

**Design of a Laboratory Installation for Experimental Studies
of the Process of Foam Purification of Gas-Dust Emissions
from Red Phosphorus**

O. V. Dolgova, Yu. V. Lopatyuk, A. V. Kozachek

*Tambov State Technical University, Tambov;
Federal Center for Dual Technologies "Soyuz",
Dzerzhinsky, Moscow region, Russia*

Keywords: laboratory facility; foam apparatus; design; gas cleaning process; particles of red phosphorus; experimental research.

Abstract: A small-sized laboratory unit has been designed and manufactured for laboratory research of the process of cleaning gas emissions from phosphorus particles in a foam absorber. The installation is designed in accordance with the requirements of the similarity theory, which allows you to fully simulate the processes occurring in an industrial installation. The use of a small-sized laboratory foam filtration unit at the research stage will optimize and reduce the cost of the process of developing an industrial gas cleaning unit.

© О. В. Долгова, Ю. В. Лопатюк, А. В. Козачек, 2021