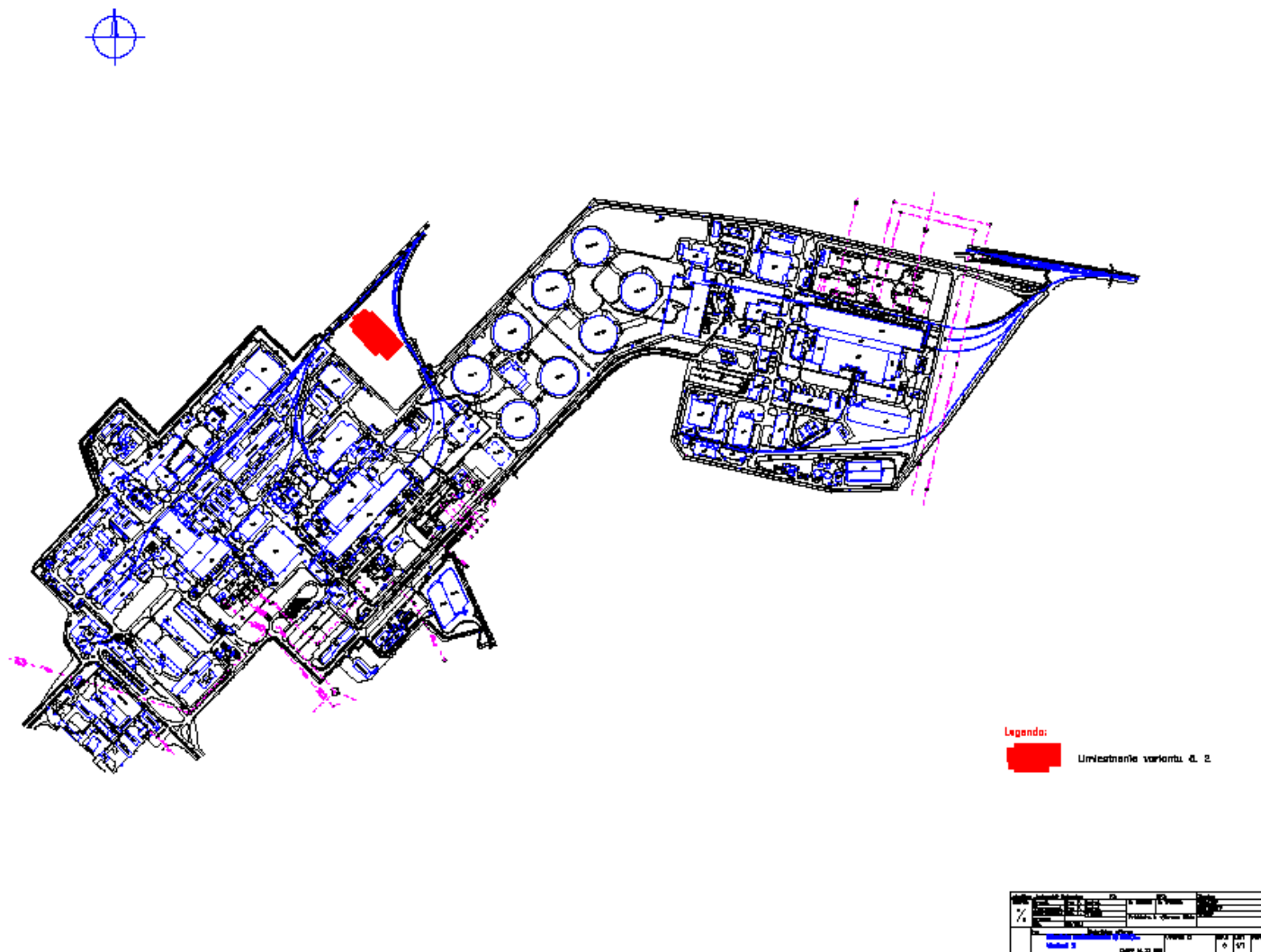


100

Umbauten variantu a. 1

[illegible]

Annex N° 2: Option 2 location nearby JAVYS, a.s. site Veľké Kostol'any cadastre area



Annex N° 3: Geographic location of nuclear facilities within Jaslovské Bohunice (scale 1: 50 000)

-  IS RAO - variant 1
-  IS RAO - variant 2



[illegible]

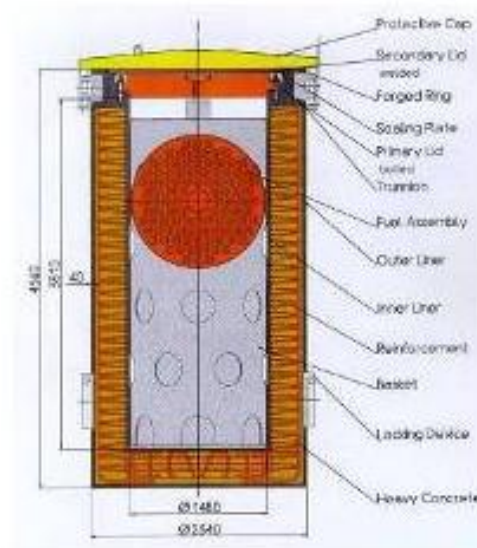
[illegible]

Annex N° 5/1: Examples of packaging units planned to be used for radioactive waste storage in the Interim storage of RAW

Shielded containers:

The container was developed with the aim to ensure for high safety level at very economic price; it may be produced in any country having the adequate industry. It comprise steel-concrete composition body with double sealing system. The double shell of the container comprise inner and outer steel made shell, and both shells are welded to one main body. The space between steel shells is filled with heavy concrete. Both seals (caps) may be securely bolted or welded.

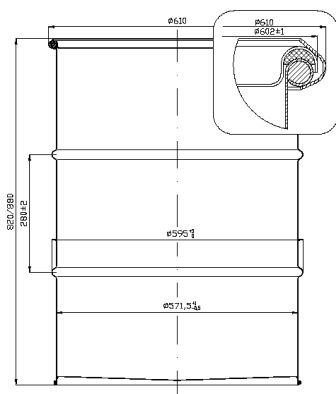
CONSTOR[®] containers as well as CASTOR[®] containers were heavily tested (fall, fire tests).



Annex N° 5/2: Examples of packaging units planned to be used for radioactive waste storage in the Interim storage of RAW



Transportation equipment - 200 dm³ barrel, MEVA, type 0488



Sud MEVA typ 0488

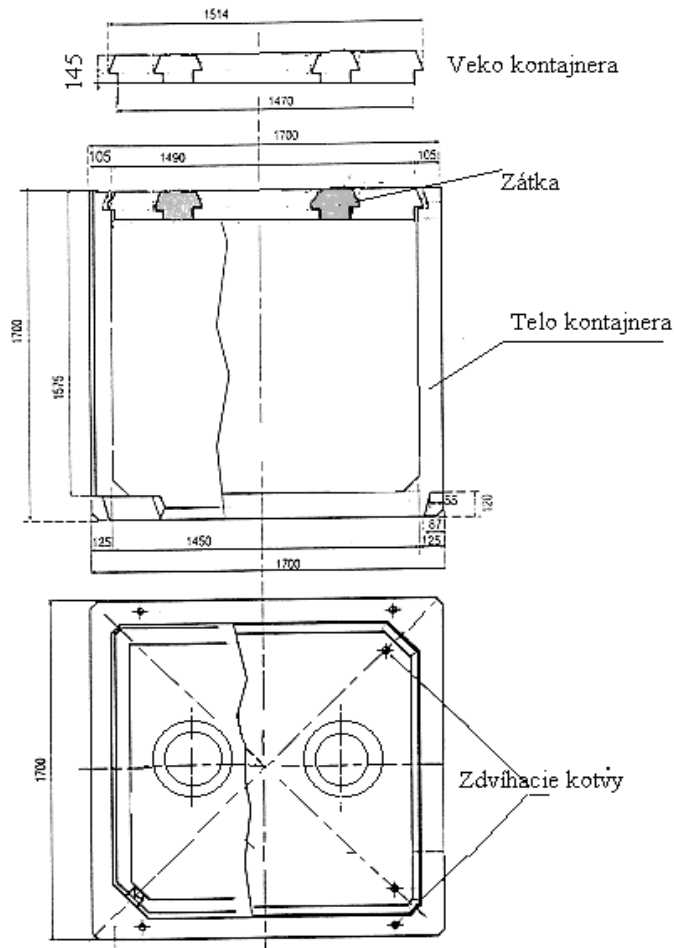
200 dm³ MEVA barrel, type 0488 is made of zinc coated 1,2 mm thick steel sheets, the body is welded and reinforced. Multiple safety joints are connecting the bottom and the body. Barrel label is embedded at the bottom. The lid is made of zinc coated 1,2 mm thick steel sheet, sealed to the body with rubber gasket and secured with a folding ring with lid and external lever. Barrels are transported in the upright position. Barrel loading capacity is appr 420 kg. The barrel was granted certificate as a packaging unit, its loading capacity, stocking and falling characteristics were tested. The package integrity was verified in testing.

