



## YELSK DISTRICT



The district was founded on July 17, 1924 as a part of Mozyr okrug called Karolinsk that was renamed to Yelsk on February 05, 1931.

Yelsk district is located in the South of Gomel region within the Mozyr Polesye area, in the South it borders on the Ukraine (the length of the border is 85 km), in the North – with Mozyr district (the length of the border is 65 km), in the West – with Lelchitsy district (the length of the border is 36 km), in the East – with Narovlya district. The administrative and cultural and economic centre of the district is a town of district subordination Yelsk that is located in 367 km to the south of Minsk and in 170 km to the south-west of Gomel.

The area of the district makes 1360 km<sup>2</sup>. Its territory is crossed by the railway Kalinkovichi – Ovruch. Within the district there are two railway stations Yelsk and Slovechno and one railway stop Bogutichi. From the North to the South in 3 km from Yelsk there passes a international motorway Saint-Petersburg – Ismail (the length within the district is 23 km). Within the district there are also asphalted roads of the national significance: an access road to Yelsk of 3.5km; of the

regional significance: Yelsk-Makhnovichi, Slovechno-Valavsk-Stodolichi having the whole length of 123.4 km and the local significance length of 126 km.

The territory of the district is located mainly in the Mozyr Polesye and its central and south-eastern part is located in the Gomel Polesye. The highest point is 177.8m above sea-level. Minerals: peat, clay for crude and sand. There are observed oil ingresses. In the territory a source of mineral water was discovered. An average temperature in January is 6.2 C°, in July is 18.7 C°, an average quantity of precipitations makes 590 mm a year. In the southern part of the district there flows the river Slovechno (37 km within the district) with the inflows Cherten (28 km), Batyvlya (34 km), Yasnets (23 km), Zhelon (36 km), and in the North-East - Mytva (8.6 km) with the inflow Mlynok. The most full-flowing is the river Slovechno. There are soil-reclamation canals Belyakovsky, Budki, Vysoky, Vysoko-Makhnovichsky, Valavsky, Zashirsky. The largest storage ponds Kochishchi, Bobruyki, Mlynok. Soils are basically sod-podzol, waterlogged and peatbog. 63.02% of the territory of the district are covered by forest. The largest percentage of forest land is in the South-West. There are coniferous and birchen forests. Bogs are mainly low-lying and cover 16.9% of the territory and all of them are drained. The largest bog tracts are Gala and Peresechyonnoye.

The population consists of 21.1 thousand inhabitants. 10.3 thousand persons live in urban conditions and 10.8 thousand – in villages.

On 01.11.1995 there were 9 rural soviets in the district. After the accident at the Chernobyl NPP a part of the territory of the district was included in the resettlement zone. From 1986 to 1994 668 persons were resettled from 7 settlements in the territory of the district. The majority of the resettlers live in Yelsk.

**The settlements, the inhabitants were resettled from (on January 01, 1995)**

Valavsk village soviet: the villages Glazki and Shiya.

Kochishchi village soviet: the village Nekrashevka.

Mlynok village soviet: the village Osovy.

Skorodnoye village soviet: the villages Kuzmichi, Potapy and Shishki.

From 2001 to 2007 the WBC measurements were performed in the following settlements of Yelsk district: Bogutichi, Valavsk, Dobryn, the town Yelsk (boarding school), Zasintsy, Zashirye, Kochishchi, Krasny Pilshchik, Podgalya, Roza Lyuksemburg and Slovechno.

## Bogutichi

Index	Value	Data source
<sup>137</sup> Cs contamination density of the territory	7.15 Ci/km <sup>2</sup>	Dose Catalogue of the Ministry for Public Health Services of the Republic of Belarus 2004.
Number of inhabitants	331 persons	-----«-----
External dose	0.86 mSv/a	-----«-----
Internal dose	0.40 mSv/a	-----«-----
Cumulative dose	1.26 mSv/a	-----«-----

According to data dated to December 2002 the number of pupils in the Bogutichi basic school makes 38 persons, of teachers – 10 persons, other workers – 4 persons.

The dates of measurements: October 15, 2001 and December 20, 2002.

