

TABLE II

SUMMARY OF DESIGN OF WINKLER GENERATORS MAKING WATER GAS

<u>Plant</u>	<u>Leuna</u>		<u>Böhlen</u>	<u>Zeitz</u>	<u>Magdeburg</u>	<u>Brux</u>
Reference Units	Small 1	1 Large 3(+1)*	2 3	3 3	1 3	1 & 4 5 or 6
Output NM ³ /hr water gas :						
Maximum	40,000	80,000	25,000	22,000	-	-
Normal	30,000	60,000	20,000	18,000	ca 20,000	ca 20,000
Minimum	-	-	12,000	9,000	-	-
Fuel	Grude (formerly dry brown coal)		Grude	Grude	Grude	?
Grate	1 small & 1 large are grateless; others stationary grate.		Stationary grates			1 grateless; rest Stay.Gr.
Gasification chamber	Some bulbous at top, some straight-sided.		Straight-sided			
I.D. of fuel bed	<u>Small</u> 3.9 m	<u>Large</u> 5.5 m	4.5 m	4-4.5 m	4.5 m ?	
Cross-sectional area	12 M ²	25 M ²	16 M ²	12.5-16 M ²		
Depth of fuel	1 m	1 m	1.5 m	1.5 m		
Overall height	-	-	20 m	20 m	20 m	
Waste Ht. Recy.	Waste heat boiler, superheater and economiser					
Dust removal; primary)	Cyclone before W.H.B.		Multicyclones after W.H.B.		Originally electrostatic, now multi-cyclones.	
final	Direct contact cooler and Theisen disintegrator					
Recovered dust used as:	Boiler fuel, returned to Winkler or for dephenolation.		Boiler fuel	Boiler fuel		

* 1 large generator now used experimentally for other purposes.