Annex N° 5/3: Examples of packaging units planned to be used for radioactive waste storage in the Interim storage of RAW

Fibre-concrete containers

The container comprise : body of the container, lid of the container and two caps.

The basic components of the container are shown on the next picture



FCC is a packaging unit and transportation mean for RAW, cylindric shape with the below characteristics:

External size (without tolerances)

Height	H	:	1.70 m
Width	W	:	1.70 m
Length	L	:	1.70 m

Useful volume VU : ~ 3.00 m³

Maximum weight of full FCC shall not exceed 15 000 kg.

Annex N° 5/4: Examples of packaging units planned to be used for radioactive waste storage in the Interim storage of RAW

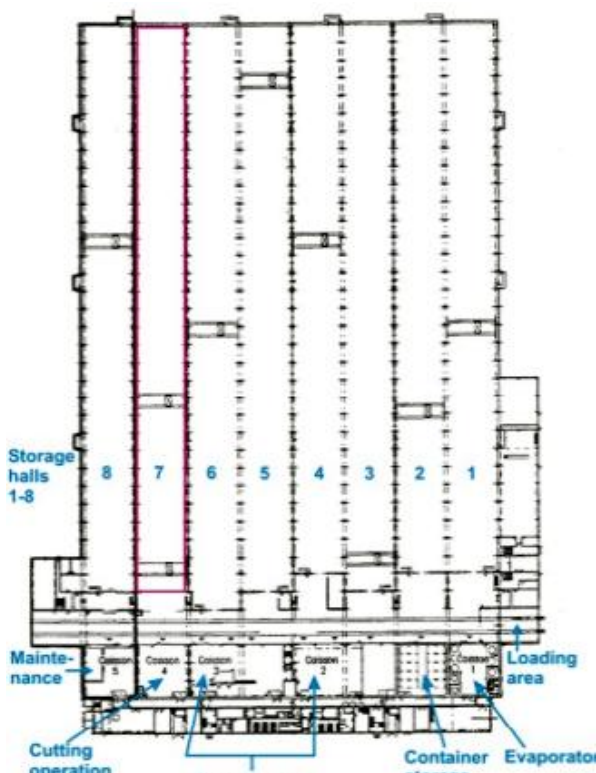
Shielded bulky component (pressure reactor vessel) transported to integral repository – picture taken during pressure vessel reactor transportation in Greifswald Germany.



Annex N° 6/: Interim storage Nord – Greifswald Germany



Overall view on Integral repository Nord EWN Germany



Layout Interim storage EWN Germany



Interim storage Nord- is for storing:

Storage of spent fuel

Interim and decay storage of radioactive material

Storage area: 20 000m²

Dimension: l 240m x w 140m x h 18m

Moduly 1-7 radioactive material:

-20' containers

-cast iron containers

-concrete containers

-steel containers

-casks (cast iron)

-large components

Hall 8 spent fuel in
CASTOR casks

Masses halls 1-7 approx. 110 000Mg

hall 8: 585Mg (heavy metal)

