



# FATS AND PROTEINS RESEARCH FOUNDATION, INC.

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THE DIRECTOR'S DIGEST  
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TECHNICAL DIRECTOR

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## ODOR CONTROL PROCESSES FOR THE RENDERING PROCESS

As a follow-up to the studies on the chemical nature of odorous emissions from the rendering process (see Director's Digest No. 80, February, 1971), FPRF has initiated the second phase of research at IIT Research Institute. The objective of this study is to develop effective, economical control techniques for rendering odors.

The first studies undertaken in the second phase of the research have included design and cost calculations for different types of odor control systems. Preliminary cost comparisons indicate clearly that gas scrubbing is most likely to control rendering odors effectively at the most reasonable cost. Thus concentrated experimental work has been started on the gas scrubbing method. Design studies will of course continue on other control methods.

An experimental laboratory scrubber is under construction. It will be used to determine the relative effectiveness of scrubber solutions and to evaluate the two effects that can limit performance - e.g. (1) the chemical reaction rate of the reagent with the odorants and (2) the rate of mass transfer of odorants from the bulk of the gas stream to the surface of the scrubbing fluid. In all cases selected odorants identified in the first phase of the studies will be used to monitor subjectively the performance of the scrubber and the effectiveness of the scrubber solutions used.

It is indeed gratifying that the meat packing industry and the Environmental Protection Agency will contribute substantial financial support for these studies.