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LIELRĪGA REGIONAL ENVIRONMENTAL BOARD

Rūpniecības iela 23, Rīga, LV-1045, tel. 67084278, fax 67084244, e-mail: lielriga@lielriga.vvd.gov.lv, www.vvd.gov.lv

Category B polluting activity permit No RI15IB0058

Name of the merchant: Limited liability company “REF MINERALS”

Legal address: 15 Matrožu Street, Riga, LV-1048

Uniform registration number: 40003967205

Date of registration with the Register of Enterprises: 01.11.2011

Date of registration with the Commercial Register: 01.11.2011

Equipment, operator: SIA “REF MINERALS”

Address: 24/8 Gaujas Street, Vangaži, Inčukalns Municipality

Telephone number: 67509109

Electronic mail address: refminerals@refminerals.com

Territory code: 0801817

The type of the intended polluting activity pursuant to Annex 1 of Cabinet of Ministers Regulation No 1082 (20.11.2010) “Procedures by which Polluting Activities of Category A, B and C shall be Declared and Permits for the Performance of Category A and B Polluting Activities shall be Issued”:

Article 5.5 — equipment for the recovery of non-hazardous waste with a capacity of up to 75 tonnes per day for one or more of the following operations: preparation of waste for incineration or co-incineration; Article 5.10 — household waste sorting or short-term storage, including transfer stations with incoming capacity 30 tonnes of waste per day and more.

Date of receiving the permit application: 04.11.2015

Date of acceptance of the application for review and renewal: 11.07.2018

The permit has been issued for the current polluting activity

Date of issue: 07.12.2015

Place of issue: Riga

Date of review and renewal: 07.09.2018

Acting Director, Deputy Director

Head of Resources Control Unit

M.Mileika

THIS DOCUMENT HAS BEEN SIGNED ELECTRONICALLY WITH A SECURE
ELECTRONIC SIGNATURE AND CONTAINS A TIME STAMP

A decision on issuing the permit or terms and conditions of a permit can be contested at the Environment State Bureau within one month of its coming into force, by submitting an application to the State Environmental Service Lielrīga Regional Environmental Board, 23 Rūpniecības Street, Riga, LV-1045.

Section A

General information about the permit

1. Laws and regulations on the basis of which the permit is issued

Law "On Pollution";

Cabinet of Ministers Regulation No 1082 (30.11.2010) "Procedures by which Polluting Activities of Category A, B and C shall be Declared and Permits for the Performance of Category A and B Polluting Activities shall be Issued".

* references to laws and regulations justifying the conditions laid down in the permit are given in Section C of this permit.

2. Validity term of the permit and the term for submitting a new application

Permit No RI15IB0058 was issued on 07.12.2015 for the entire period of operation of the equipment concerned.

An application for revision and renewal of permit conditions shall be submitted to Lielrīga Regional Environmental Board of the State Environmental Service (hereinafter the Board):

- at least 60 days before significant changes in the polluting activity in accordance with Article 4 of Cabinet of Ministers Regulation No 1082 (30.11.2010) "Procedures by which Polluting Activities of Category A, B and C shall be Declared and Permits for the Performance of Category A and B Polluting Activities shall be Issued";
- within a month before changes to the polluting activity in case of finding the conditions provided for in Section 32 Paragraph three Clauses 1-4 or 8 of the Law on Pollution;
- before changes to the polluting activity in case of finding the conditions provided for in Section 32 Paragraph three Clause 3' of the Law on Pollution.

3. Information about the persons to whom the permit copies have been sent

- Environment State Bureau;
- Inčukalns Municipality Council;
- Health Inspectorate.

4. Reference to information of restricted availability

No information of restricted availability is included in the permit.

5. Other received permits and permits replaced by this permit

SIA "REF MINERALS" does not hold a permit that would be replaced by this permit.

SIA "REF MINERALS" received Category B polluting activity permit No RI15IB0058 at Gaujas iela 24/20, Vangaži, Inčukalns Municipality and it was revoked on 19.08.2015 because the company moved its location to Gaujas iela 24/8, Vangaži, Inčukalns Municipality.

Section B

Declared activity, assessment of application and substantiation of permit issue

6. Brief description of declared activity

In accordance with Article 62 of Cabinet of Ministers Regulation No 1082 (30.11.2010) "Procedures by which Polluting Activities of Category A, B and C shall be Declared and Permits for the Performance of Category A and B Polluting Activities shall be Issued", the

operator may propose renewal and revision of the conditions of the issued permit by submitting an appropriate application to the Board.

The application of SIA "REF MINERALS" for the permit for the performance of Category B polluting activity and for the renewal and review of the issued permit was developed by SIA "Geo Consultants" in accordance with the requirements of Regulation No 1082 (30.11.2010) "Procedures by which Polluting Activities of Category A, B and C shall be Declared and Permits for the Performance of Category A and B Polluting Activities shall be Issued".

On 11.05.2018, Initial Impact Assessment No RI18SI0042 was performed for the intended changes to the polluting activity, where it was decided not to apply the environmental impact assessment procedure for the activity declared by SIA "REF MINERALS" – crushing of recyclable and fire-resistant materials and waste, increasing the volume of the material to be processed to up to 20 000 t a year.

