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50X1-HUM

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT [redacted]

CD NO.

COUNTRY Czechoslovakia

SUBJECT The Poldi Steel Works and Power Station at Kladno

PLACE ACQUIRED [redacted]

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SUPPLEMENT TO REPORT NO. 50X1-HUM

[redacted]

THIS IS UNEVALUATED INFORMATION

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1. The Poldi Steel Works at Kladno produce the following types of steel:

   a. AKV 1-5: Hardened steel which can be melted and recast.

   b. AKV B-D: Steel which cannot be melted and recast.

   c. Rapid: A special extra-hard steel for manufacturing drills, etc.

   d. Radekum: Flexible steel. 50X1-HUM

   e. Diadur: This is the hardest steel produced and is made from powdered steel which is compressed and heated until it fuses. The steel, which is reported to be only 8 percent less hard than a diamond, is used only for the points of drills for work on hard steel. It retains its durability at high temperatures and no cooling system is required. The process for producing Diadur steel is a highly complicated and secret one, not known even to [redacted] the Soviets. The steel seems to be similar to, if not identical with, a [redacted] tungsten-carbide product. 50X1-HUM

2. The power station at the Poldi Steel Works was built in 1943 by Ceskomoravska Kolben-Danek (CKD). An addition to the power station, which is now under construction, is to be identical with the original station; the construction is being done by CKD under Chief Construction Ing. Pavlik. The station is to be a turbo-generator power station, with a capacity of 20,000 kwh per day. The water supply, which is plentiful, comes directly from Karany.

3. The Kladno power station supplies the Poldi Steel Works and Slany.

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4. Disorders occur mainly in the pipes, and there are frequent failures in the steam and water supplies. The ventilators and the turbo-generators are the vulnerable points in the station.

5. The power station is laid out as follows:

a. Basement, with a reservoir of treated water at 2-3 atm. [illegible]°C

Temperature of raw water:		8°C
Temperature of soft [illegible]		
Intake of raw water:	morning	7 T/h
	afternoon	6 T/h
	night	5 T/h

b. Mezzanine

Waste reservoir	68°C, 2 atm.
Waste expander	68°C

c. First Floor

Small steam distributor	5 atm.
Heaters for evaporators	120 - 125°C, 5 atm.
Evaporators I, II, III, IV:	
Steam	120 - 125°C, 5 atm.
Water	80 - 85°C
Steam drawer for boilers	2,000 atm/min
Large steam distributor	5 atm.

d. First Extension:

I	going in 65°C going out 96°C
II	going in 96°C going out 99°C
III	not working

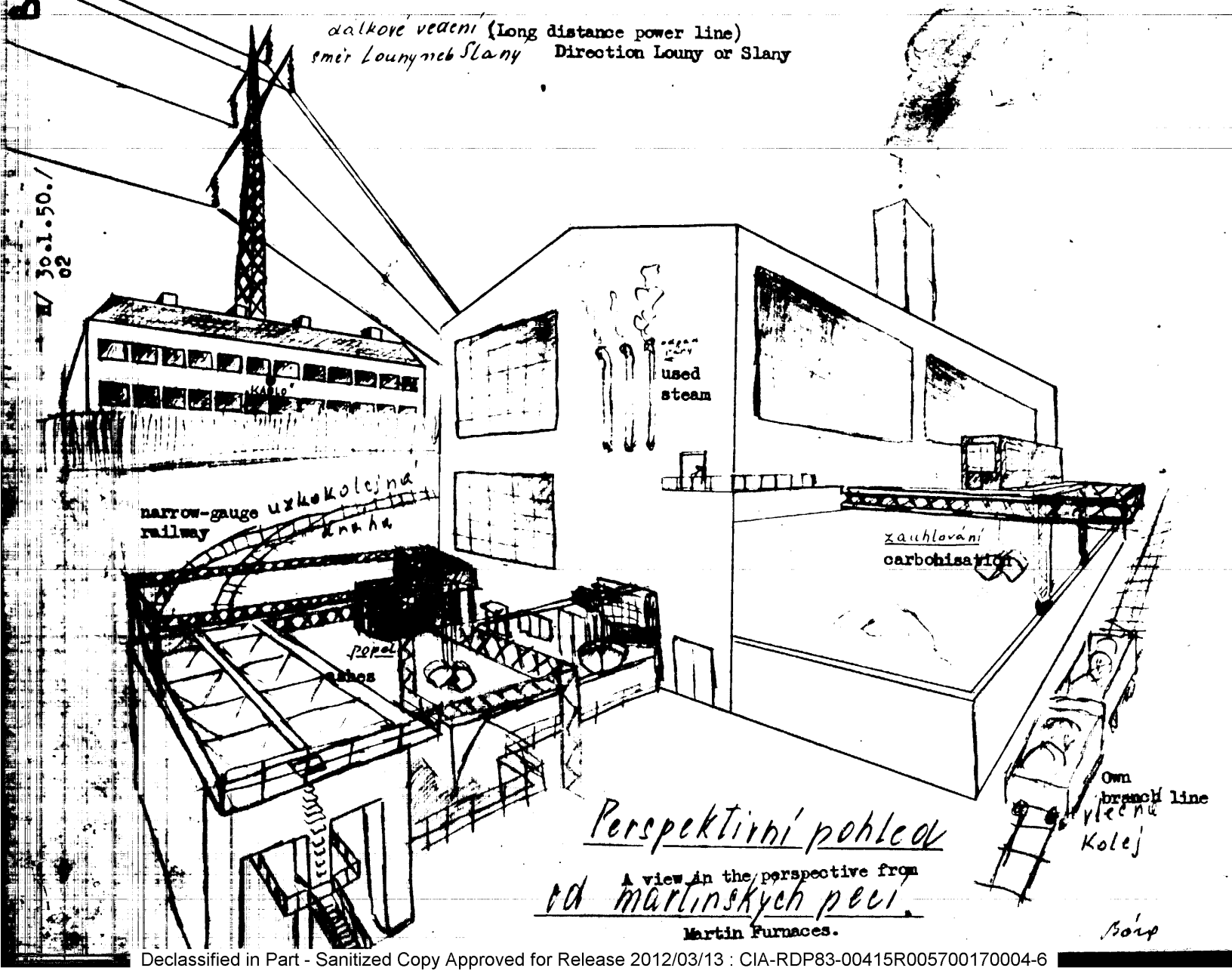
e. Second Extension:

Small reservoir of treated water	115°C, 2, 5 - 3 atm.

f. Third Extension:

Large reservoir of treated water for boilers	138°C, 15 atm.
Control valve of main steam supply for the turbo-generator:	400°C, 60 atm.

