

Report 2. Interrogation of Dr. Spanier and  
Dr. Schrieber

Date of Interrogation: April 6th, 1945.

Personnel conducting interrogation:

Lt. Col. A. Parker, British, Ministry of Fuel and  
Power.

Col. J.A. Oriel, .. .. .

Reported by : Lt. Col. A. Parker

Interrogation of Dr. Spanier.

This man was left in charge of the works when the main body of technical personnel was evacuated following the destruction of the plant by bombing. He originally held some position of responsibility in the Ruhrchemie nitrogen factory but was unable to supply any useful information concerning the Fischer-Tropsch section. He was little more than a 'caretaker'.

Interrogation of Dr. Schrieber.

This man gave an account of his laboratory researches on dehydrogenation. Before the war he had worked on the dehydrogenation of C<sub>3</sub> and C<sub>4</sub> paraffins using an Al<sub>2</sub>O<sub>3</sub> - Cr<sub>2</sub>O<sub>3</sub> catalyst containing 0.2% of cobalt, prepared by heating aluminium hydroxide with chromium and cobalt nitrates. The catalyst was run for one hour at 590°C. and then reactivated with air at the same temperature. A 3 months' run had been carried out in this way with a n-butane feed, and an average conversion to butenes of 20% was obtained.

His more recent work was concerned with the dehydrogenation of C<sub>16</sub>-C<sub>18</sub> Fischer-Tropsch paraffins to produce olefines suitable for use as raw material in the OKO process. The main catalyst used in this work was prepared as follows. Carborundum granules (2-4 mm.) were washed with dilute nitric acid, dried and heated to 650°C. The granules were then placed in a vessel heated to 350°C. which was rotated in an inclined position while a 3% solution of the nitrates of thorium and chromium (21 gm. ThO<sub>2</sub> : 7 gm. Cr<sub>2</sub>O<sub>3</sub> for 200 cc. granules) was sprayed in during the course of 4-5 hours, to form an even deposit on the granules. The resulting catalyst was then heated slowly to 520°C. and then to 850°C for 2 hours in a

stainless-steel tray. The granules were then reduced in hydrogen at 200 l./hour for 5 minutes at 560°C., the hydrogen replaced by nitrogen and the reaction tube evacuated to 20 mm. Hg. The vapour of C<sub>16</sub>-C<sub>18</sub> paraffins was then passed over at a rate equivalent to 200 cc. liquid per 200 cc. of impregnated granules per hour. The catalyst was reactivated by oxidation with air. Its life was believed to be 3 months. The yields obtained were, 15% C<sub>16</sub>-C<sub>18</sub> olefines 6% lower (liquid) olefines, 2-3% gas and 0.5% carbon, deposited on the catalyst. The addition of 12 gm. of BaO as barium nitrate to the above quantities of thoria and chromia was tried with the object of reducing aromatisation. By recycling twice, a yield of 21% C<sub>16</sub>-C<sub>18</sub> olefines and 7% of lower olefines was obtained.

Schrieber had also carried out some work on the production of carboxylic acids by the oxidation of micronised coal.