SUPPLIMENTARY TARGET

PROPOSED "K-K" TEST INSTALLATION

of

I. G. Farben Industrie

1. These drawings, prepared by I. G. Farben Industrie A-G. at Leuna, refer to a project of catalytic cracking installation that was to be built in an underground site referred to by the code name of "Kukuk" but never materialized.

2. Catalytic cracking for the production of high octane gasoline base stock, from petroleum crude or synthetic raw material, was studied in Germany during the war, but according to technical information on hand no plant was ever put into operation.

3. The process described in these drawings used a moving catalyst bed and nitrogen as a quenching medium. The prepared composition of the catalyst is not known.

4. The drawings listed do not purport to be a complete set of drawings but are all of the drawings taken from the files of the Ammoniakwerk Merseburg (Leuna) plant of the I. G. Farben Industrie at the time of the investigation.

5. The numbers on the index correspond with the numbers on the drawings and are arranged in the same order.

FRAME NO.	MFGR. NO.	TITLE
1		Working plan - general plant layout.
2	M-02-1	Condenser - low temperature condenser - cooler.
3	M-05-1	Nitrogen cooler - 422 tubes = 175 m2.
4	M-06-1	Inlet pipe for regenerator part of oven.
5	M-08-1	Heat exchanger 275 m2 surface.
6	M-09-1	Main air duct for regenerator oven.
7	M-010-1	Half inlet pipe for regenerator part of oven.
8	*M-020-1	KK test oven - Upper part - spouts - plate cooler - Inlet and outlet pipes.
9	M-021-1	Feeler - Optical observer - nitrogen protector.
10	M-025-1	Gas burner and its protection.
11	M-028-1	Detail of inlet valve in heat exchanger.
12	M-033-1	Flow sheet - sketch.
13	M-035-1	Layout sketch for Denben oven.
14	M-036-1	Sketch of oven cover.
15	M-039-1	Sketch of oil spraying.
16	M-040-1	Pipes & lines - and machinery location for clearance.
17	M-043-1	Sketch of the KK plant project.
18	M-11-1	Scavenging pipes for regenerator oven,
19	M-12-1	Half scavenging pipes for regenerator oven.
20	M-13-1	Outlet pipes for regenerator oven.
21	M-14-1	Half outlet pipes for regenerator oven.
22	M-15-1	Steel work for filling spout.
23	M-16-1	Details of parts of charging mechanism.
24	M-17-1	Assembly of charging mechanism.
25	M-22-1	Perspective view of in and out pipes of the oven.
26	M-24-1	Details of oven.
27	M-27-1	Details of parts of driving mechanism.
28	M-26-1	Collector for oil pressure drive.
29	M-38-1	Sketch of assembly.
30	M-5927-1	Mechanical details of filling apparatus.
31	M-6129-1	Details of sluice - parts 1-13-21-38.
32	M-6134-1	Details of sluice,2,5,8,11,16,19,23,24,25,26,30,31, 32,35,36,41,42,43,45,46,47.
33	M-6144-1	Details of filling mechanism.
34	M-6171-1	Indexed assembly of filling mechanism.
35	M-6206-1	Details of valve.
36	M-6240-1	Steel work and assembly of sluice.drive.
37	M-01-2	Drives for the bucket conveyors.
38	M-02-2	Assembly of the bucket conveyors.
39	M-03-2	Overall dimension sketch of KKoven.
40	M-04-2	Assembly of the bucket conveyors.
41	M-05-2	Plate cooler for testing regenerating oven.
42	M-06-2	Description of the fresh air inlet also the oil spray.
43	M-07-2	Overall dimension sketch of KK oven.