Attachments: 12 photostats of the Poldi Steel Works power station and installations.*

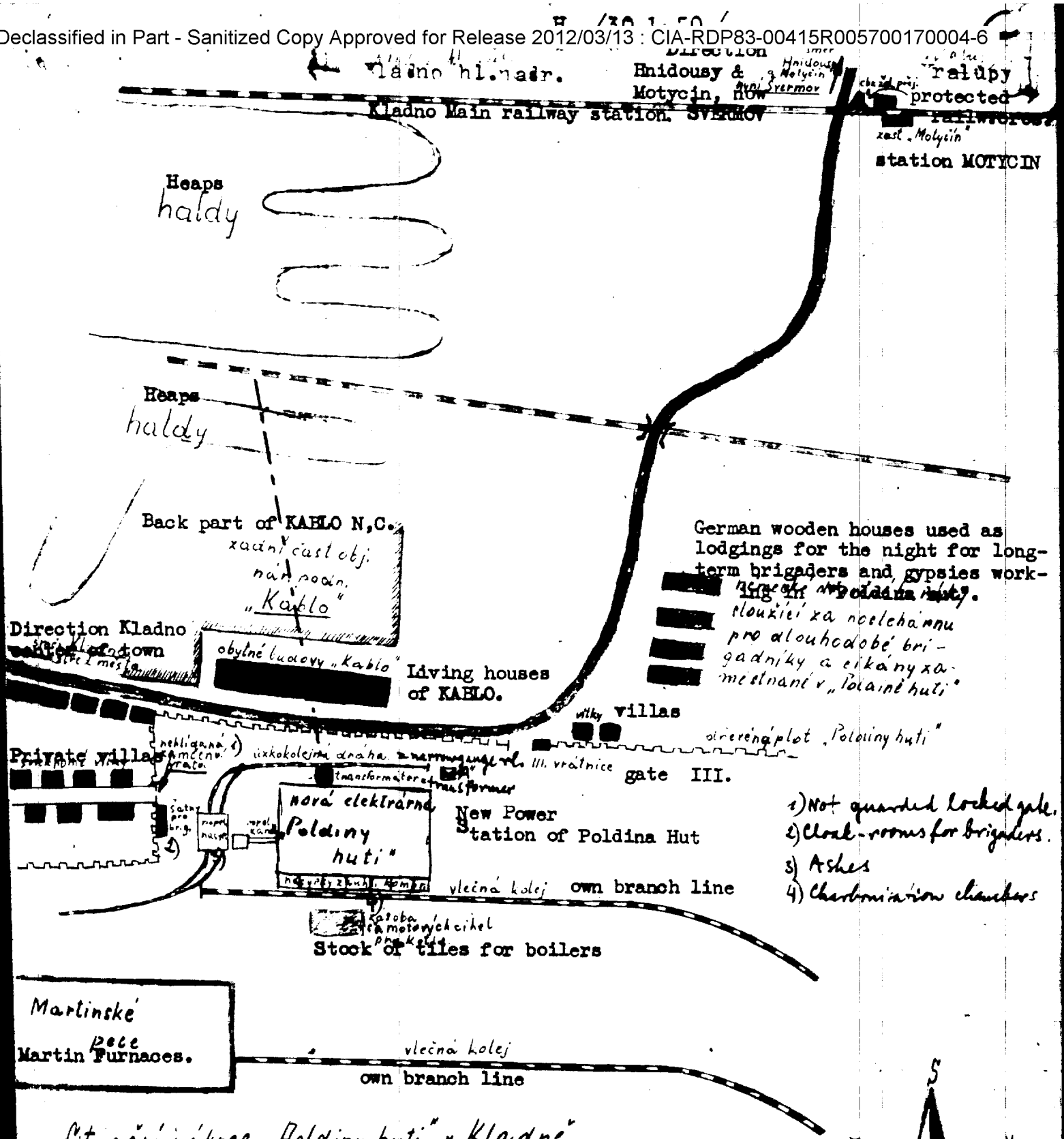


Perspektivní pohled

A view in the perspective from

od martinských pecí.

Martin Furnaces.



1) Not guarded locked gate.
2) Cloak-rooms for brigaders.
3) Ashes
4) Charbomization chambers

Situační nákres „Poldiny huti" v Kladně.
Situation Sketch of Poldina Hut at Kladno.
Pozor! Náčrtek nepřesný; silnici nutno opravit podle mapy.
Attention: Sketch is not precise; the road is to be corrected according to a plan map.
Cesta z motyčínské zastávky trvá asi 10 minut.
A trip from Motycin station takes about 10 min.
"A" = Ventily hlavního přívodu vody pro elektrárnu z Káraného.
"A" = Ventiles of the main water supply for the Power Station (from Karany)
– – – – Dálkové elektrické vedení (vrchem) směr Louny nebo Slaný.

Bílý

1)

Situační nákres nové elektrárny Poldiny huti v Kladně.

