



RESEARCHES ON THE NEGATIVE EFFECTS ASSESSMENT (SLUGGING, CLOGGING, ASH DEPOSITS) DEVELOPED AT THE BIOMASS-COAL CO-FIRING

**Corina Rădulescu, Tudor Prisecaru, Lucian Mihăescu, Ionel Pîșă, Gheorghe Lăzăroiu*,
Simona Zamfir, Dănuț Văirenu, Elena Popa**

University Politehnica Bucharest, 313 Splaiul Independentei Street, Sector 6, 060042 Bucharest, Romania

Abstract

Using biomass in combustion, as a renewable source of energy, from ecological and economic considerations, sets special demands for control of the co-firing process. The paper aimed to study the problems like slugging, clogging and ash deposits formed on heat exchange surfaces during the co-firing process of agricultural biomass with coal. There are identifies the main factors that influence the formation of flying ash deposits and corrosion process. Most problems of co-firing process of biomass with coal have their origins in fuels properties. The problems related to the ash management have a strong impact on the life time of heating equipment and environment, therefore has economic and ecological relevance.

Keywords: biomass, straw, coal, low heat value, slugging, pollutant emission

* Author to whom all correspondence should be addressed: glazarioiu@yahoo.com; Phone: +40-21-4029868, Fax: +40-21-4029868.