Annex N° 6-2: Interim storage Nord – Greifswald Germany



Bulky components stored inside the storage facility, steam generator storage



Stored ISO containers with radioactive waste and stored barrels

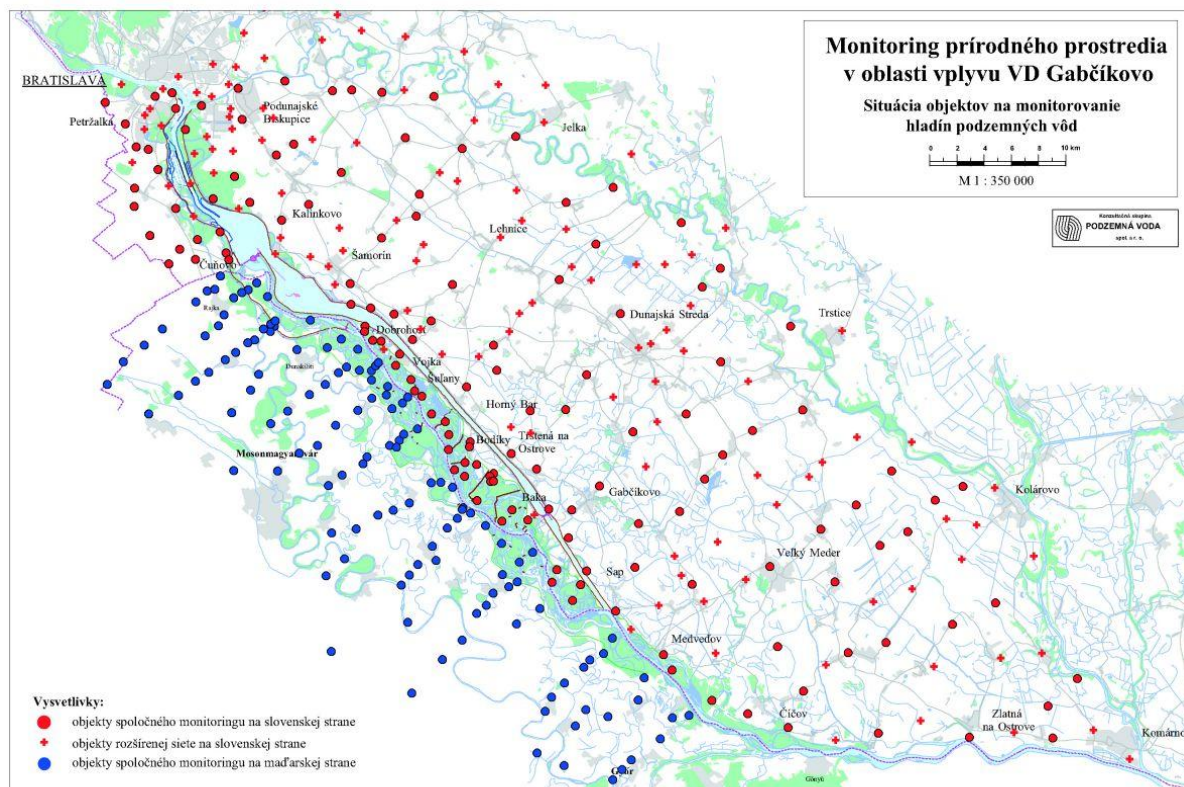


Handling bulky component inside the storage facility, pressure reactor vessel

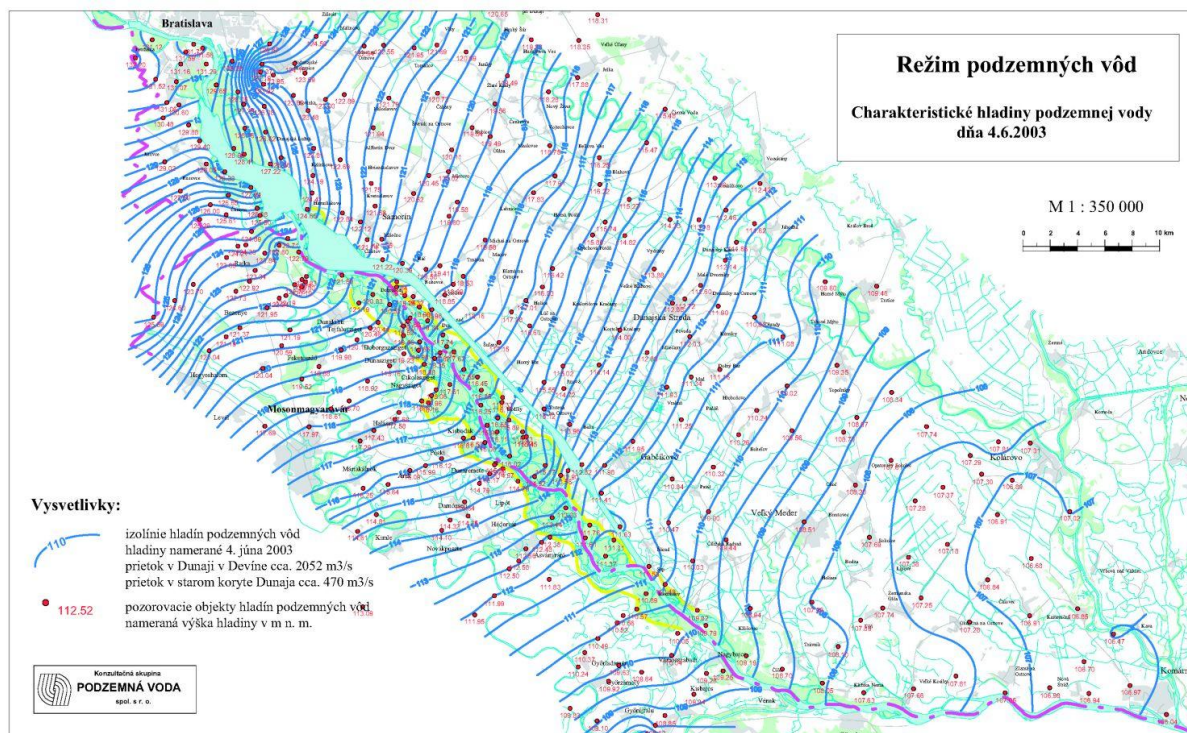


Highly shielded CASTOR containers in Module 8

Annex N° 7: Layout of underground water monitoring buildings within the area influenced by Gabčíkovo water dam, and typical levels map



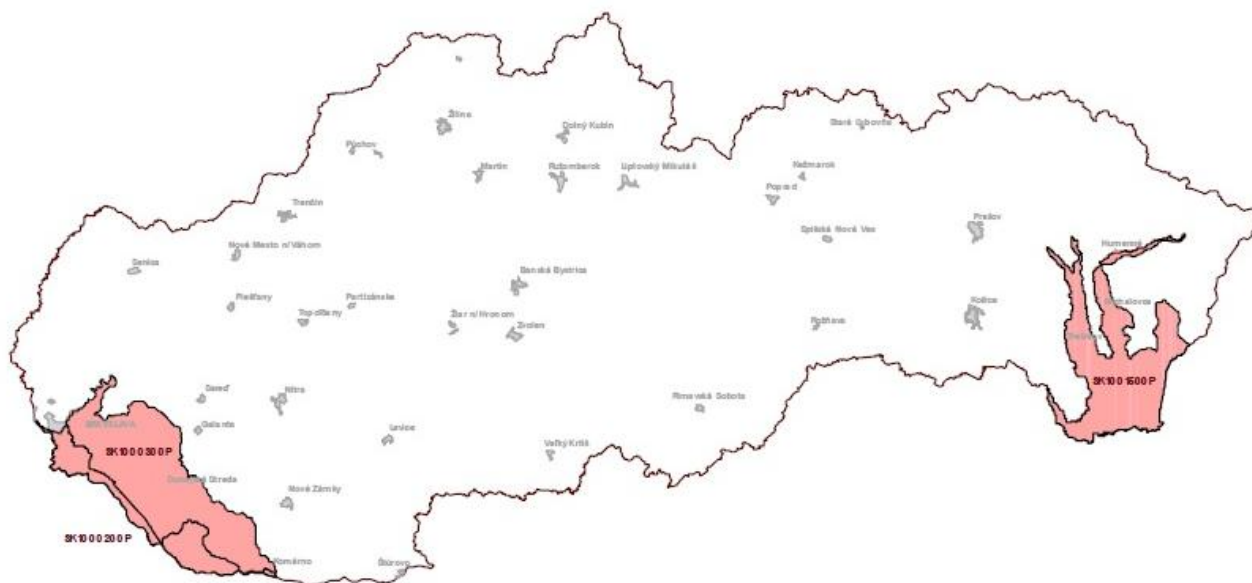
Obr. V.81 Situácia všetkých objektov na sledovanie hladín podzemných vôd v území ovplyvnenom VD Gabčíkovo



Obr. V.86 Charakteristické hladiny podzemnej vody v roku 2003

Annex N° 8: Transboundary underground water formations picture in the layer of quarterly formations of underground water and quarterly rock formations