### October 15, 2001

The measurement of children in the Bogutichi basic school was performed in the sanatorium “Ozyerany”. A total of measured persons was 47 persons (40 children and 7 adults).

Average specific activity in the whole group (n = 40): 146.7 ± 20.4 Bq/kg.

Average specific activity in the critical group (n = 15): 286.3 ± 28.2 Bq/kg.

Median value in the whole group: 84.4 Bq/kg.

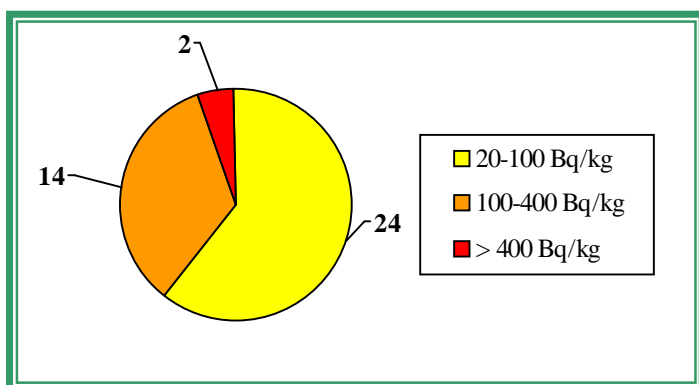
Median value in the critical group: 274.9 Bq/kg.

The table 1.1 demonstrates the maximal levels of <sup>137</sup>Cs specific activity (the critical group) according to the results of measurements dated to October 15, 2001.

Table 1.1

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	R.A.A.	SCHOOLBOY	M	25	1993	503.6
2.	B.D.V.	CHILD PRESCHOOL AGE	M	19	1997	482.0
3.	Ts.A.V.	SCHOOLBOY	M	29	1990	353.5
4.	K.O.N.	SCHOOLGIRL	F	20	1994	348.4
5.	K.M.S.	SCHOOLGIRL	F	51	1985	330.1
6.	I.N.A.	SCHOOLGIRL	F	31	1989	320.8
7.	I.S.A.	SCHOOLBOY	M	47	1987	289.2
8.	Kh.V.A.	SCHOOLBOY	M	31	1987	274.9
9.	Z.D.P.	SCHOOLBOY	M	32	1991	258.8
10.	Kh.A.A.	SCHOOLBOY	M	31	1989	255.8
11.	P.S.M.	SCHOOLBOY	M	41	1987	240.1
12.	Yu.M.Yu.	SCHOOLBOY	M	30	1990	188.0
13.	Z.A.P.	SCHOOLBOY	M	64	1986	162.1
14.	S.L.A.	SCHOOLGIRL	F	36	1989	148.0
15.	T.T.N.	SCHOOLGIRL	F	38	1987	139.7

The figure 1.1 contains the diagram of the interval <sup>137</sup>Cs specific activity distribution in pupils in the Bogutichi basic school of Yelsk district of Gomel region in accordance with the results of measurements dated to October 15, 2001.



←Figure 1.1 - Diagram of the interval <sup>137</sup>Cs specific activity distribution in pupils in the Bogutichi basic school of Yelsk district of Gomel region in accordance with the results of measurements dated to October 15, 2001

**December 20, 2002**

The measurement of children in the Bogutichi basic school was performed in the school building. A total of measured persons was 46 persons (34 children and 12 adults).

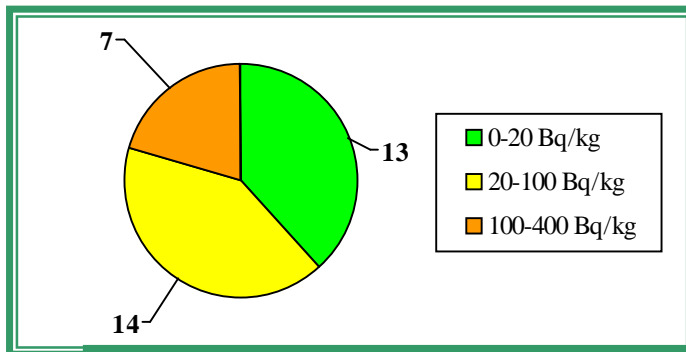
Average specific activity in the whole group (n = 34):  $51.8 \pm 10.4$  Bq/kg.  
 Average specific activity in the critical group (n = 15):  $97.9 \pm 17.3$  Bq/kg.  
 Median value in the whole group: 24.8 Bq/kg.  
 Median value in the critical group: 72.4 Bq/kg.

