

Oak Ridge Gaseous Diffusion Plant as part of the molecular anatomy or "MAN" program to provide new approaches to this problem.

The first concrete result is the GeMSAEC Fast Analyzer, the first analytical system that provides data at a high rate of speed in a computer-compatible form. Although this system is hardly a year old, four commercial firms have announced the availability of operational systems.

Briefly, the fast analyzer uses centrifugal force to transport and mix up to 40 samples with reagents simultaneously and, in addition, moves the mixture past a light beam at a high rate of speed. In the simplest instance all measurements may be made during one turn of the cuvette rotor, which takes 50 milliseconds.

The adaptation of clinical tests to this device is in progress, and an evaluation of it in cost-benefit terms will effectively measure its impact on human health.

The final area of concern in which I believe the AEC plays a vital role related to national health is that of the environment. We do this from two standpoints, the first in terms of using the highly advanced methods of nuclear science to gain a better understanding of the environment and, second, through our function as a regulatory agency charged with the responsibility of seeing that the health and safety of the public is a foremost consideration where and when nuclear energy is at work. This is a responsibility that I can assure you the staff of the AEC carries out with great dedication and integrity. I think it is important that the public know this, and therefore I make this point at every opportunity.

Concerning the nuclear investigations of the environment, there have been very significant studies in marine biology and physical oceanography. These studies also yield valuable knowledge of the atmosphere and of the world's water, its chemistry and its movement from rainfall, through our waterways and underground systems. They help us analyze air pollution. They give us important information on the ecology of animal and plant life. In fact, one of the reasons for our alarm over environmental conditions today is that studies like these have given us better understanding of the environment and the ability to project future dangers to it. I believe these studies and projections, as frightening as they may be today, are going to have a positive effect in the long run. They should give us both the knowledge and the will to face and solve these problems.