

Annex No. 6

The Ministry of Health Care of the Republic of Lithuania Vilnius Public Health Center	IOK
SANITARY EXPERTISE REPORT OF DESIGNING DOCUMENTATION	Form No. 303/a

Date: May 28, 2002

No. 12-751

1.0 Designing documentation:	* 1.1. <input type="checkbox"/> Technical project	1.2. <input type="checkbox"/> Territory planning design	
1.3 <input type="checkbox"/> Construction project	1.3.1 <input type="checkbox"/> Newly developed structure	1.3.2 <input type="checkbox"/> Reconstruction, extension	
1.4 <input type="checkbox"/> Environmental design project	1.5 <input type="checkbox"/> Report of hydro-geological exploration	1.6 <input type="checkbox"/> Other design projects	
Please, specify: _____			
2.0 Designing phase:	2.1 <input type="checkbox"/> Concept	2.2 <input type="checkbox"/> Design project	2.3 <input type="checkbox"/> Working drawings

3.0 Name of company or object under expertise			
Environmental Impact Assessment Report for the Municipal Waste Landfill of Vilnius County			
Company code	<input type="text"/>	Code of economic activity	<input type="text"/>

4.0 Type of ownership of the company or object under expertise:	* 4.1 <input type="checkbox"/> State-owned	4.2 <input type="checkbox"/> State-held shares	
4.3 <input type="checkbox"/> Share holding	4.4 <input type="checkbox"/> Cooperative	4.5 <input type="checkbox"/> Individual	

5.0 Founder/ owner of the company or object (<i>title/ name and address</i>)			
Public Institution Waste Management Center of Vilnius County, 37, Gedimino St., Vilnius			

6.0 Construction/ operation site of the company or object under expertise (<i>address</i>)		Site in Kazokiskes/ site in Sirvintos	
Site code	<input type="text"/>	_____	

7.0 Documents produced to the experts for expertise			
7.1 Application			
7.2 Environmental Impact Assessment Report; text and drawings; annexes			
8.0 Design company (title and address)			
Baltijos Konsultacine Grupe UAB, 11, Gostauto St., Vilnius			

9.0 Legal or natural person supplying the documents for the expert appraisal (title/ name and address)			
Baltijos Konsultacine Grupe UAB, 11, Gostauto St., Vilnius			

Letter date: <u>May 6, 2002</u>	No. _____		

10.0 Documents received: <u>May 6, 2002</u>	Registration No. <u>3484</u>		

* Please, mark X with the right answer.

11.0. Description of the Documents in Consideration. Experts' Opinion and Suggestions

The Environmental Impact Assessment Report for the Municipal Waste Landfill of Vilnius County prepared by *Baltijos Konsultacine Grupe* UAB was presented for the present Sanitary Expert Appraisal.

The operation of the modern and up-to-date equipped Municipal Waste Landfill of Vilnius County is planned for 20 years (2004-2024), with the closure foreseen in 2025 and after-care phase of the landfill for 50 years. The Environmental Impact Assessment has been carried out for two sites planned for the given Landfill in Kazokiskes and Sirvintos.

1. Kazokiskes Site

This site is located 3.5 km from Vievis town. The landfill is planned in the place of former sand and gravel quarry, the operation of which has been terminated. Back in 1983, municipal waste of Elektrenai and Vievis were started to handle on the eastern part of the quarry. Presently the landfill has about 110,000 m³ waste collected. The nearest objects are: water treatment facilities of Vievis and Elektrenai towns, a farm with liquid slurry collection pools, oil base of Vilnius, fuel base of Vievis town and Vievio Paukstynas AB, the poultry firm. Neris Regional Park is located at 1.5 km.

At present, waste is collected inside the quarry pit, without any insulating layer of the bed or leachate collection system.

The following four landfill development phases are foreseen:

1. of construction and management of the existing landfill site;
2. period of regular Landfill operation;
3. Landfill closing period; and
4. after-care period of the Landfill.

The planned quantity of waste is 6.9 million tones throughout the entire operation period of the Landfill. Only waste handling is foreseen. Construction of 500 mm thickness compacted clay screen, 6 mm thickness concrete stone layer and 2 mm thickness polyethylene membrane layer is planned on the Landfill and filtering sand layer of 0.5 m height will be laid over the membrane. Inside this layer a drainage pipeline will be mounted.

The Landfill pile is planned consisting of 6 sections. The general pile area will be 27.1 ha, depth 14 m and altitude above the surface level will reach 30 m. Leachate from the Landfill will be treated by the Water Treatment Facilities of Vievis town. Foreseen leachate quantity is about 35-80 t. m³/m. The gas usage system is also planned. Surface waters will be let out to a pond, re-pumped to a control well and drained into the agricultural melioration trench. The surface water pollution will be continuously monitored.