The table 1.1 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to December 20, 2002.

Table 1.2

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	S.R.V.	SCHOOLBOY	M	30	1990	205.4
2.	S.L.A.	SCHOOLGIRL	F	42	1989	200.2
3.	R.A.V.	SCHOOLBOY	M	31	1993	189.2
4.	K.O.N.	SCHOOLGIRL	F	23	1994	159.6
5.	S.F.V.	SCHOOLBOY	M	41	1988	148.3
6.	T.V.N.	SCHOOLBOY	M	53	1989	115.7
7.	T.T.N.	SCHOOLGIRL	F	42	1987	111.2
8.	R.V.V.	SCHOOLGIRL	F	40	1990	72.4
9.	S.E.V.	SCHOOLGIRL	F	22	1994	42.7
10.	I.S.A.	SCHOOLBOY	M	58	1987	40.1
11.	Ch.M.I.	SCHOOLBOY	M	32	1992	40.1
12.	S.B.G.	SCHOOLBOY	M	58	1988	37.9
13.	I.N.A.	SCHOOLGIRL	F	38	1989	37.1
14.	K.A.V.	SCHOOLGIRL	F	34	1992	35.3
15.	Sch.V.V.	SCHOOLBOY	M	43	1989	33.6

The figure 1.2 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in pupils in the Bogutichi basic school of Yelsk district of Gomel region in accordance with the results of measurements dated to December 20, 2002.



←Figure 1.2 - Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in pupils in the Bogutichi basic school of Yelsk district of Gomel region in accordance with the results of measurements dated to December 20, 2002

↓ Figure 1.3 - Dynamics of the average specific activity of  $^{137}\text{Cs}$  radionuclides in all measured children in the Bogutichi basic school two WBC measurements performed in 2001 and 2002

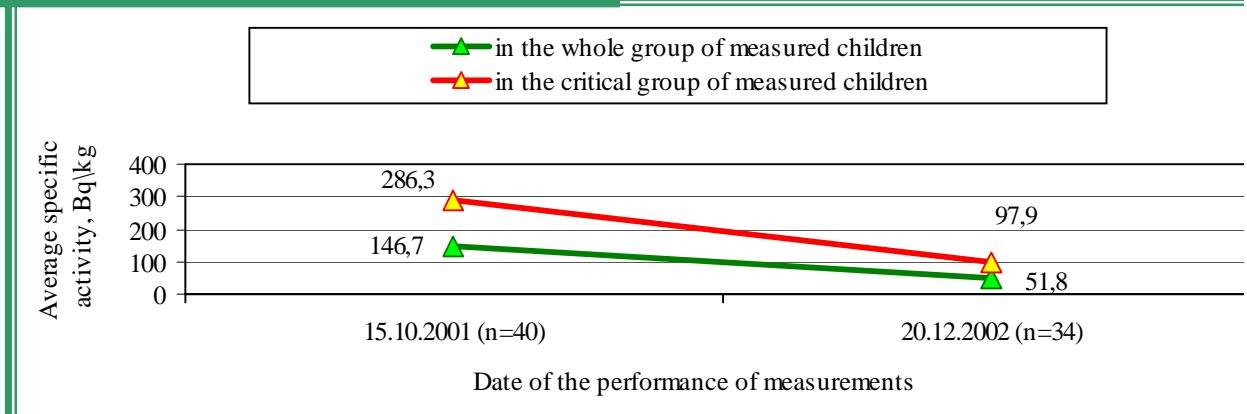


Figure 1.3 - Dynamics of the average specific activity of  $^{137}\text{Cs}$  radionuclides in all measured children in the Bogutichi basic school within two WBC measurements performed in 2001 and 2002.