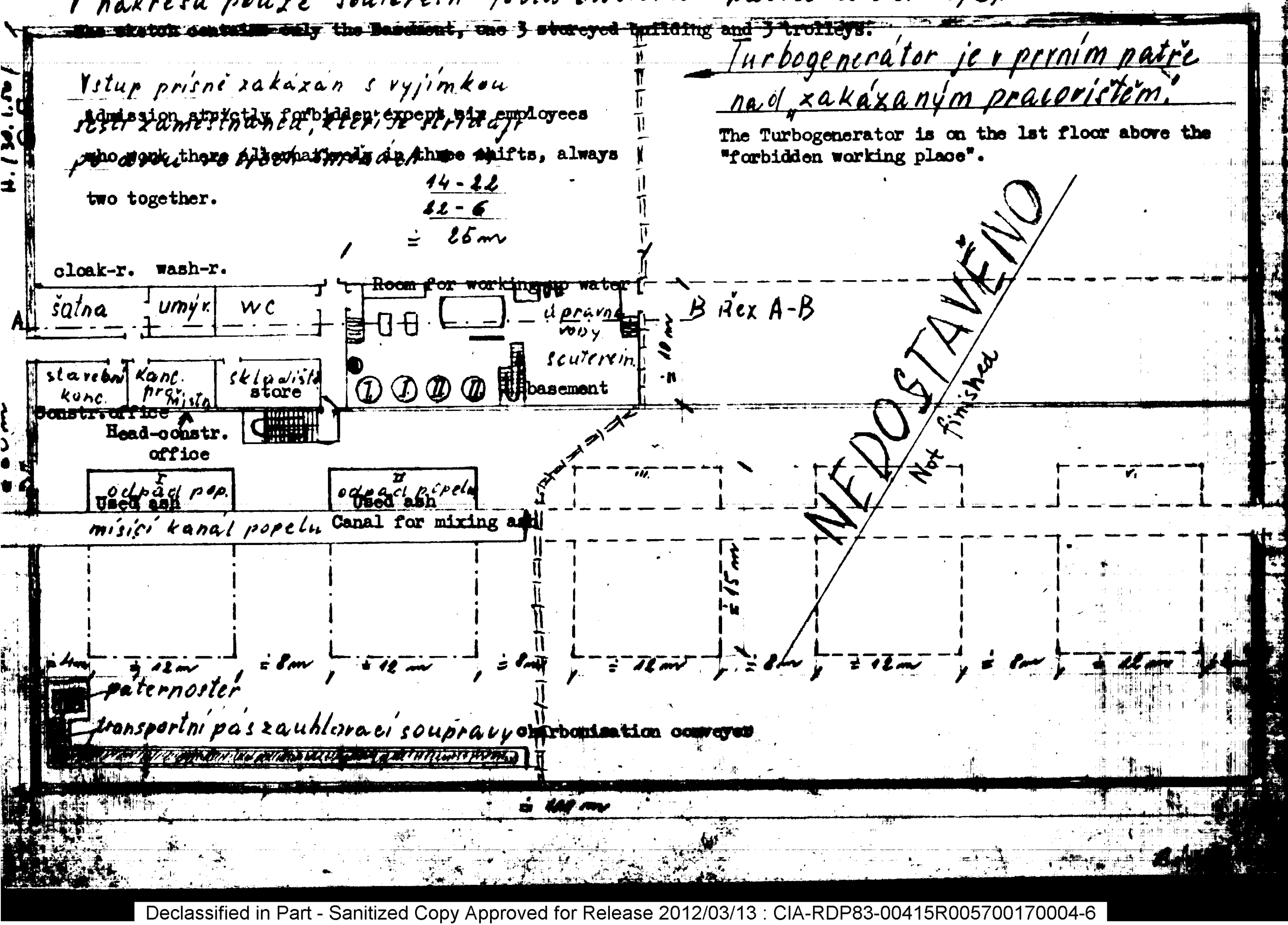
Situation plan of the new Power Station at Poldina Hut in Kladno.

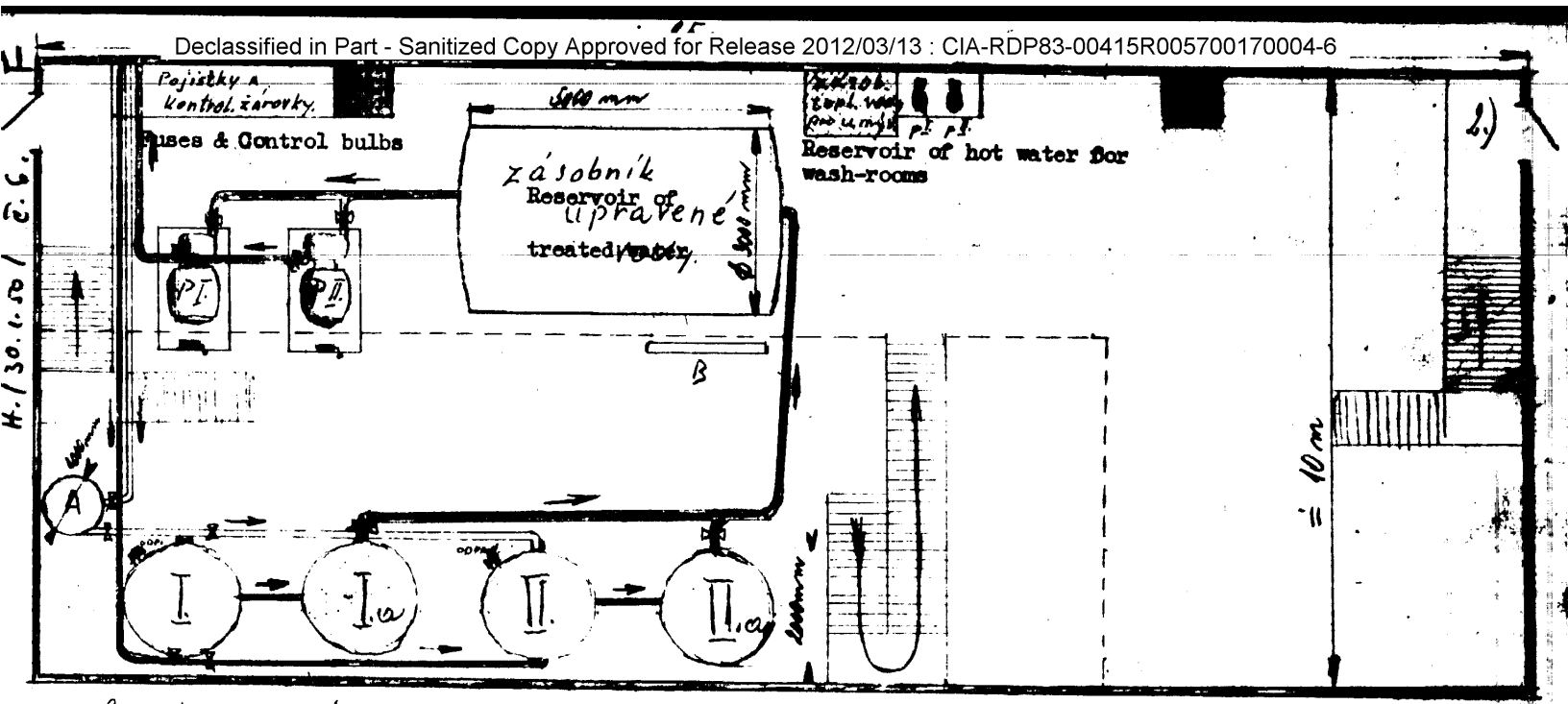
/polovina nedostavěna, druhá polovina v provozu/. 1 cm = 4 m

(half of it not yet finished, another half already working)

V nákresu pouze suterein /této budova 3 patra a 3 troleye/.

