This machine weighs 13 lbs. and its parent and modifications of it have been in existence for 5 years which I think provides it with greater impact on the medical public than some of its competitors that have not been in existence for such a long period of time. This machine is relatively simple to operate. One can do 2 or 3 of the above mentioned tests (FVC and $FEV_{1.0}$). in a minute and a half per employee.

Having this equipment in the plant itself would seem to be the proper way to handle the situation since one would be able to do the preplacement pulmonary function testing at the onset. Having this done in the hospital, a clinic, or the doctor's office would only involve them away from the job, possible transportation costs, and a higher charge by any outside agent than that which it would cost us with this basic investment and relatively simple training to use the equipment. It would be my recommendation that any of our plants with such exposures purchase such a machine and begin their testing of the employees at this time.

Pulmonary function testing in itself is going to create problems for us with respect to the hiring of individuals and their continuance on the job should they have insufficient or poor responses on the pulmonary function testing. In my opinion it would be difficult for a malingerer to duplicate his malingering accurately and consistently with this equipment because it is so precise. In using this Pulmonary Performance Analyzer, one can easily obtain an impression of the person's degree of cooperation which the machine can largely confirm.

On page 913 of the Occupational Safety and Health Reporter which was sent by Charles Borcherding not too long ago to each of the Manufacturing Vice Presidents, there is the following:

> "(7) The employer shall establish a respirator program in accordance with the requirements of the latest revision of the American National Standard Practice for Respiratory Protection Z88.2, with the exception that no employee should be assigned to tasks requiring use of respirators if his most recent medical examination indicates: (1) Forced vital capacity less than 70% of predicted value for age, height and sex, or (2) Forced vital capacity less than 80% of predicted value for age, height or sex in addition to at least two of the following criteria.
>
> (a) X-ray evidence of asbestosis
> (b) Dyspnea (shortness of breath)
> (c) Rales
> (d) Clubbing of fingers "

If your in-plant working conditions do not require a respirator, this will not pose a real problem. If your working practices or lack of adequate engineering requires the use of respirators, then the results of the pulmonary functic