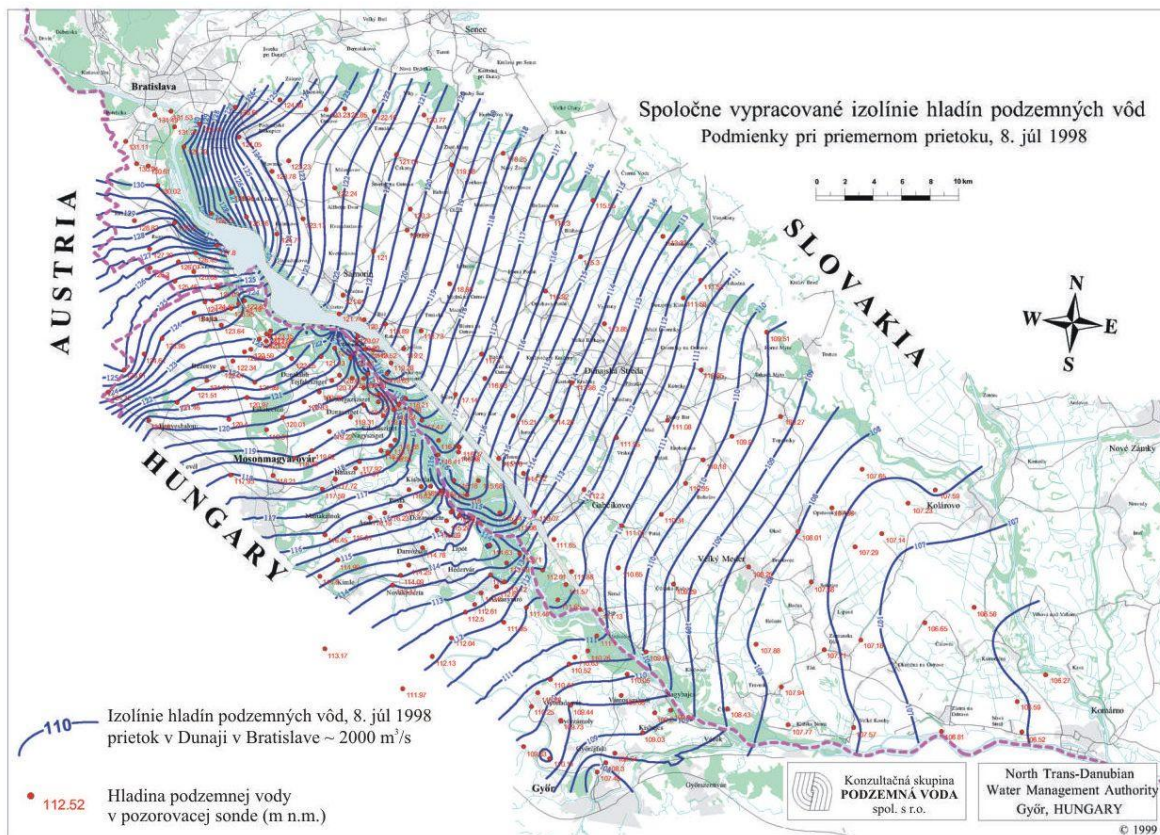
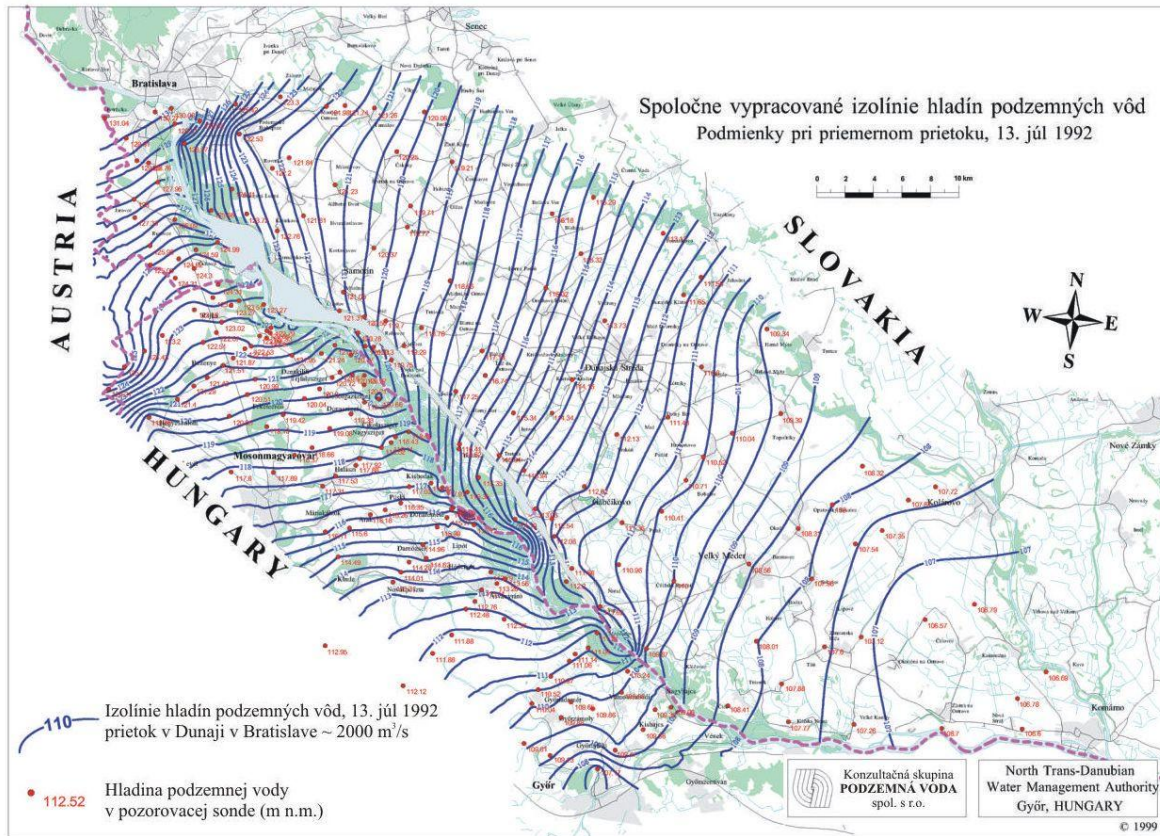
CEZHRANIČNÉ ÚTVARY PODZEMNÝCH VÔD VO VRSTVE KVARTÉRNÝCH ÚTVAROV PODZEMNÝCH VÔD



VYMEDZENIE ÚTVAROV PODZEMNÝCH VÔD NA SLOVENSKU V PREDKVARTÉRNÝCH HORNINÁCH



Annex N° 9: Picture of underground water surface iso-lines within the area influenced by Gabčíkovo water dam (prior and after water dam operation)

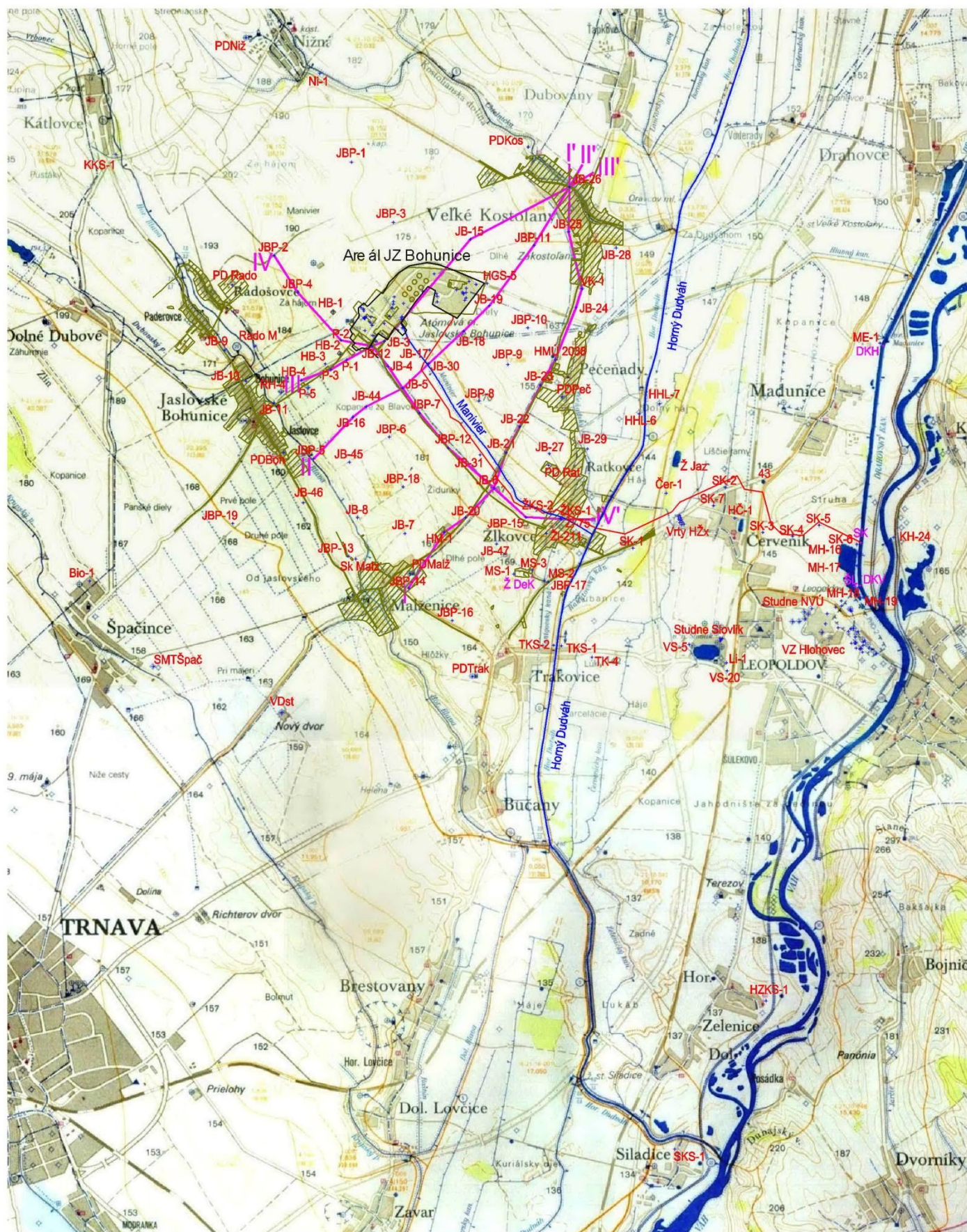


Obr. III.7 Izolínie hladín podzemných vôd pred a po uvedení vodného diela Gabčíkovo do prevádzky