~~The station contains only the Basement, the 3 storeyed building and 3 trolleys.~~


Vstup přísně zakázán s vyjímkou šesti zaměstnanců, kteří se střídají po dvou ve třech směnách
Admission strictly forbidden except six employees who work there alternatively in three shifts, always two together.
14 - 22
22 - 6
= 25 m
Turbogenerátor je v prvním patře nad „zakázaným pracovištěm."
The Turbogenerator is on the 1st floor above the "forbidden working place".
cloak-r. wash-r.
šatna
umýv.
WC
Room for working up water
úpravna vody
suterein
basement
B řez A-B
A
10 m
stavební konc.
Constr. office
Kanc. prac. místa
Head-constr. office
skladiště
store
NEDOSTAVĚNO
Not finished
odpad pop.
Used ash
odpad popela
Used ash
mísicí kanál popelu
Canal for mixing ash
= 15 m
= 12 m
= 8 m
paternoster
transportní pás zauhlovací soupravy
Carbonisation conveyer
= 140 m



Souterein úpravny vody. Měřítko 1:100 = 1cm = 1m

Basement of the room for working-up water Scale: 1:100 = 1cm = 1 m

M ventily na potrubí = ventiles in pipes

A = regenerační nádrž = regener.reservoir

B = kontrolní deska = control plate

PI - PII. = přečerpací pumpy upr. vody Re-drewing pumps of treated w.

pI a pII. = pumpy teplé vody pro umyvárnu. Pumps of hot water for wash-rooms.

- - - - - šárkovaně ohraničený prostor (jemně šrafovaný) je půdorysem I. patra Hachure = ground-plane of 1st floor

I. + II. permutitové filtry surové vody. Permutit filters of raw water.

Ia + IIa. pískové filtry měkké vody. Sand filters of soft water.

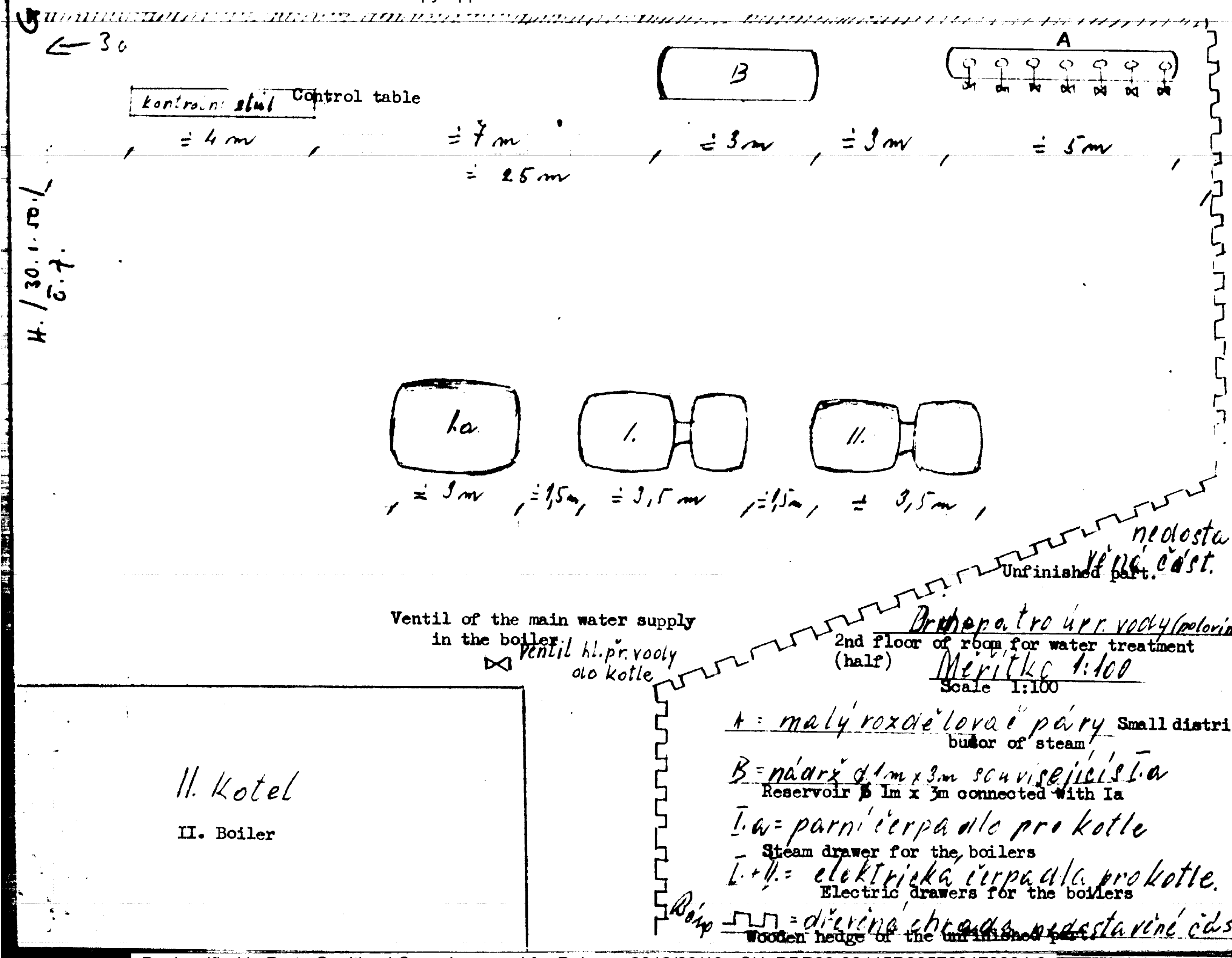
Vodní potrubí jest vedeno horem. (→ směr toku vody.)