FRAME NO.	MFGR. NO.	TITLE
44	M-08-2	Preheater - 115 m2 - 800 mm ϕ x 6000" long.
45	M-09-2	Compensator (expansion joint).
46	M-013-2	Location of the electric motors.
47	M-014-2	Assembly and details of condenser 920 mm ϕ x 6915 mm long 139 m2 surface.
48	M-015-2	Assembly & details of low temperature condenser 470 mm ϕ x 6605 mm long. 29m2 surface.
49	M-016-2	Washing tower, 2000 mm ϕ - 5900 mm high.
50	M-017-2	Lower part of the KK testing oven - Brickwork.
51	M-021-2	Tar separator 1000 mm ϕ x 3506 mm high.
52	M-024-2	Details of drive mechanism.
53	M-025-2	Outlet pipe for regenerator portion.
54	M-026-2	Half outlet pipe for regenerator portion.
55	M-027-2	Inlet pipe for regenerator portion.
56	M-028-2	Half inlet pipe for regenerator portion.
57	M-029-2	Various detail parts for the KK test oven - Protection of the air duct, the air inlet, the thermocouples.
58	M-030-2	Foundation plan and machinery anchoring.
59	M-031-2	Bunker at inlet mechanism.
60	M-032-2	Details of drive mechanism.
61	M-033-2	Closing mechanism of the sampling device.
62	M-034-2	Preheater and mixing tuyere - Details.
63	M-035-2	Burner and lighter for the preheater.
64	M-036-2	Burner and mixing tuyere for KK installation.
65	M-040-2	Quenching nitrogen delivery.
66	M-041-2	Details of Distributor support.
67	M-042-2	Details of Distributor parts.
68	M-043-2	Sketch of the control of air pipes.
69	M-045-2	Protection for the inlet for the lower half of the scavenging pipe.
70	M-046-2	Layout for the two half scavenging pipes for the cracking portion.
71	M-049-2	Assembly drawing of the Distributor and supports.
72	M-10-2	Filling mechanism.
73	M-11-2	Lower plate.
74	M-18-2	Main air inlet duct with connections to brickwork and expansion joint.
75	M-11603-2	Upper part of the KK testing oven - Brickwork.
76	M-12386-2	Chain sprockets for drives.
77	M-12712-2	Lower portion of steelwork.
78	M-12724-2	Large and small oil pipes with expansion joints.
79	M-12824-2	Installation of the photocells and their protection.
80	M-01-4	Steel container - 2500 x 1000 - 2.2 m3 cap.
81	M-02-4	Separator 419 mm ϕ x 750 mm high.
82	M-03-4	Air pipe Distribution for the oven chamber.
83	M-04-4	Foundation of compressors. #43 and #44.

FRAME NO.	MFGR. NO.	TITLE
84	M-06-4	Control mechanism of the air pipes with packing glands.
85	M-017-4	Reflection plate.
86	M-018-4	Dashpot for hydraulic control of valve.
87	M-020-4	Reflection plates.
88	M-021-4	Details of parts of separator supports.
89	M-022-4	Installation of filling bunker & spout.
90	M-12-4	Dashpot for hydraulic control of valves.
91	M-13-4	Insulation for sluice.
92	M-14-4	Insulation for sluice.
93	M-9562-4	Oil inlet pipe.
94	M-03-8	Silica net for gas burner.
95	M-04-8	Other mixer 800 mm ϕ x 1800 high.
96	M-05-8	Mixer for gas and combustion air.
97	M-06-8	Separator trap - 1000 mm ϕ - 1600 mm high.
98	M-07-8	Separator 500 mm ϕ- 1620 mm long with cooling coil.
99	M-08-8	Separator trap - 800 mm ϕ 700 mm high.
100	M-09-8	Mantel to remove the hairpin tubes of the 275 m2 heat exchanger.
101	M-013-8	Pump foundation #31.
102	M-014-8	Pump foundation #35.
103	M-016-8	Arrangement of travelling crane above oven.
104	M-017-8	Separater - 600 mm ϕ x 1160 mm.
105	M-018-8	Protector plate - 1120 mm ϕ 3080 mm long.
106	M-019-8	300 mm ϕ x 600 mm high filter pot.
107	M-10-8	Pump foundation #33.
108	M-11-8	Pump foundation #32 and #34.
109	M-12-8	Pump foundation #36.
110	M-06-16	Well for the KK installation.
111	M-07-16	Calculation for the lower sluice driving mechanism.
112	M-08-16	Arrangement of safety rip plate near burners.
113	M-09-16	Calculations for the sluice driving mechanism.
114	M-10-16	Packing for the samples.
115	M-20-8	
116	M-21-8	
117	M-22-8	