Annex N° 10: Regular Underground Water Monitoring Programme for Bohunice Nuclear Facility Site and its Surroundings – valid for the year 2010

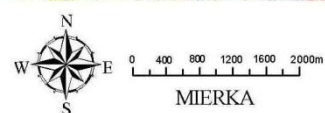
Program pravidelného monitorovania podzemných vôd pre lokalitu JZ Bohunice r. 2010										t1
Príloha k ZoD č. Pmpv/ 2010		Subsystém Monitorovaná lokalita	Objekty pre monitorovanie	Počet objektov	frekvencia	parametre	Monitorované objekty	Počet vzoriek - analýz alebo meraní		
JAVYS JEA-1		JAVYS JEA-1	Počet objektov v areáli JE A-1 spolu : JE-1, N-2, N-3, N-4, N-5, N-6, N-7, N-8, JHB-1, S6a, JB-1, JB-14A, JB-14, JB-14B, JB-32, JB-33, JB-34, JB-35, JB-36	19 +0	mesačne	³ H, hladina	N-1, N-2, N-3, N-4, N-5, N-6, N-7, N-8, JHB-1, S6a	10	10	10
					štvrťročne	³ H, hladina	JB-1, JB-14A, JB-14, JB-14B, JB-32, JB-33, JB-34, JB-35, JB-36	9	9	9
					ročne	³ H, FCh	N-1, N-3, N-4, N-8, JB-14B, JB-32, JB-33	7	7	7
					ročne	³ H, FCh	N-1, N-3, JB-14B, JB-32, JB-33	5	5	5
JAVYS MSVP		JAVYS MSVP	Počet objektov v areáli MSVP spolu : 0+0	0+0	ročne	³ H, FCh	S6a, JB-1, JB-14, JB-14A, JB-34, JB-35	7	7	7
					ročne	³ H, FCh	N-8, S6a, JB-1, JB-14, JB-14A, JB-34, JB-35	6	6	6
					ročne	³ H, FCh	N-1, JB-32, JB-33 + N-1, JB-14B, JB-32, JB-33	4	4	4
					ročne	³ H, FCh	N-1, JB-32, JB-33 + N-1, JB-14B, JB-32, JB-33	4	4	4
JAVYS JEV-1		JAVYS JEV-1	Počet objektov v areáli JE V-1 spolu : 12+2	12+2	mesačne	³ H, hladina	VRK-7, VRK-8, VRK-9A, VRK-9B, VRK-9C, PZ, EBO-1, JB-2, JB-13, JB-37, JB-42, JB-43, M-10, M-11	7	7	7
					štvrťročne	³ H, hladina	VRK-9B, VRK-9C, M-10, M-11, JB-48, JB-49, JB-50, JB-51, JB-52	10	10	10
					ročne	³ H, FCh	JB-43, JB-37, JB-48, JB-49, JB-50, JB-51, JB-52	7	7	7
					ročne	³ H, FCh	JB-43	4	4	4
SEBO JEV-2		SEBO JEV-2	Počet objektov v areáli JE V-2 spolu : 17+1	17+1	mesačne	³ H, hladina	VRK-13, VRK-8, VRK-9C, JB-2 (v sp., FCh)	4	4	4
					štvrťročne	³ H, hladina	VRK-82, JB-39, JB-40, JB-41 - štvrťročne	8	8	8
					ročne	³ H, hladina	VRK-82, JB-39, JB-40, JB-41 - štvrťročne	7	7	7
					ročne	³ H, hladina	VRK-82, JB-39, JB-40, JB-41 - štvrťročne	4	4	4
SEBO Okolie areálu JZ Bohunice		SEBO Okolie areálu JZ Bohunice	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	mesačne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					štvrťročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	4	4	4
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	3	3	3
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	9	9	9
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	8	8	8
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	10	10	10
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	8	8	8
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	9	9	9
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	8	8	8
Leopoldov		Leopoldov	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Leopoldov		Leopoldov	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Leopoldov		Leopoldov	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Leopoldov		Leopoldov	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Leopoldov		Leopoldov	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Leopoldov		Leopoldov	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Leopoldov		Leopoldov	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
Oblasť Dudvah		Oblasť Dudvah	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	1	1	1
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	5	5	5
					ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	11	11	11
SOCOMAN Drahovský kanál Váh		SOCOMAN Drahovský kanál Váh	Počet objektov v okolí JZ Bohunice spolu : 137 +25	137 +25	ročne	³ H, hladina	HB-1, HB-2, HB-3, HB-4 (pre JAVYS)	6	6	6
					ročne	³ H, hladina</				

Annex N° 11: Layout of objects for monitoring Bohunice nuclear facility site surroundings



LEGENDA:

- JB-7 -hydrogeologický vrt, studňa
- Ž Dek -miesto odberu z povrchového toku
- geologický rez
- trasa podzemného potrubného gravitačného odvádzajú odpadových vôd z EBO - SOKOMAN



Podkladová mapa je výrezom vodohospodárskych máp SR (1:50 000 - 35-31 Senica, 35-32 Piešťany, 35-33 Trnava, 35-34 Hlohovec) spracovaných do digitálnej formy.

LEGENDA

Ž

az

o

odberové miesta

■

povrchových vôd

S-6

čerpánia (nečerpaná)