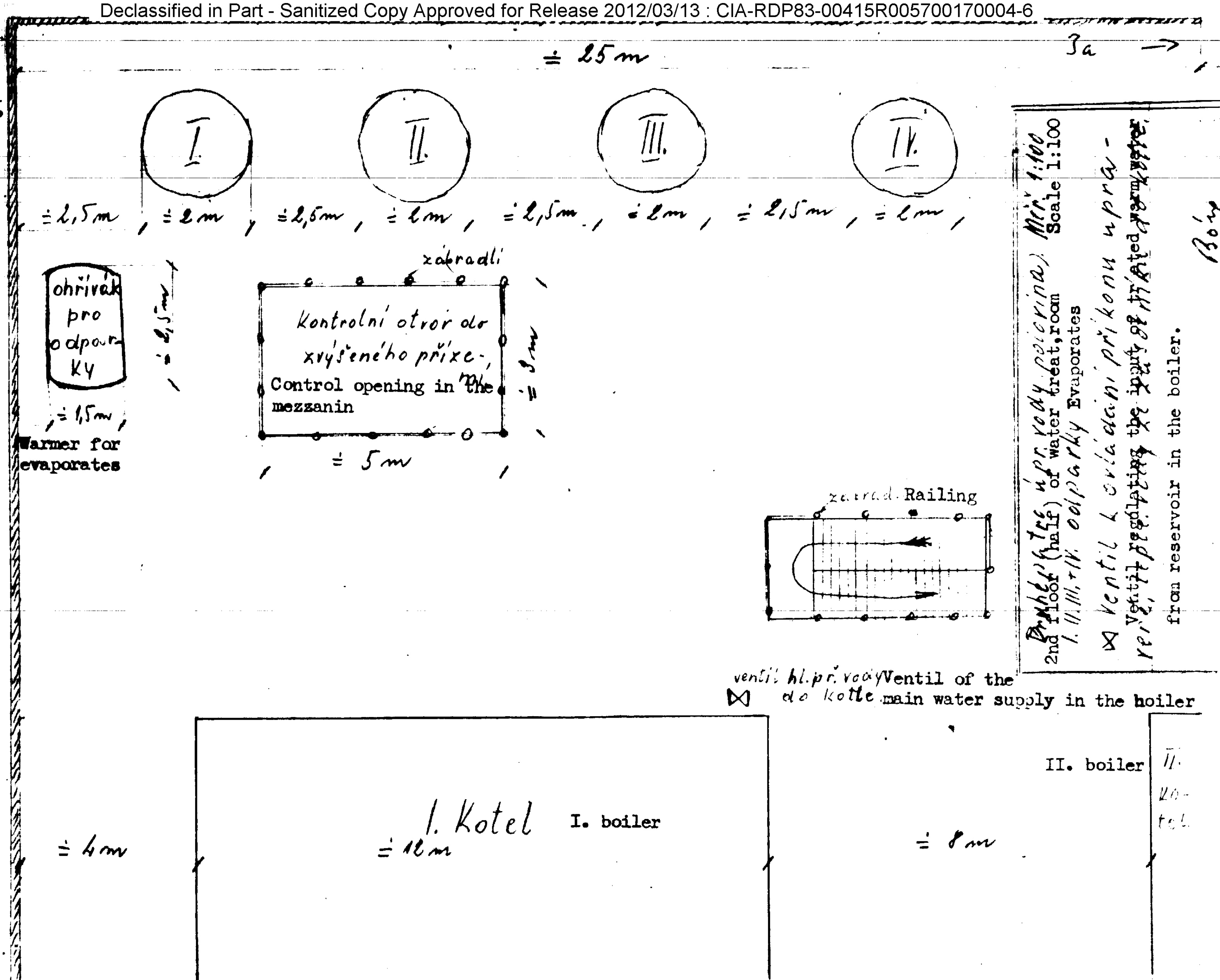
Water pipes are laid externally (→ direction of water-flow).

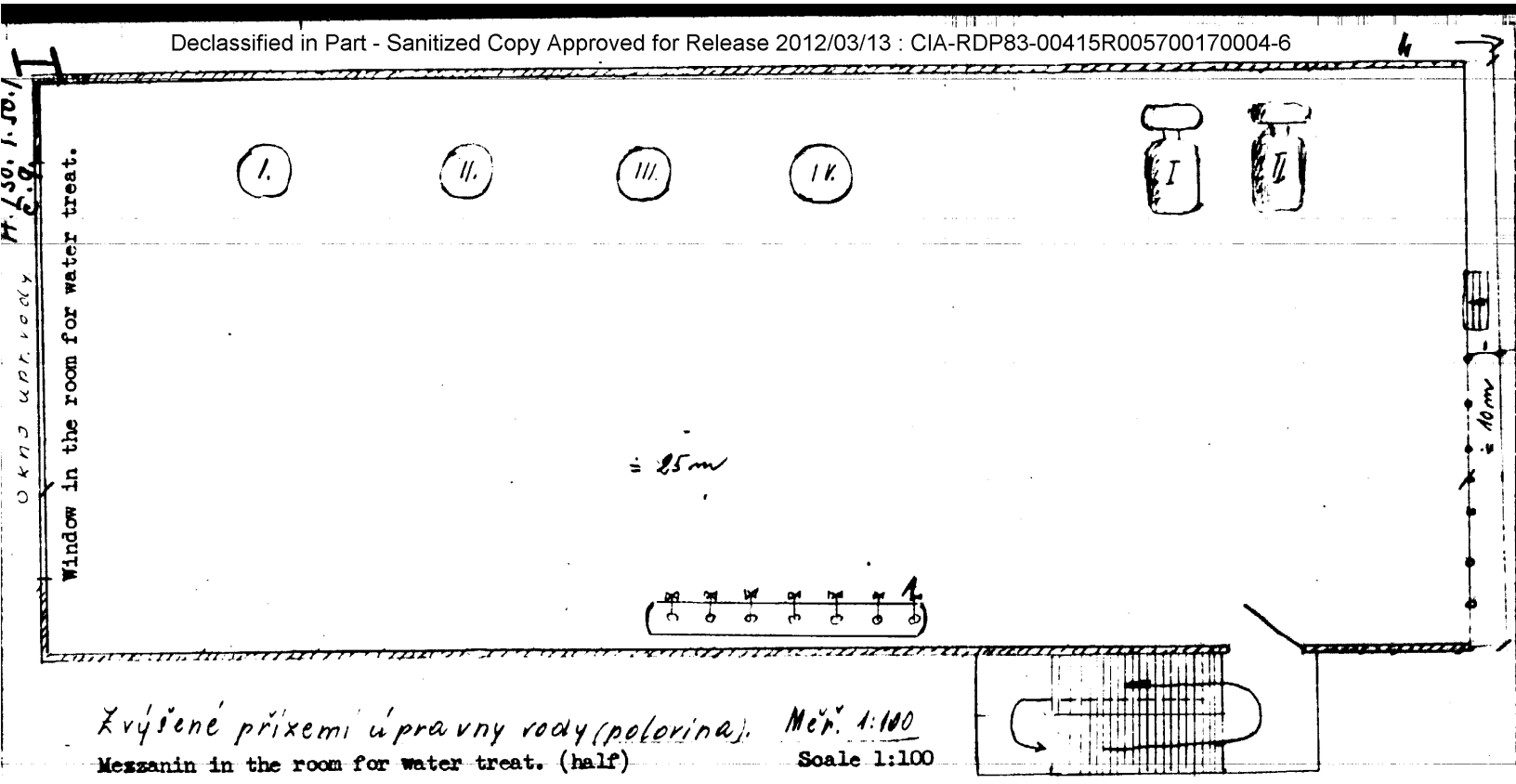
	night	ranní
příkon surové vody	afternoon	
Input of raw water		
teplota surové vody		
Temperatures of raw water		
teplota měkké vody		
Temperatures of soft water		
Temperatures of treated w. in rep.		

tlak vody jest udán příkonem.

