SC GREEN OIL AND LUBES SRL

SEVESO NOTICE

a) Name and/or trade name of the economic operator and full address of the location in eau*

SC GREEN OIL AND LUBES SRL, Waste Oil Recycling Plant, Oltenita Municipality, Calarasi County

b) Head office of the operator, including its full name;

SC GREEN OIL AND LUBES SRL 2 A.P. Cehov Street, 1st District, Bucharest

c) Name and position of the person who is responsible for the site, if this is different from that stipulated in para a);

Project Manager: Daniela Coman,
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e-mail: daniela.coman@greenoilandlubes.eu

d) Safety data sheets:

Are attached to this notice

e) Quantity and physical form of the relevant dangerous substance or substances, as well as the storage capacities existing on site, expressed in tonnes:

Table no. 1: Chemicals used in the production process

Item no.	Product name/ dangerous substances stored	CAS no.	(67/548/EEC/99/45/EC) Classification	(1272/2008/EC) Classification	Storage location	Warehouse capacity (t)	Physical condition	Method of handling / Storage	Storage conditions
1	**Used Lube Oil**	70514-12-4	R66, R45, R52, R53	H227, H304, H350, H336, H315, H412	metal storage tank	5849	liquid	tank	4 metal tanks, capacity 1 x 107 m^3 and 3 x 1914 m^3
2	**Diesel/Light Oil**	64741-77-1	Not classified	H304	metal storage tank	718	liquid	tank	metal tank with double walls, above ground 1 x 473 m^3 and 1 x 245 m^3
3	**Middle Distillate**	64742-54-7	Not classified	Not available	Tank Condensed metal storage tank	1864	liquid	tank	two metal tanks above ground 1 x 930 m^3 and 1 x 934 m^3
4	**Heavy Distillate**	64741-76-0	Not classified	Not available	Condensed metal storage tank	1879	liquid	tank	two metal tanks above ground 1 x 945 m^3 and 1 x 934 m^3
5	**Heavy Lubricating**	8052-42-4	Not classified	Not available	tank	488	liquid	tank	2 tanks x 244 m^3
6	**Caustic Soda**	1310-73-2	R35	H314	Anti-corrosion tank	26.35	Liquid 32% conc.	tank	1 x 54.89 m^3 and 1 x 11 m^3
7	**Hydrogen**	1333-74-0	R12	H220 H280	Hydrotreatment facility	0.431	gas	Pressurized vessels, pipelines	Pressurized vessel

f) Proposed activity of the plant:

Technological process and effluents at each stage:

1. Dehydration

Dehydration is achieved by heating the waste oil in specialized equipment. This process results in 3,986 t/year of vapour, consisting of a mixture of steam and volatile components. Water is subsequently condensed and sent to the chemically impure water collection system. Volatile components are used as low calorific value gaseous fuel in the furnace of the plant or flared.

Input: 66,666 t/year of waste oil

Utilities: heat in the form of recirculated hot oil and cooling water

Products: 62,680 t/year of dehydrated waste oil, 3,986 t/year of wastewater

2. Separation of liquid fuel (diesel)

The installation consists of a vacuum evaporator. A quantity of 6,680 tonnes of fuel will be extracted from the waste oil. This will be used in the furnace, but will also supply the hydrotreatment facility.

Input: 62,680 t/year of dehydrated waste oil

Utilities: heat in the form of recirculated hot oil and cooling water

Products: 56,000 t/year of supply of film evaporator, 6,680 t/year of liquid fuel

3. Oil separation

The product at the basis of the fuel separator will supply the film evaporators (Falling Film Evaporator & Wiped Film Evaporator). Separation is done under vacuum.

The residue (bitumen) from the film evaporator, 9,320 t/year, will be sold as road pavement bitumen.

Input: 56,000 t/year

Utilities: heat in the form of recirculated hot oil and cooling water

Products: 46,680 t/year from the film evaporators, 9,320 t/year bitumen

4. Hydrotreatment

The oil recovered from film evaporators is treated with hydrogen in this plant to produce high quality base oil. The oils resulting from the evaporators are treated in the presence of a special catalyst at a temperature of 360° and pressure of 96 bar. The main resulting product is base oils. The sulfide present in the raw material is extracted as hydrogen sulfide (H_2 S). This will be extracted from the hydrogen stream by means of the amine plant. A part of the recirculated hydrogen stream will be burnt as fuel in the furnace, in order to maintain the desired concentration of light hydrocarbons.

Input: 46,680 t/year from the film evaporators, 3,624 t/year hydrogen

Utilities: heat in the form of recirculated hot oil and cooling water

Products: 45,624 t/year hydrotreated base oil, 680 t/year hydrogen-rich gas, used as fuel in the technological furnace

5. Final fractionation

Hydrotreated oil is fractionated in the vacuum distillation column in order to produce base oils of SN-150 or SN-500 grades. In the same fractionation column, light fractions are extracted in order to comply with the specifications of the products SN-150 and SN-500.

6. Hydrogenplant

The hydrogen required for the hydrotreatment plant is produced by water electrolysis. The oxygen produced will be released into the atmosphere.

Input: 4,285 t/year of demineralised water

Utilities: electricity, cooling water

Products: 360 t/year of hydrogen

7. Amine plant

The mixture of hydrogen-rich gas, produced in the hydrotreatment reactors also contains H_2 S. The gas is sent to the amine plant for the disposal of H_2 S. The mixture of hydrogen-rich gas thus filtrated is recirculated in the hydrotreatment plant, while H_2 S is burnt in the furnace or flared. The maximum quantity of (H_2 S) is 24 kg/h (192 t/year).

g) Data about the close proximity of the site, the factors which might cause a major accident or aggravate its consequences, including if available, details about the neighbouring sites, exploitation sites, even if they do not fall within the scope of the provisions of this law, area and developments which might be the source of a major accident or might increase the risk or aggravate the consequences of a major accident and of domino effects.

Due to the fact that the site is located in the flood plain, there is the risk that if a flood event occurs, it would cause a major accident or at least will be a factor of aggravation, especially the cross-border impact it might have in the context of its proximity to Bulgaria. In this regard, a hydrological study was carried out to determine the maximum level of water corresponding to the flow with probability of exceeding p=1%.

Based on the measurement carried out, the following conclusions have resulted:

- The results of the hydraulic calculations prove that the premises of the future is not endangered by the floods of Arges River, having flows with probability of exceeding p = 1% (wall of the dam on the left riverbank reported to Hmax1%Arges varying between 1.38 m ÷ 1.83 m on the area of the site of the future unit)
- Intersecting the numerical model of the land with the plan determined by the water level corresponding to the flow with probability of exceeding p= 1% on the Danube River (Q1% = 1,600 m³/s) and namely: Hmax1%Danube = 18.12 mdMN75 – resulting that the entire premises of the future unit can be flooded.
- As most of the elevations of the land inside the premises of the future site vary between 16.50 ÷ 17.00 mdMN75 – It results that during floods with probability of p = 1% on the Danube River, the land in question is under a water column varying between 1.12 ÷ 1.62 m.

The solution for protecting the premises of the future unit from the floods of the Danube River with the probability of exceeding p = 1% is the construction of a platform for raising the site of the plant above the flood rate.

Date of notice:
24.07.2018

Haris HANIF

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