+

studia

L-2

hydrogeologický

+

pozorovací vrt

+

hydrogeologický

⊕

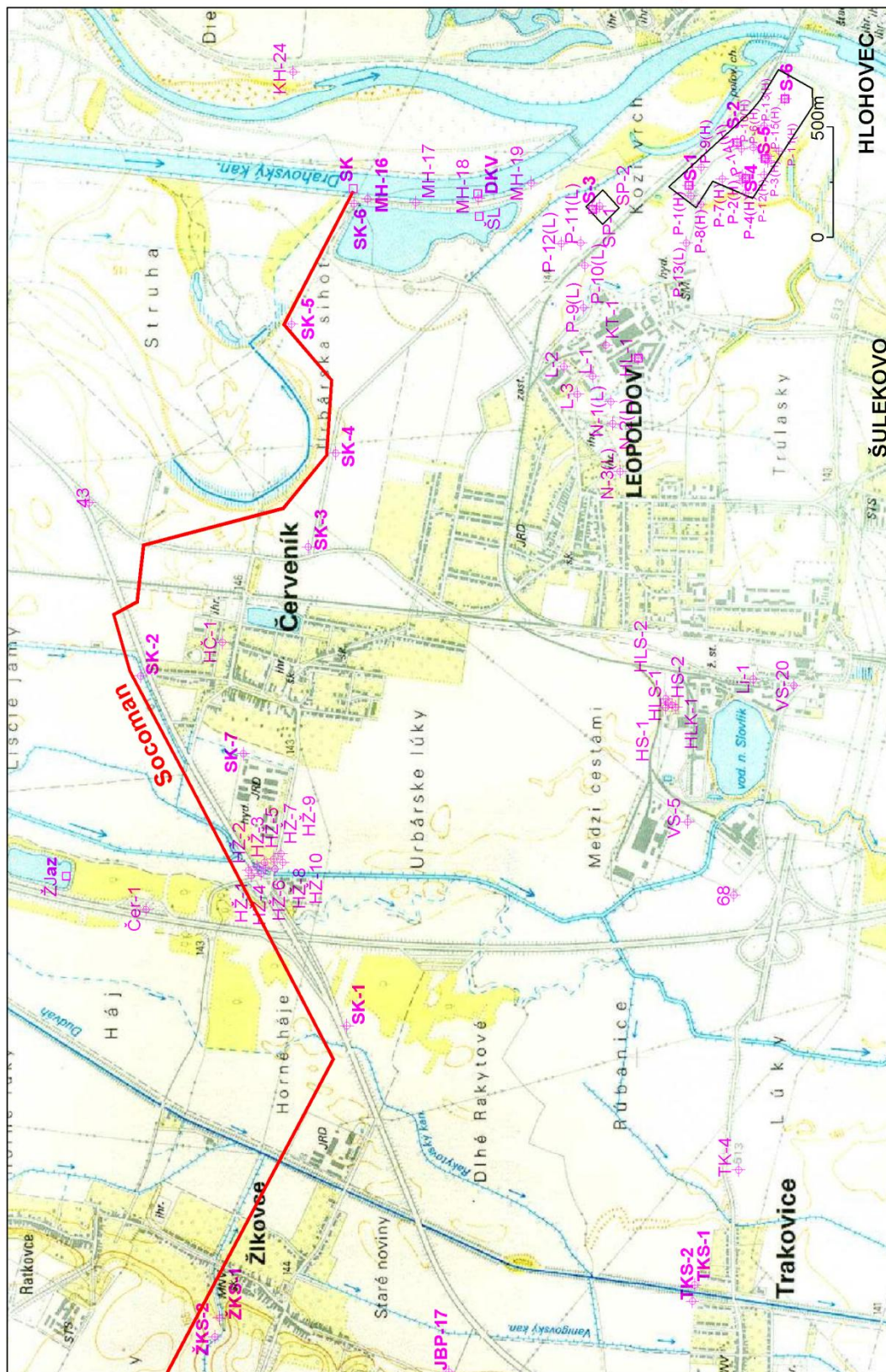
pozorovací vrt, v

—

databáze Geofundu

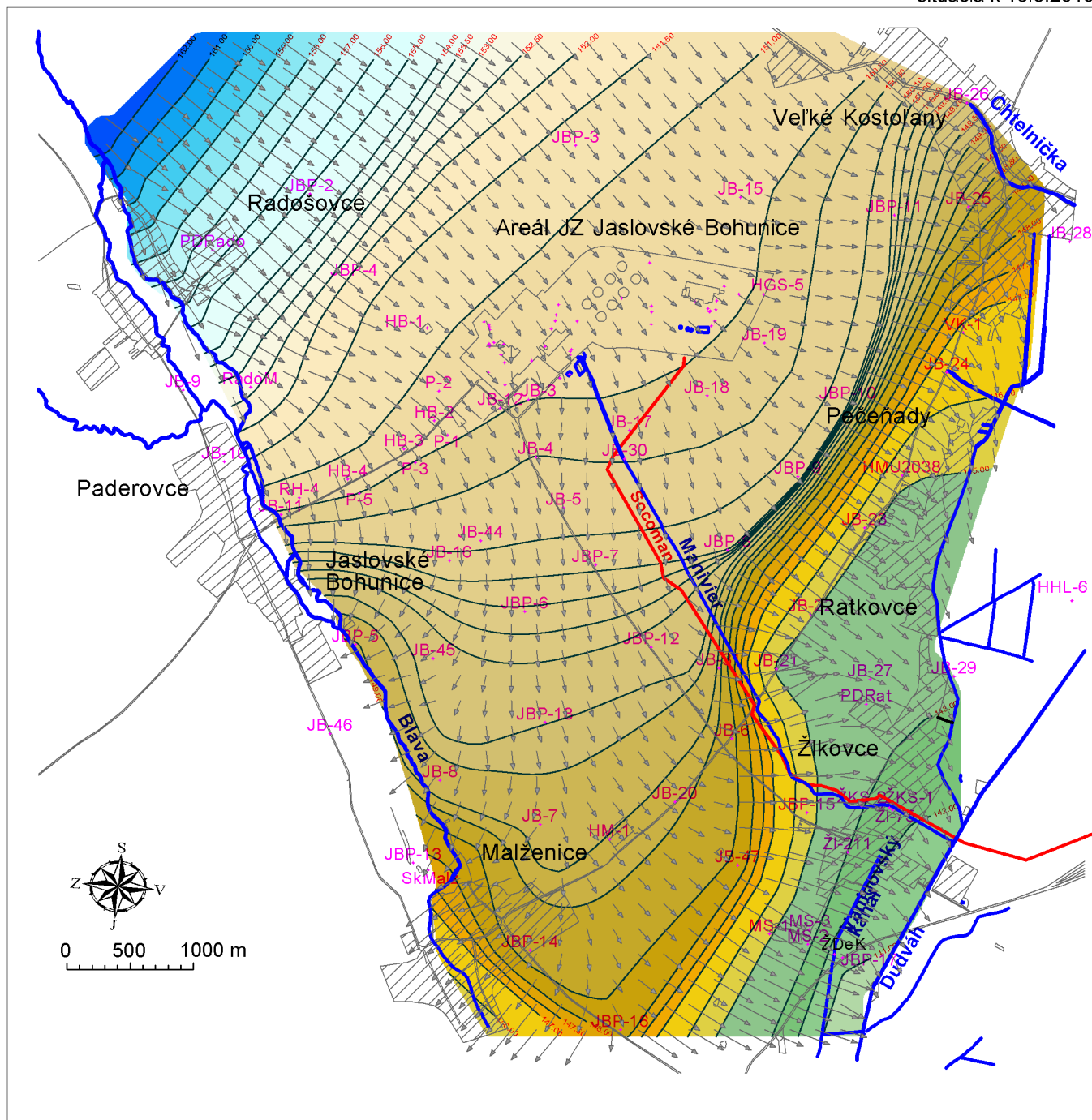
SOCOMAN

– odpadový kanál EBO



Annex N° 13: Bohunice nuclear facility site and the surroundings – hydro-geologic survey – underground water surface levels as of August 18th 2010

situácia k 18.8.2010



LEGENDA:

- 150.00** - nameraná hydroizohypsa hladiny podz. vód [m n.m.]
 → 1.70E-014 - smer prúdenia p.v. a gradient hladiny p.v.
 → 1.20E-002

- JB-3** - hydrogeologický vrt, studňa
 Ž DeK - miesto odberu z povrchového toku

Comments of the foreign relevant parties

Comments from the Austria

Statement of the Upper Austria state (Stellungnahme Land Oberösterreich)

1. The text of the requirement

Regarding the purpose of the intent it is required to describe in detail the measures of nuclear safety, the concept of storing and transport and inspection of the waste acceptance for disposal. Describe the inspection of the package forms during storing, in detail describe the package forms as in intent e.g. by means of technical drawings.

Fulfilment: *Incorporated into the chapter A II.8.1 – 5 „Brief description of the technical and technological solution“*

2. The text of the requirement

Required is the detailed description of the individual filtration systems of ventilation, the concept of contaminated waters handling and the electrical supply concept.

Fulfilment: *Assumption of the operation of the filtration equipment is stated in chapter A II.8.2 „ Technological solution “ detailed description is part of the design documentation.*

3. The text of the requirement

To demonstrate the unreality of the transboundary impacts on environment, describe the scenarios of the impact possibilities and the conditions of the environment.

Fulfilment: *The assessment of transboundary impacts is described in Chapter A II.16 „ Expression of the impacts of the proposed transboundary borders “and shown in v chapter. C III.18 „ Comprehensive assessment of expected impacts in terms of their relevance and their comparison with existing legislation “*

4. The text of the requirement

State the emergency scenarios to assess the impact of such events e.g. the fall of the aircraft, a strong explosion, large fires

Fulfilment: *Incorporated in chap. C III.19 „ Operational risks and their potential impact on the area (the possibility of accidents)“*

5. The text of the requirement

Add the type, quantity and composition of radioactive wastes which should be stored in an interim storage.