Water pressure is given in its input.


A
B
kontrolní stůl Control table
÷ 4 m
÷ 7 m
÷ 3 m
÷ 3 m
÷ 5 m
÷ 25 m
I.a
I.
II.
÷ 3 m
÷ 1,5 m
÷ 3,5 m
÷ 1,5 m
÷ 3,5 m
Unfinished part.
Ventil of the main water supply in the boiler.
Ventil hl. př. vody do kotle
2nd floor of room for water treatment (half)
Měřítko 1:100
Scale 1:100
II. Kotel
II. Boiler
A = malý rozdělovač páry
Small distributor of steam
Reservoir B Im x 3m connected with Ia
I.a = parní čerpadlo pro kotle
Steam drawer for the boilers
I.+II. = elektrická čerpadla pro kotle.
Electric drawers for the boilers
Wooden hedge of the unfinished part.


H. /30. 1. 50./ Ed.
3a
÷ 25 m
I.
II.
III.
IV.
÷ 2,5 m
÷ 2 m
÷ 2,5 m
÷ 2 m
÷ 2,5 m
÷ 2 m
÷ 2,5 m
÷ 2 m
ohřívák pro odparky
Warmer for evaporates
÷ 1,5 m
÷ 2,5 m
zábradlí
Kontrolní otvor do zvýšeného přízemí
Control opening in the mezzanin
÷ 3 m
÷ 5 m
Railing
2nd floor (half) of water treat,room
Scale 1:100
Evaporates
from reservoir in the boiler.
Ventil of the main water supply in the boiler
do kotle
I. Kotel
I. boiler
II. boiler
÷ 4 m
÷ 12 m
÷ 8 m

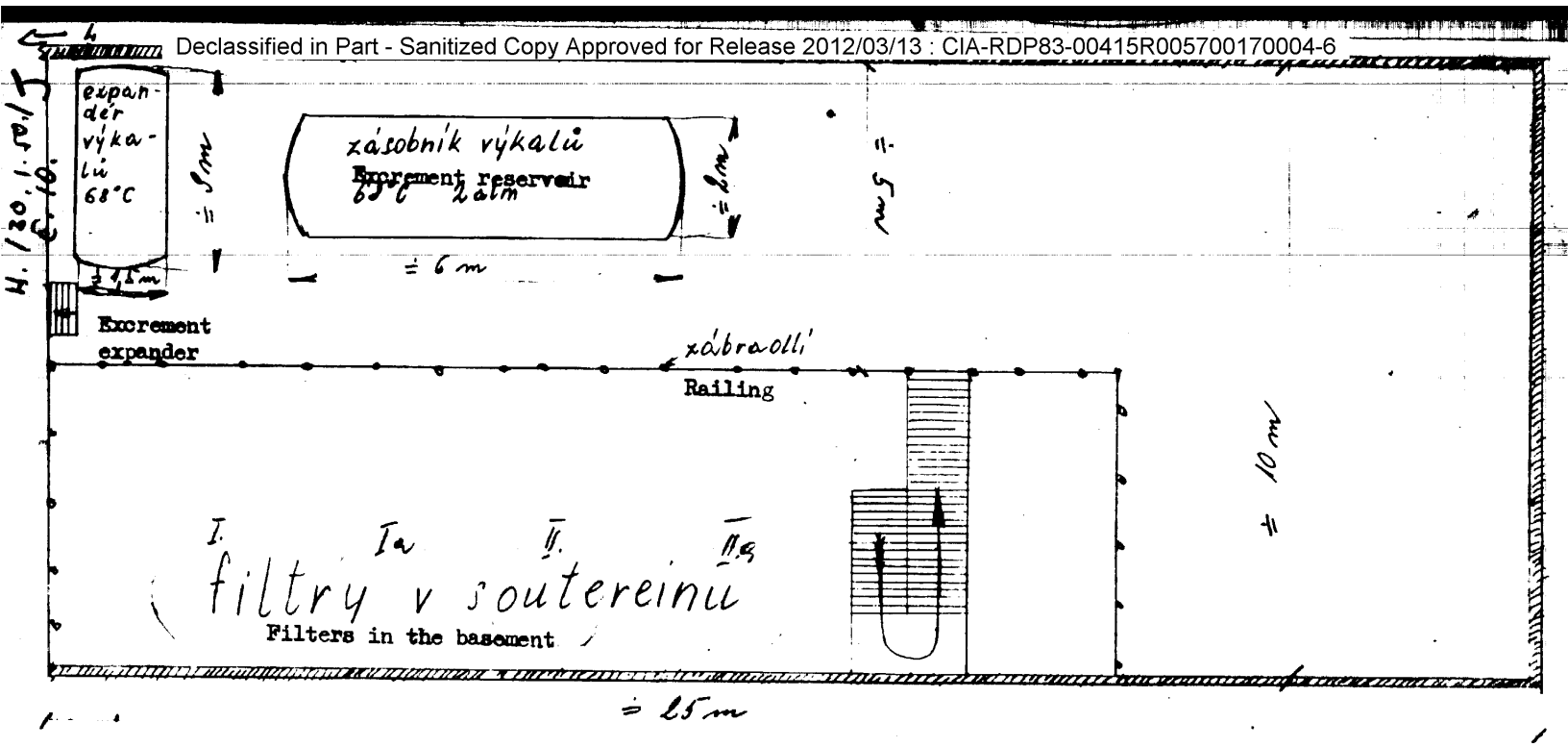


Zvýšené přízemí úpravny vody (polorina). Měř. 1:100
Mezzanin in the room for water treat. (half) Scale 1:100

