

ANALYSIS OF THE VOLUME OF CHEMICAL PRODUCTION OF UKRAINIAN COKE-CHEMICAL ENTERPRISES IN 2020

© **S.A. Kravchenko**, PhD in Technical Sciences (STATE ENTERPRISE "STATE INSTITUTE FOR DESIGNING ENTERPRISES OF COKE OVEN AND BY-PRODUCT PLANTS" (SE "GIPROKOKS")), 60 Sumska str., Kharkiv, 61002, Ukraine), **A.G. Starovoit**, Doctor of Technical Sciences (UKRAINIAN SCIENTIFIC AND INDUSTRIAL ASSOCIATION "UKRKOKS"), 1 Geroev Maidana sq., Dnipro, 49000, Ukraine), **O.V. Turkina**, **S.V. Chaplianko**, PhD in Technical Sciences (SE "GIPROKOKS")

There has been carried out an analysis of the volume of chemical production for 2020 of eight Ukrainian coking enterprises and industries that were located in the territory controlled by Ukraine. It is shown that the maximum number of chemical products captured from coke oven gas accounted for anhydrous coal tar (419.1 thousand tons), crude benzene processing products - for commercial benzene (3.7 thousand tons), coal tar processing products - for coal tar pitch (96.4 thousand tons). Compared to 2019, the maximum increase in production volume in 2020 was accounted for by benzene polymers (by 4.5 times), technical solvent (by 2 times), distillation residues (by 2 times), head fraction (not produced in 2019), anthracene fraction (1.5 times), the maximum decline - for sulfuric acid (1.2 times), concrete mix plasticizers (not produced) and light-medium oil (1.3 times). On average for enterprises: out of 1 ton of dry charge, the yield of coal tar was 3.45 %, ammonia - 0.33 %, crude benzene - 0.68 %, and the maximum yield of the total consumption of raw materials fell on technical benzene - 58.3 % and medium-temperature pitch - 28.4 %. The properties of the same chemical products produced at different enterprises corresponded to different brands or grades, which is explained by the difference both in the quality of raw materials and in the features of production processes. Chemical products of coke companies were used in various industries as finished products or raw materials. Due to the destruction and damage of coke enterprises that were under the influence of hostilities or the disruption of the logistics supply of raw materials and energy resources, the issue of the ability of domestic coke enterprises to produce products becomes very relevant. The analysis given in the article should be used to assess the damage caused to domestic enterprises by the armed aggression of the Russian Federation.

Key words: analysis, coke production, chemical products, coal tar, ammonium sulfate, benzene, sulfuric acid, coal tar pitch, coal oils, phenolates.

Corresponding author: S.V. Chaplianko, e-mail: chaplianko_sv@ukr.net