In accordance with Section 1 Clause 28 of the Law on Waste Management, SIA "REF MINERALS" is a waste recycling plant operator – an entity that manages a waste recovery facility and that has been granted a permit in accordance with laws and regulations regarding polluting activities of Category A or B. In accordance with the changes to the Law on Waste Management (07.12.2017), which took effect on 01.01.2018, SIA "REF MINERALS" by 30.12.2018 shall submit a financial security to the State Environmental Service in accordance with Section 12 Paragraph 1² of the Law on Waste Management and Article 37 of the Transitional Provisions of this Law and in accordance with the requirements of Cabinet of Ministers Regulation No 373 (26.06.2018) "Procedures for the Application of Financial Security for Waste Management Activities".

The requirement is put forth in section C of the permit.

SIA "REF MINERALS" performs the polluting activity at 24/8 Gaujas Street, Vangaži, Inčukalns Municipality. According to the application for changes in the permit, the company plans to increase its production capacity from 1752 t/year to 20 000 t/year by crushing waste of the following types:

- 101112 – glass waste that does not fall into class 101111;
- 101208 – ceramic articles, brick and tile construction material waste (after thermal processing);
- 120121 – other worn out metal processing equipment and materials that do not fall into class 120120;
- 161104 – insulation materials and refractory waste from metallurgy processes that do not fall into class 161103;
- 161106 – other (except metallurgy processes) insulation and refractory waste that do not fall into class 161105.

According to the application for changes in the permit, the company increases the amount of waste to be stored simultaneously for incoming waste flow in the territory from 20 to 3000 tonnes. The Activity Layout Scheme is attached as Annex 8 to the permit.

SIA "REF MINERALS" is engaged in the processing (crushing) of recycled fire-resistant materials and waste. SIA "REF MINERALS" works in the secondary raw materials market by purchasing various fire-resistant materials and waste (the material being processed is defined as "materials and waste") from industrial enterprises (glass fibre and glass product manufacturers, ceramic and metallurgical enterprises, etc.) in a number of places all over the world (around 45 countries), arranges for their crushing either in their recovery facility or in one of the contractor's recovery facilities and returns the recovered materials to the purchasers.

Materials and waste are mostly purchased in large blocks (1 m x 0.5 m), but producers of fire-resistant materials want to have the recovered materials in finer grains, therefore the blocks must be crushed into finer fractions. According to the application, the facilities at the

disposal of the company are capable of crushing materials and waste for secondary use in full scope, in good quality and in environmentally sound manner according to the requested fractions.

Primary crushing technology

In the territory of the company, a mobile primary jaw-type crushing machine BWM MMU 120T has been set up on waterproof pavement; this machine crushes blocks in finer fractions (0-150 mm in diameter) (emission source A1). The crusher is under the open sky. Crushing technology (primary crusher) in this machine is as follows:

- motor transport delivers large-sized material waste to the company's territory;
- the delivered materials and waste are stored in an open field in the company's territory on a water-resistant pavement or in big bags. If necessary, protective walls are made. At the same time, the maximum storage volume of materials and waste before processing can reach 3 000 tonnes in the area;
- materials and waste that are purchased from the factories that produce glass, glass items or glass fibre, have glass “deposits” on them (mainly comprised of SiO₂) therefore they must be pre-processed manually with hammers in a special closed tent in order to get rid of the glass coating (if necessary, angle grinding machines are used). The volume of the removed glass coat can reach up to 200 tonnes per year (waste class 010499);
- a front-end loader brings materials to the receiver hopper of the crushing equipment;
- crushing machine BWM MMU 120T crushes the materials into finer fractions (1-100 mm in diameter);
- the crushed materials and waste are put on two vibrating conveyor belts and transferred either to the storing facilities (boxes) and arranged in piles that are covered by roof or put into big bags and arranged on wooden pallets.

Since materials and waste to be recycled are delivered to the company only periodically, the mobile primary jaw type crusher operates on-demand. The crusher's capacity for the processing of specific materials is on average 35 tonnes per hour. To crush the planned volume of materials and waste - 20 000 t/year - the crusher will have a maximum operating time of 572 hours per year. Operating 8 h/day, the crusher will run 72 days a year.

Primary jaw type crusher runs on diesel fuel (diesel engine - emission source A3). Fuel tanks are filled on-site, on a waterproof pavement. Engine oil is changed by an outsourced specialised car service representatives on-site. In such cases, the used oils are taken away and managed by said service representatives. For daily maintenance of the crusher, oils in their original packages in small amounts are stored on site. Oils are stored in a hangar under a roof.

Once crushed in the primary crusher the waste needs to be crushed into finer fractions (3-6 mm; 1-3 mm; 0-3 mm; 0-1 mm in diameter). Secondary crushing of materials and waste takes place in the secondary fine fraction crusher (emission source A2). The crusher is located in the company's territory in a closed shed with a waterproof pavement, and it runs on electric power. The secondary fine fraction crusher is assembled from different equipment — unprocessed production hopper, jaw crusher, two sifters, one intermediary hopper, rotor crusher, several dust collectors, three finished product hoppers, magnet for metal separation. The principle diagram of the secondary fine fraction crusher is shown in the figure below.