I.-II. pumpy pumps

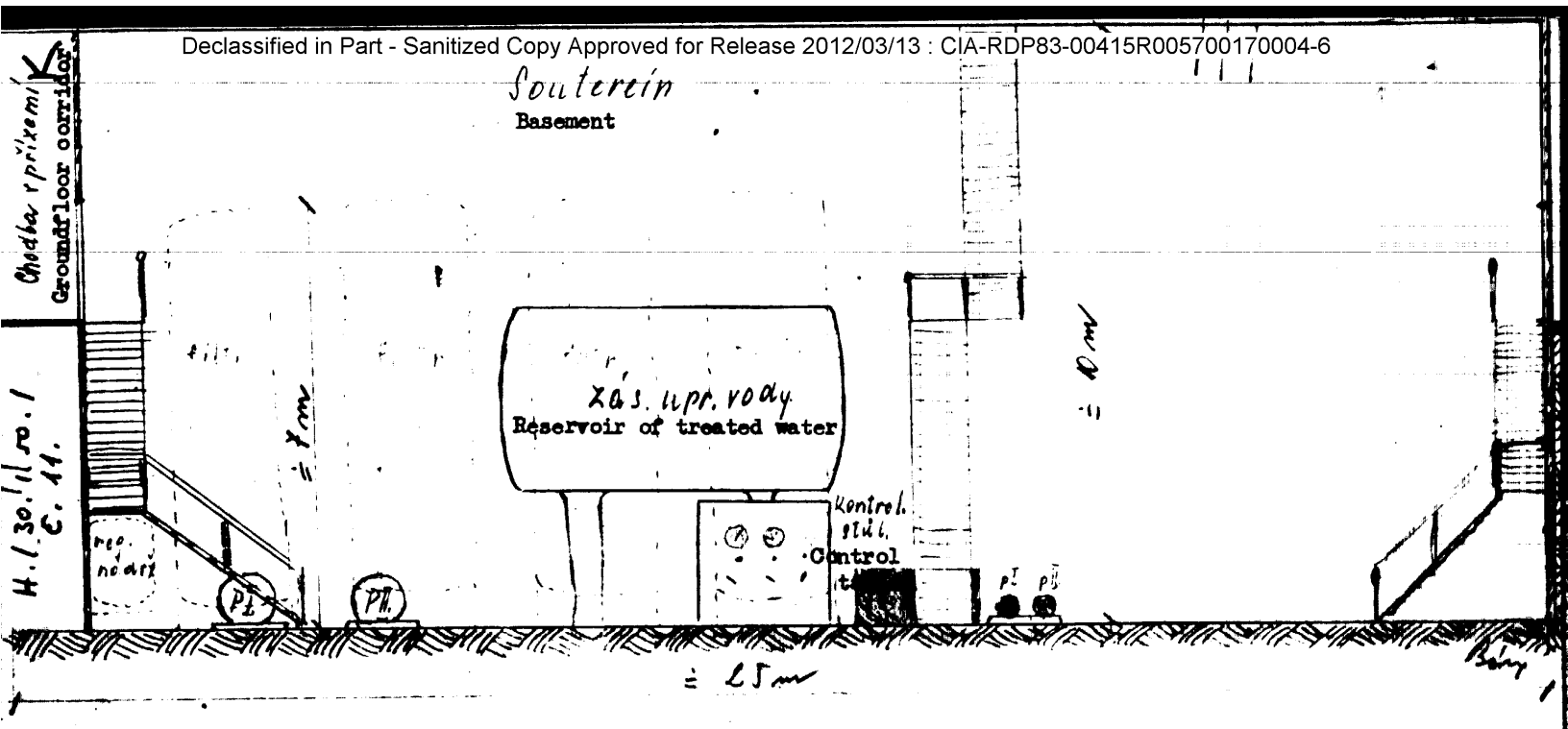
I. II. III. + IV. spodní díly odparek lower parts of the evaporates

A = rozdělovač teplé vody pro umývárny „Poldiny huti."
Hot water distributor for wash-rooms at Poldina Hut.



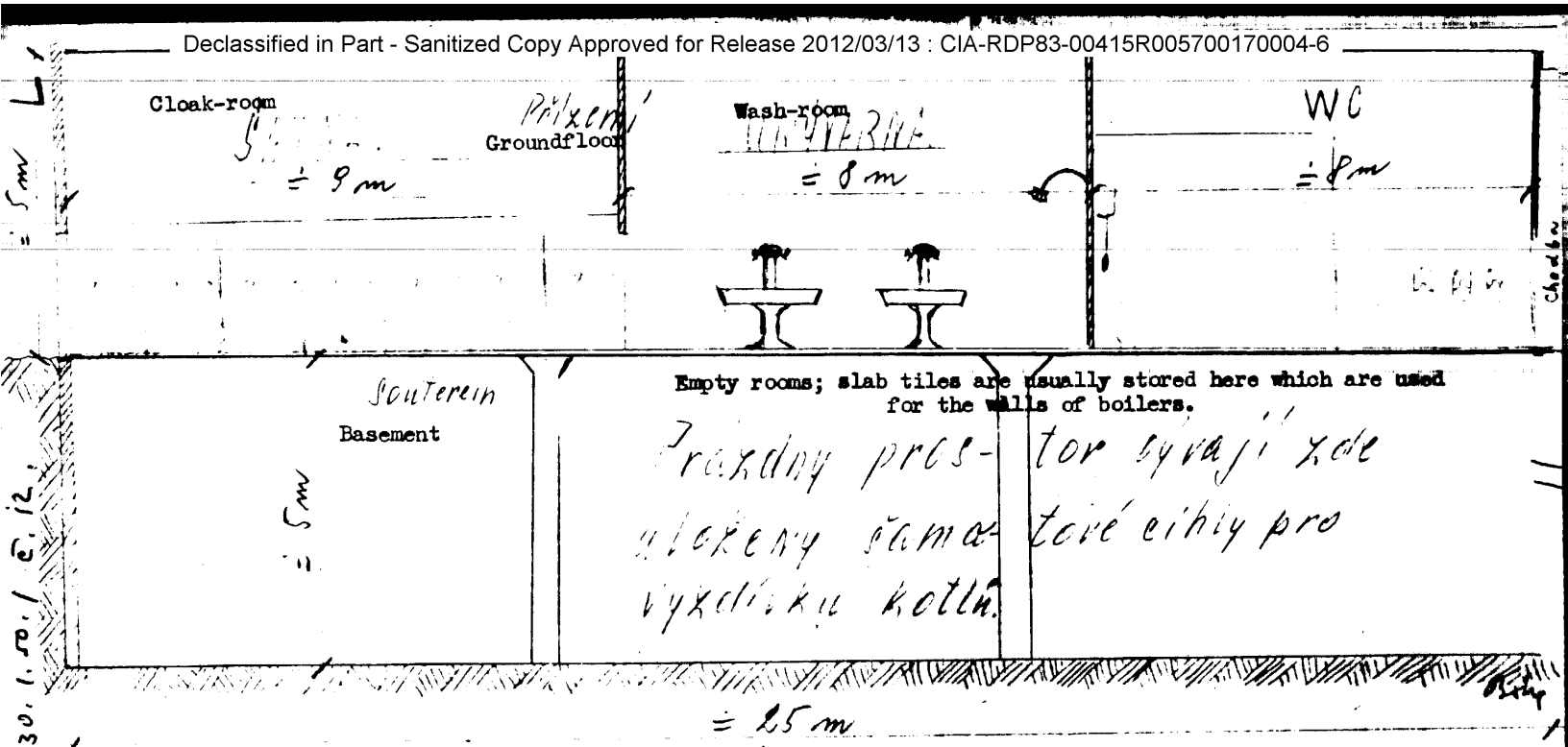
Zvýšené přízemí úpravny vody (polorina).
Mezzanin (half) of the water-treat. room

