIC AIR PROTECTION REQUIREMENTS

Contractor organizations may only use technological and processing units and vehicles on the premises of Novolipetsk Steel subject to availability of certificate of conformity of the content of harmful (pollutant) substances in their emissions to emission standards.

The use of new equipment, technologies, materials, substances and other products and the use of process equipment and other hardware not conforming to the statutory atmospheric air protection requirements is **PROHIBITED**.

Loading and unloading of materials, substances, wastes and products onto (from) vehicles must be carried out using dust suppression means. In the event of a wind causing increased dust emission, it is necessary to limit or stop loading and unloading operations completely.

The delivery of materials, substances, wastes and products must be carried out using specialized vehicles (waterproof body, tightly closed ramp, canvas cover, etc.), which prevents dusting, spillage and leaks.

During the storage and use of dusty materials, substances, wastes and products, it is necessary to suppress dusting in various ways using water (humidification, water curtain) or other means.

Contractor organizations having stationary sources of air contamination are obliged to develop and implement measures aimed at minimization of emissions in a timely manner when unfavourable meteorological conditions (UMC) are declared.

The use of materials, substances and products that can lead to excess MPC at the border of Novolipetsk Steel's sanitary protection zone (SPZ) is **PROHIBITED**.

III. TRAINING REQUIREMENTS

Employees of contractor organizations are allowed to work on the facilities of the plant subject to availability of documents confirming that the managers of contractor organizations have been instructed for environmental safety.

The management of contractor organizations should appoint designated persons among their employees, responsible for handling waste and clearance procedures for workers who are required to take a special training course (under statutory requirements) granting a document for the right to work with I-IV hazard class of waste.

IV. WASTE MANAGEMENT REQUIREMENTS

Management of mercury waste

Mercury waste includes:

- Used mercury-containing lamps;
- Mercury-containing devices;
- Used mercury;
- Electrochemical units, containing mercury and mercury salts;
- Used reagents, containing mercury and mercury salts;
- Fragments of mercury containing lamps;
- Other waste, containing mercury and mercury salts.

Mercury waste must be collected and transported in metal containers with a lid. Mercury containing lamps must be packed in unimpaired factory packaging. Instead of factory packaging waste mercury-containing lamps can be stored in cardboard boxes. In this case, the lamps should be separated from each other by paper or

cardboard to exclude their breakage during transportation. Metal container with mercury-containing lamps must be kept indoors, preventing unauthorized access.

Management of waste generated during the provision of services by contractors

Waste generated during the provision of services by contractors falls into one of the following categories:

- own waste (waste generated during the maintenance of equipment, when using the company's own feedstock and materials, including the ones purchased from Novolipetsk Steel, solid consumer waste of the contractor);

- Novolipetsk Steel's waste generated during the performance of works (rendering services) by contractors from materials (feedstock) owned by Novolipetsk Steel.

Contractor organization is obliged to manage its own waste discretionary through its own contracts for waste dumping or disposal. Contractor organizations are obliged to accumulate their own waste in their own containers or containers leased from Novolipetsk Steel and on sites equipped in accordance with the requirements of sanitary rules and regulations. Contractor organizations are obliged to transport their own waste with their own transport or outsource it. Contractor organizations may handover their own waste to Novolipetsk Steel's waste landfills if there is such an item in the service agreement, approved by NLMK's Industrial Ecology Department, or when there is a separate agreement for receiving waste from contractors.

Management of Novolipetsk Steel's waste generated during the performance of works (rendering services) by contractors.

Management of Novolipetsk Steel's waste is performed by the business unit, on whose premises contractor organization operates, and/or taking over the completed facility, similarly to their own waste. The person responsible for waste management in the unit instructs the personnel of contractor organization on the issues of waste management and indicates areas where waste should be accumulated (container and site numbers).

Employees of the contractor organization are obliged to accumulate waste strictly in specified containers or sites. Novolipetsk Steel's waste disposal to designated areas is performed by the contractor organization or the business unit, on whose premises the contractor organization operates, and/or taking over the completed facility. In the event of new waste being generated in the course of work, the person responsible for waste management in the business unit shall instruct the contractor's employees on the procedure for accumulation of such wastes.

V. REQUIREMENTS TO EFFLUENTS DISCHARGE

General requirements

The volume of effluents discharge and the areas for such effluents generated as a result of the activities of contractor organization at the plant's facilities should be recorded in approved activities management plan (AMP) and work execution plan (WEP).