Within the Landfill servicing area the following objects are planned: two car weighing machines, office building, canopy for equipment, workshop, storehouse, gas facilities, washing grounds, canopy for compactor, transformer substation, waste water pumping station and fire safety reservoir. Access road will be Vievis - Kazokiskes. Bypassing roads are planned around the Landfill and Aliesninkai village. The site will be enclosed with 2 m high fence. 500 m sanitary protection zone will be formed. Potable water will be supplied from Vievis town water supply system. The ground water has been found at the 14 m depth of the existing landfill. At present, the ground water is polluted with nitrites, ammonium and manganese. Watering-place of Vievis town is located 3.6 km southwards from the site. The lake Zelves is located 1.74 km westwards from the planned Landfill site, as well as the pond on the Aliosios rivulet and river Neris about 4 km from the site.

The population density is low with also low population number in vicinities nearby the Kazokiskes site.

2. Sirvintos Site

The land plot on which the construction of the landfill site is suggested is located about 30 km North West from Vilnius, and about 15 km from Sirvintos. The general site area is about 100 ha. Lauryniskes village is situated at 0.8 km westwards from the site and the nearest homestead is 0.5 km from the planned landfill site. This is the state-owned land and forestry area.

The following four landfill development phases are foreseen:

1. of construction of the Landfill site;
2. period of regular Landfill operation;
3. Landfill closing period; and
4. after-care period of the Landfill.

The planned quantity of waste is 6.9 million tones throughout the entire operation period of the Landfill. Only waste handling is foreseen. Construction of 500 mm width compacted clay screen, 6 mm width concrete stone layer and 2 mm high density polyethylene membrane layer is planned on the Landfill. 0.5 m filtering sand layer will be laid over the membrane. Inside this layer a drainage pipeline will be mounted.

The general pile area is foreseen 40 ha, 10 ha for the first section and 5 ha for other sections. The pile altitude above the surface level will reach 30 m. Leachate from the Landfill will be treated at the local Water Treatment Facilities. Cleaned waters will be let out into the pond, melioration trench and the Muse river. Surface waters will be let into circular melioration trench and drained into the Uolia rivulet and Muse river.

Within the Landfill servicing area the following objects are planned: two car weighing machines, office building, canopy for equipment, workshop, storehouse, gas facilities, washing grounds, canopy for compactor, transformer substation, waste water pumping station and fire safety reservoir.

The entire site will be enclosed with 2 m high fence. 500 m sanitary protection zone will be formed. Potable water will be supplied from a newly designed bore. The nearest surface waters are the following: the river Muse 550 m to the North, Ringes rivulet 660 m to the South-West, Uolia rivulet 200 m to the North and Paberzes pond 820 m to the South-East. The ground water has been found at the depth of 0.1-0.3 m. The territory is ascribed to the category of sensitive territories in the ecological – hydro-geological aspect. About 250-300 residents live within three kilometer span around the planned landfill territory. No population falls into the sanitary protection zone of the Landfill.

The monitoring systems are planned in both sites. Emergency situations cover the lack of the insulation layer, fire and blast danger.

After analyzing the Environmental Impact Assessment Report for the Municipal Waste Landfill of Vilnius County prepared by *Baltijos Konsultacine Grupe UAB* presented to our attention, we would like to express the following observations:

1. Detailed and declarative material has been collected and presented, although it lacks the forecasts on the impact on human health. No assessments have been made on possible time, how soon the pollutants in the ground waters or underground water flows will reach the watering-place of Vievis, for example, or larger water reservoirs through surface water flows.

2. No assessments of unpleasant odor, gnawer or insect impact have been presented. The Report lacks all possible emergency situation forecasts. Despite of modern technologies to be applied, pollution to melioration trenches and rivulets is possible.
3. No assessments have been found on the impact of incoming and outgoing transportation flows on human health and living conditions of the population.

In assessment of both sites in the sanitary aspect according to a number of criteria (500 m sanitary protection zone, no close population, terminated operation in a quarry with already functioning waste handling site, ground waters at 14 m depth, open water reservoirs located at a greater distance, water supply foreseen from the existing watering place in Vievis, fewer settlements on the way to the planned site, better condition of roads, etc.), we grant our approval to the variant of Kazokiskes landfill site.

This Expert Appraisal performed by:

/signature/ Jane Valaitiene, the Doctor – Environmentalist

/signature/ Stanislovas Tarbunas, the Deputy Director of the Institution

/stamp of the issuing institution/