Měřítko 1:100
Scale 1:100



Řez A-B — Měřítko 1:100 — První díl.

Section A-B — Scale 1:100 — First Part,

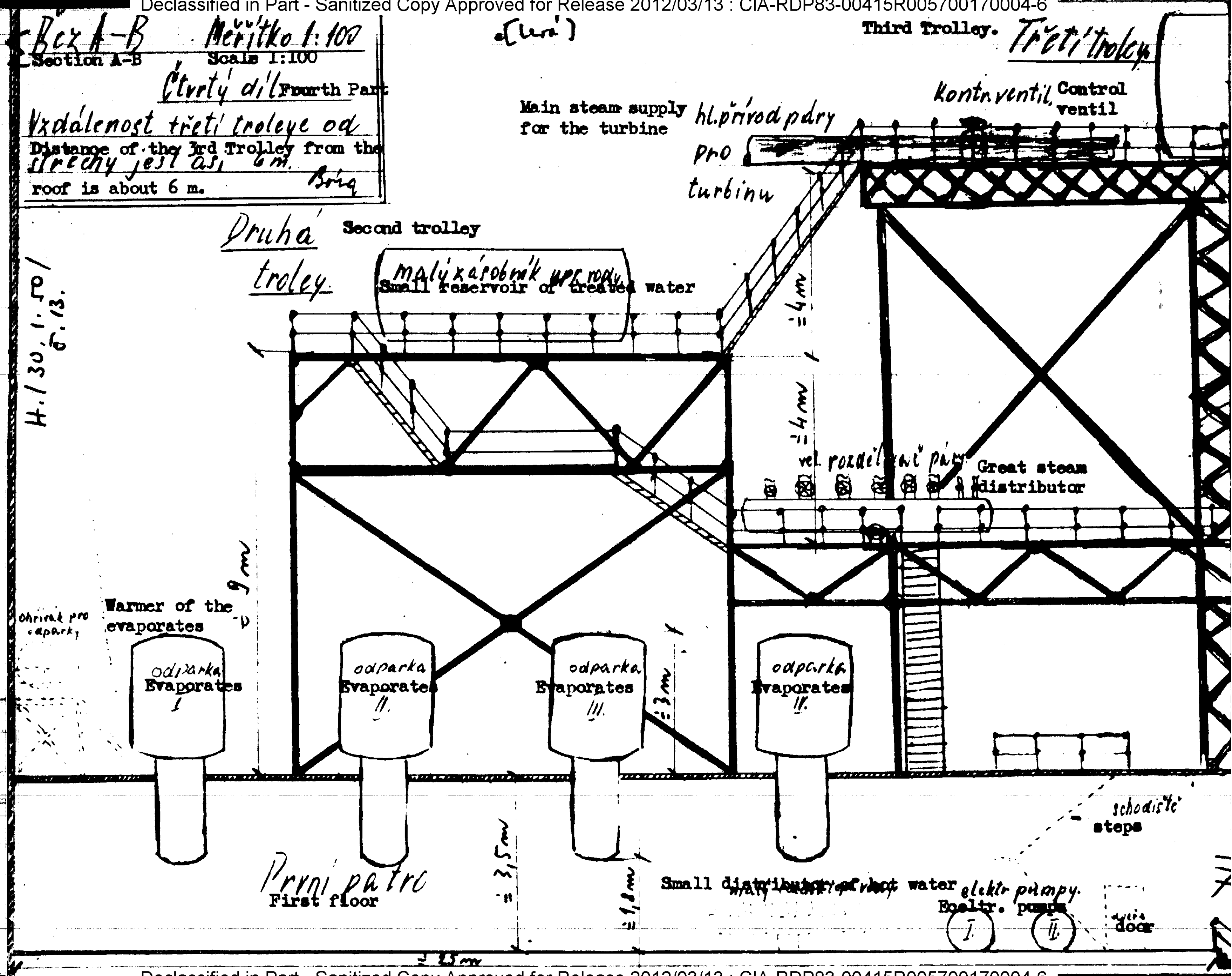


Řez A-B Měřítko 1:100

Section A-B Scale 1:100

Druhý díl.

Second Part,


Řez A-B
Section A-B
Měřítko 1:100
Scale 1:100
Čtvrtý díl
Fourth Part
Vzdálenost třetí troleye od střechy jest asi 6 m.
Distance of the 3rd Trolley from the roof is about 6 m.
Third Trolley.
Třetí troley
kontr. ventil.
Control ventil
Main steam supply for the turbine
hl. přívod páry pro turbinu
Druhá troley.
Second trolley
Small reservoir of treated water
vel. rozdělovač páry
Great steam distributor
Warmer of the evaporates
odparka
Evaporates
I.
II.
III.
IV.
První patro
First floor
Small distributor of hot water
steps
schodiště
elektr. pumpy.
Eelektr. pumps
door
H.130.1.50/6.13.
4m
4m
9m
3m
3,5m
1,8m