Fulfilment: *Incorporated in Chap. A II.8.5 „ Description of the radioactive waste and planned quantities stored in the interim storage of radioactive waste “*

Statement of the Vienna platform Atomkraftfrei (Stellungnahme Wiener Plattform „Atomkraftfrei“)

1. The text of the requirement

Given the purpose of the proposed facility it has been pointed to the possible danger of exceeding the total radioactivity of the interim storage in connection with short-term storing of RAW prior to its conditioning on RWTC (Radwaste Treatment Centre). They consider storing of such waste in contradiction to the purpose of the facility and ask the following questions.

- 1.1 How will be shielded the short-term storage from the long-term storage?(in what form)
- 1.2 How will be kept „ short-term storage “?
- 1.3 What does “short-term” exactly mean?
- 1.4 Is there the difference between the overall radioactivity of interim storage and maximum acceptable value?

Fulfilment: *The storing conditions are described in Chapter A II.2 „Purpose“ and II.8.5 „Description of radioactive waste and planned quantities stored in the interim storage of radioactive waste“*

2. The text of the requirement

What health measures and surveys are planned, respectively were performed by operators?

Fulfilment: *This question refers to the option No.3 (Mochovce site), which was based on the assessment scope assessed in the report. For the site Jaslovské Bohunice is the impact of the existing nuclear facilities assessed in chapter C III.1 „ Impact on the population “*

3. The text of the requirement

In what form will be the Austrian public informed about the possible dangers?

Fulfilment: *In accordance with applicable international agreements signed between Austria and the Slovak Republic.*

4. The text of the requirement

In the context of assessing the impact of external events the following questions are put:

- Of what kind are special safety precautions on the fence?
- **What kind of a control area it is?**
- What equipment is available to security forces if the large fire they is spread in the area?

- Are there mobile special forces, which could help for example, in an accident in connection with shipments of radioactive waste, fire fighting and decontamination?

Fulfilment: *Description of physical protection, control of nuclear facilities and fire protection is provided in chapter II.8.6 „technical and organizational means of fire protection and physical protection of interim storage of RAW“.*

5. The text of the requirement

In relation to accidents caused by operator, it contradicts the statement, that in case of package form, the radioactivity of gaseous discharges stated as limited shall not be exceeded. The following questions were raised:

- What limit values are assigned to the individual containers (package forms)?
- Which radionuclides with which radiation (alpha-, beta-, gamma radiation) are stored in the various package forms?
- Were taken into account the various half-lives of radionuclides?

Fulfilment: *The method of storing and control of the accepted package forms with RAW is stated in chapter A II.2 „Purpose“ and II.8.5 „Description of radioactive waste and planned quantities stored in the interim storage of radioactive waste“*

6. The text of the requirement

What are the advantages and disadvantages of e.g. coating of reactors (as possible zero option)?

Fulfilment: *For activity „V1 NPP Decommissioning“ was recommended immediate decommissioning option, in which was not considered „reactor coating“. The reason for erection of the Interim Storage of RAW is given in Chapter II.6 „Reason for placement in the given area“*

7. The text of the requirement

In connection with the consideration of the possibility of FCC disposal in 3 layers stacked on each other, the following doubts were raised in questions:

- a. How can be assured by this concept of storing the control and access to the lower containers?
- b. How can be found and possibly fixed leaks or damaged packages in the lower layers?

Fulfilment: *Performance is described in chapter A II.8.3 „The description of the operation“ and II.9 „Alternatives of the proposed activity“.*

8. The text of the requirement

With regard to decontamination works is raised the following the question: How big are the decontamination spaces according to concept and how they are equipped?

Fulfilment: *Performance is described in chapter A II.8.2 „technological solution“.*

9. The text of the requirement

In relation to the concerns about construction financing, operation and shutdown of Interim Storage of RAW are raised the following questions:

Is there a financial plan...

a. for routine inspection and possible recovery of all equipment?

b. for qualification and further training of staff personnel?

c. the control system against hackers, terrorist attacks and thefts?

d. for research and development works on new knowledge in waste management?

e. and finally decommissioning and shutdown of interim storage after the planned life of 70 years of operation?

Fulfilment: *Incorporated in Chap. A II.8.7 „ Financing of the operation and decommissioning of IS of RAW“, and II.8.6 – „technical and organizational means of fire protection and physical protection of IS of RAW “*

10. The text of the requirement

The storing hall could be in terms of the description expanded if needed. The scope of extensibility is not applicable. What extension is possible with the currently planned capacity of management and control units?

Fulfilment: *Description of the modular system is provided in chapter A II.8 „ brief description of the technical and technological solutions “.*

11. The text of the requirement

Unspoken yet important question is what happens to the stored materials after 70 years of the planned operation of the designed storing hall?

What measures will be taken for facility of the repository after 70 years with the remaining and still radiating material (e.g. cesium Cs 137), if such materials cannot be replaced to the repository?

Fulfilment: *Incorporated in Chap. A II.8.4 „ Procedure for disposing of radioactive waste after lifetime expiration of IS of RAW “*

12. The text of the requirement

Conclusion

Vienna platform Atomkraftfrei (excluding nuclear power) rejects from the reasons given above, the establishment of the interim storage for radioactive waste in the current planned form. We require answering the questions and amending the uncertainties and data.

Fulfilment: Questions which we were able to answer are incorporated in full scope of the report.

Statement of the Burgenland state (Stellungnahme Burgenland)

1. The text of the requirement

In particular, it will be necessary to describe in detail how to ensure the safety and protection of the environment over hundreds and thousands of years. This description should include the concept of isotopes extinction, which shall be stored.

Fulfilment: Incorporated in the chapter A II.8.4 „ Procedure for disposing of radioactive waste after lifetime expiration of IS of RAW “

2. The text of the requirement

Substantial seems also the type of financing of measures to be taken, concerning the lifetime of the storage and transfer of responsibility to future generations and provision of information on the status of filling and configuration of the storage.

Fulfilment: Incorporated in Chap. A II.8.7 „ Financing of the operation and decommissioning of IS of RAW “, and II.8.3 „ Description of operation“

3. The text of the requirement

To the intent of the interim storage for radioactive substances, the following questions were elaborated by special department:

- Is it secured, that storage shall be at the latest after the period of 70 years cancelled?
- How should be emptying of the storage after the period of 70 years performed?
- How will be the stored material handled?
- Will be for this purpose saved any financial means? (the cross financing of the territorial companies shall be excluded.)
- Is there any insurance for all options?

Fulfilment: Incorporated in Chap. A II.8.4 Procedure for disposing of radioactive waste after lifetime expiration of IS of RAW, chapter A II.8.7. „Financing of the operation and decommissioning of IS of RAW, insurance is provided in accordance with the Act no. 541/2004 Coll. on the Peaceful Use of Nuclear Energy (Atomic Act) and on amending certain laws, as amended

4. The text of the requirement

The report states on page 72 that the plane crash is an unlikely event. Because the potential consequences are very large, it is necessary to deal with this case. Also the cases of a similar nature as vandalism, terrorist acts, large fires should be taken into account.

Fulfilment: Incorporated in chap. C III.19 „ Operational risks and their potential impact“

5. The text of the requirement

How will the transfer of responsibilities including the provision of information on the state of fulfilment, organization, funding to the next generation proceed?