Procedure for discharging effluents generated as a result of power equipment washing

After chemical washing of power equipment with reagents contractor organization shall perform the flushing of

equipment with technical water to remove the residues. Discharge of flush water, generated as a result of power equipment flushing with technical water, is performed to the plant's industrial storm water discharge system (subject to approval by NLMK's Industrial Ecology Department and Power and Utilities Division) or to the business unit's water recycling system (subject to approval by NLMK's Power and Utilities Division). The discharge of flush water to the plant's domestic sewage system is **PROHIBITED**.

Procedure for disposal of waste washing solution

Authorized person shall:

- extract 1 litre of waste washing solution from each collecting tank ($V=1 \text{ m}^3$);
- neutralize each sample of the solution with lime, soda or sodium alkali to bring the pH value of the waste solution to $\text{pH} > 4.2$;
- use universal pH paper (if $\text{pH} < 5$, then with a portable pH meter) to determine the pH of the neutralized solution;
- take formal note giving pH values for the solution in each collecting tank;
- put the neutralized solution in plastic containers ($V=1 \text{ m}^3$);
- samples the neutralized solution and studies the content of chlorides and iron (total) (at NLMK's request the list of indicators can be expanded);
- send the results and information on the volume of waste solution (m^3) to NLMK's Industrial Ecology Department and Power and Utilities Division to determine the location for its disposal;
- neutralize the waste reagent on the day of its disposal in order to bring the pH of the waste solution to $\text{pH} > 4.2$;
- inform NLMK's Industrial Ecology Department and Power and Utilities Division about the time of disposal in the designated site.

The disposal (discharge) of waste solutions into sewer systems and to the ground is **PROHIBITED**.

In case of emergency spills of the reagent the spill area must be banked up with sand (soil) and covered with chalk or lime; the resulting pulp must be collected with shovels or scoops in polyethylene garbage bags and transported for disposal to the contractor's site at the contractor's expense.

VI. REQUIREMENTS TO THE TERRITORY

The head of the business unit owning the territory where the contractor operates should designate the contractor's location and work areas and amenity spaces, which should be reflected on the territorial chart of the business unit. The chart should be approved by the management of the contractor organization. The chart shall be an integral part of the activities management plan (AMP), work execution plan (WEP) or a similar document, developed by the contractor and approved by the owner of works. Responsibility for condition of the territory specified in the chart is assigned to the head of the contractor organization.

On the territory of the plant, it is **PROHIBITED to:**

- Burn production and consumer waste;
- Wash vehicles in areas not designated for this purpose;
- Pollute the open ground with petroleum products, petroleum and oil waste, acids, alkalis, paint and varnish materials, chemicals, condensate of coke, blast furnace and mixed gases, slurry pulp, cement slurry residues after the washing of concrete mixers;

- Dump production and consumer waste and dispose petroleum products, petroleum and oil waste, acids, alkalis, chemicals and paints into sewage systems, open water reservoirs and basins of cooling towers;
- Accumulate production and consumer waste at sites not covered by the Waste Generation and Disposal Targets (WGDT) or not coordinated with NLMK's Industrial Ecology Department;
- Overfill containers intended for temporary waste accumulation and clutter container sites;
- Clutter the territory of the plant with production and consumption wastes.

VII. REQUIREMENTS FOR WASTE TRANSPORTATION

Contractor organizations are obliged to transport their own waste with their own transport or outsource it.

The transportation of wastes must be carried out using specialized vehicles (waterproof body, tightly closed ramp, canvas cover, etc.), which prevents dusting, spillage and leaks.

General requirements for waste transportation:

- availability of hazard class 1-4 waste certificates;
- when carrying out works related to loading, transportation and unloading of waste, measures should be taken to prevent dusting, spillage and leaks.

The person responsible for waste management shall issue completed accompanying documents (slips, delivery notes, waste certificates) to the driver of sanitation vehicles when transporting waste to the disposal, landfill and neutralization facilities.

The driver of sanitation vehicle transporting the waste from the plant shall present the slip for waste transportation at the plant's checkpoints. Checkpoint inspector shall withdraw the slip for waste transportation from the driver.

At disposal, landfill and neutralization facility the driver shall receive a filled in return slip (unless otherwise agreed) and upon return to the business unit that has shipped the waste, shall pass it to the designated person. The transporting driver is prohibited from unloading the waste at facilities not specified in the accompanying documents (slips, delivery notes).

International reposition of waste is only possible with the permission of the Federal Service for Environmental, Technological, and Nuclear Supervision.

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