Fulfilment: *Incorporated in chap. A II.8.7 „ Financing of the operation and decommissioning of IS of RAW “ and in chapter A II.8.3 „Description of operation“.*

Statement of the organisation Wiener Umweltschaff (Stellungnahme Wiener Umweltschaff)

1. The text of the requirement

To finalize:

- solving large-scale fire events
- How is the insurance against theft of radioactive substances ensured, eventually of the packages with the radioactive substances

Fulfilment: *Incorporated in Chap. C III.19 „ Operational risks and their potential impact “ and A II.8.6 „ technical and organizational means of fire protection and physical protection of IS of RAW “*

Statement of the organisation of Österreichisches Ökologie Institut (Stellungnahme Österreichisches Ökologie Institut)

1. The text of the requirement

From the transboundary radioactive loads as a result of an accident in the planned interim storage, that could affect Austria, cannot be issued from.

The possibility of theft is extremely unlikely as a possible effect of conditioned waste of caused damages at greater distances is also negligible.

In principle, it is necessary to appreciate that JAVYS decided to store the waste with the lowest activity (VLLW - very low level radioactive waste) in the interim storage and not release it (e.g. for melting).

Additional technical measure that should be unconditionally accepted, is the proposal to mitigate the impact of operational events by filtration of exhaust air, which is discharged from the interim storage.

Fulfilment: *Fulfilment is described in chapter A II.8.2 „Technological solution“.*

Statement of the organisation of GLOBAL 2000 (Stellungnahme Global 2000)

1. The text of the requirement

Alternatives are not sufficiently developed.

Fulfilment: *Performance is described in Chapter A II.9 „ alternatives of the proposed activity “ and C V. „Comparison of alternatives“*

2. The text of the requirement

Zero alternative is sufficiently described.

Fulfilment: *Performance is described in Chapter A II.9 „ alternatives of the proposed activity “ and C V. „ Comparison of alternatives “*

3. The text of the requirement

Missing is the description of the consequences of possible failures, respectively accidents due to inadequate dimensioning (BDBA, Beyond Design-Base Accidents), in particular waste blowdown and penetration of radionuclides into groundwater, respectively in watercourses.

Fulfilment: *Incorporated in Chap. C III.19 Operational risks and their potential impact*

4. The text of the requirement

Duration of storage and financing.

It is unclear how long the duration of the storage operation will take. What happens to the interim storage if after 70 years in Slovakia will not be erected the repository? For how long can the operation of integral storage be extended? How is the financing secured? How is today (until SE/ENEL exists) ensured, that e.g. in the future, shall the one causing this state, fund the restoration of all containers in all cases mentioned above, after 30 years, after 70 years or even for 100 years?

Fulfilment: *Incorporated in Chap. A II.8.7. Financing of the operation and decommissioning of IS of RAW.*

Comments from Hungary

1. The text of the requirement

Waste with low and medium radioactivity waste with very low radioactivity must be placed so as to ensure the isolation of radioactive isotopes contained in the waste – which are dangerous to human, and potentially to environment – from the biosphere, as well as groundwater and surface water. Such protection must be ensured at all times, until the intensity of radiation decreases below harmful value to human health and the environment, ensuring the protection of present and future generations and the environment.

Fulfilment: *The description of RAW storage is given in chapter A II.8 „ brief description of the technical and technological solutions “,in Part C III. are evaluated environmental impacts.*

2. The text of the requirement

The planned storage of the radioactive waste is the surface building. The shortest distance from the border (air line between Bohunice and Dunakiliti) is 60 km. This distance is in terms of ground water large enough to provide protection in case of degradation of the insulation layers. Satisfactory answer to this question may provide a hydrodynamic modelling, which we believe **must be part of the EIA of the planned construction on the environment.**

Fulfilment: *groundwater monitoring is described in chapter VI. „ Proposed monitoring and post-project analysis “ and in chapter C II. 15.2 „ Water pollution“.*

3. The text of the requirement

It is necessary to prevent the radioactive water from the decontamination, or other potentially radioactively contaminated water to get into the surface waters of the Danube basin.

Fulfilment: *Incorporated in Chap. C II.15.2 „ Water pollution “ (a description of the control of the waters) and C III.5 „ Impacts on water conditions “.*

4. The text of the requirement

Water discharged into canalisation, potentially radioactively contaminated water must be continuously monitored in order to determine the contamination and its location as soon as possible.

Fulfilment: *Incorporated in Chap.C II. 15.2.2 „ Water pollution with radionuclides “ (a description of the control of discharges) a C III.5 „ Impacts on water conditions “.*

Preparation for emergency incident

On the Hungarian part of the river Danube bank are filtered wells. In the event of a radiological accident, the contamination in a short time can get into wells, threatening the drinking water and thereby public water supplies. With regard to surface water, the potential contamination leakages from the storage of Bohunice would penetrate into the rivers Váh and after overcoming a distance of approximately 93 km reach the Danube. After its leakage into the Danube may constitute a potential danger for the bank filtered water resources along the banks of the Danube in the areas of Dunaalmás, Tát, Ostriho and Dömös.

5. The text of the requirement

In order to effectively prevent from any possible accidents during the construction and operation of storage which might damage the surface waters in the Danube basin, it is necessary to develop an emergency plan.

Fulfilment: *Incorporated in Chap. C II. 15 „ Characteristics of existing sources of pollution - noise, vibration, radiation, and their impact on the environment “ a v kap. VI. „ Proposed monitoring and post-project analysis “*

6. The text of the requirement

Official informing of Hungarian authorities must be the part of the emergency plan in order to enable the operators of “by the bank filtered water sources” operated along the banks of Danube in potentially endangered geological environment, in case of contamination of the Danube, to prepare to take the necessary measures.

Fulfilment:

Incorporated in Chap. C III.5 „ Impacts on water conditions “ a C II.15.2 „ Water pollution’ “

Monitoring Plan

For radionuclides stored in interim storage or awaiting for disposal are particularly toxic and long-lived radioactive isotopes as follows: ⁹⁰Sr, ¹²⁹I, ²³⁹Pu, ¹³⁷Cs. **In event of an accident, these substances can get into the water ecosystem, so their effect will multiply and increase.**

7. The text of the requirement

We consider it important that not only that the insulating layer of radioactive waste storages shall meet all the requirements, but also to **monitor the standards and regulations conform to the European Union**, which in case of contamination, provided sufficient time to take effective action.

Fulfilment: *Incorporated in Chap. „ Proposed monitoring and post-project analysis “*

8. The text of the requirement

We propose that under the now well-functioning exchange of radiological data, also the data from the above monitoring will be sent to the Hungarian side.

Fulfilment: *This will be done in accordance with applicable legislation SR and international agreements*

Aspects of nature protection

9. The text of the requirement

Within 50 km radius of the impact of the proposed „Interim storage of radioactive waste“ belong also the territories which are within the Danube-Ipeľ national park established by the Ministry of Environment and Regional Development no. 34/1997. (XI. 20.) on *Establishment of Danube Ipeľ national park* protected (and in part strictly protected) areas of national importance; also included are special areas approved by Government Resolution no. 275/2004. (X. 8.) on *protected natural areas of European importance* and of the Ministry of Environment and Water Management no. 14/2010. (V. 11.) on *protected nature areas of European importance* called Börzsöny and Vyšehradské hory (HUDI10002), Ipeľské údolie with specially protected birdlife (HUDI10008) and protected natural areas of particular importance Börzsöny (HUDI20008) and Ipeľské údolie (HUDI20026) (Natura 2000). Into the impact zone

belongs the national ecological network stated in the appendix 3/1 of the Act XXVI/2003 National Land Use Plan and area of Ipeľského údolie, which has been legally declared XLII/1993 ***Convention on Wetlands of International Importance Especially as biotopes of as Waterfowl Habitat, which was signed on 2 February 1971 in Ramsar and its amendments, adopted on 3 December 1982 and from 28 May 3rd June 1987.*** Please make sure that the study of the environmental impact also indicates the possible effects of the above sites.

Fulfilment: *This requirement applies to the location at Mochovce, which was not evaluated in the report because it is not considered to situate Interim storage of RAW at Mochovce site.*