

## CAREER OPPORTUNITIES<sup>1</sup>

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### ABSTRACT

The role and responsibilities of the sanitarian have changed drastically in the last two decades. Now he must be concerned with many aspects of the total environment that go far beyond those of interest to the traditional milk inspector or dairy plant fieldman. There are many career opportunities for the environmental sanitarian with federal, state, and local regulatory agencies; industry; trade associations; and public service organizations. It has been necessary for colleges and universities to revise and update curricula to assure the proper training of students to be able to meet the challenges and responsibilities of the professional environmental sanitarian. Sanitarians already in the profession must take action continuously to be professionally qualified. There are more environmental sanitarian positions open than there are graduating students available to fill them. Possibly some procedures must be devised to train individuals from other occupations and professions to enable them to become qualified environmental sanitarians. As our society becomes more complex and technology continues to change, the need for qualified environmental sanitarians will continue to increase. Who will be available to fill these positions?

The role and responsibilities of the sanitarians have changed greatly in the last several decades. When some of us became engaged in this activity, our concept of a sanitarian was relatively limited.

To some of us a sanitarian was a person working for a municipality or state health or agriculture department. His main concern was with development and maintenance of a Grade "A" milk supply. A common term applied to him, frequently in a derogatory manner, was that - - - - - milk inspector.

### EARLY SANITARIANS

The early milk sanitarians had an uphill battle. Their technical assistance, and often their technical training, were limited. Changes were coming fast. Development of the milking machine, pipeline milking and bulk milk handling, CIP, free stall and loose housing of dairy cattle were but a few of the changes that introduced new problems in milk sanitation.

These problems were overcome by the hard work and perseverance of many people—mainly sanitarians. This success story is taken for granted today—so much that the proportion of many municipal budgets devoted to milk sanitation programs has been

decreasing rapidly. It has now reached the point where some cities have eliminated these programs and turned them over to some state agency.

If loss of financial support can be used as a measure of a program's success, milk sanitation programs have been extremely successful. Needless to say, there are many other ways to measure the success of these programs in a more positive manner.

Another concept of a sanitarian was a person employed as a dairy plant fieldman. This fellow had contradictory responsibilities. On one hand he had the responsibility to maintain and to improve the quality of a milk supply. To do this he had to work with the milk producer and assist him in any way possible so that the producer could and did comply with the sanitary requirements of his market. On the other hand, he was responsible to his plant management for milk procurement and assuring an adequate supply of milk, often in a very competitive market. I am sure that these diverse types of responsibilities presented a quandary to many fieldmen.

Their success in meeting these responsibilities in a proper manner can be attested to by the fact that in many markets the inspection activities of the dairy plant fieldman now serve as one of the official inspections meeting regulatory requirements. This certainly represents progress in trust and understanding between the regulatory agency and the industry being regulated.

Other types of positions sometimes carried the title of sanitarian. The inspection and regulation of sanitary conditions in eating establishments, the safety of water supplies, and, in a few instances, the regulation of housing conditions were the responsibility of sanitarians. Some trade associations had staff members listed as sanitarians. Their main function was to assist members with quality control problems, meeting regulatory requirements, and interpreting regulations as they applied to various aspects of sanitary processing operations.

To be sure, there were other types of positions that carried the title of sanitarian. I'm sure that I have not exhausted the list by any means. The above examples are given to illustrate how some sanitarians were employed, and the types of responsibilities they had.

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The background and training of these persons varied considerably. In more instances than we care to recall, their main qualifications for the position that they held was that they were related to the local city alderman, or had been active in the mayor's campaign. A few of the dairy plant fieldmen were former dairy farmers who for various reasons were no longer dairying. However, these examples represented a very small minority. The large majority of sanitarians were dedicated people doing the best with whatever background and training they had. A few had completed a vocational agriculture course in high school. Most of those with a college degree had been trained in either dairy husbandry or dairy industry. A few had degrees in public health. Very few held advanced college degrees.

No matter what their background, training, or level of education, they did have certain things in common. For the most part the terms environmental sanitation, air pollution, noise pollution, urban sprawl, environmental impact statements, radiation standards, thermal pollution, inner core, disadvantaged persons, mass feeding, compactors, shredders, sanitary landfills, and instant replay were not part of their vocabulary and had not become an integral part of their lives.

#### THE NEW SANTARIAN

What I have been leading up to, in a rather lengthy but not very devious manner, is the fact that the title of sanitarian in 1973 carries a much different connotation than it did a few decades ago. Today a person interested in a career as a professional sanitarian has a much greater diversity of employment opportunities than did the sanitarian of the preceding generation. At the same time the training and educational needs are different, and the complexity of the challenges and problems he will face are much different.

Where are the opportunities in the profession today? Many of them are with federal and state agencies. The past few decades have seen a proliferation of these agencies and a vast expansion of existing agencies. A brief look at the expansion of the Department of Health, Education, and Welfare will illustrate this point. New agencies have been created. The Environmental Protection Agency is a good example at the federal level. The same is true in state governments. All of these agencies employ sanitarians of various types. My office frequently receives employment notices from many of these agencies indicating that they have openings for sanitarians. They are asking us to suggest qualified applicants for these positions. I am sorry

to say that often I cannot respond to these requests as I know of no available qualified person at the time. I am sure that this same situation exists in similar departments in other universities.

There are many opportunities for employment as sanitarians in the food industry. Sometimes they list the position as being in quality control, but the specific duties are those of a sanitarian. As it becomes necessary for food processors to meet good manufacturing practice standards, it also becomes necessary that they have available the services of professional sanitarians. If the industry is of sufficient size, they employ the sanitarian as part of its staff. If not, this service may be hired from an organization operating for this purpose or the industry may call on its trade association for this service.

With the increasing public interest in air and water pollution, agencies, both public and private, are hiring sanitarians for investigative and control work. Waste disposal, both solid and liquid, is a major problem facing most communities in our country. Sanitarians are being hired as part of the teams of experts coping with these problems. With the proliferation of health care facilities and an increasing awareness of these needs there will be an increasing need for sanitarians to service these facilities. There seems to be no lack of opportunities for careers as sanitarians. The problem is to find enough qualified personnel to fill these positions.

#### TRAINING FOR THE NEW SANTARIAN

What type of formal training should a sanitarian have to qualify for the profession. By this I mean formal training in an educational institution. The continual upgrading and updating of the profession by means of short courses, on-the-job training, conferences, and seminars are other matters that I will touch on later.

There are very few educational institutions in this country that have a complete curriculum and are training sanitarians *per se*. It appears that the young person desiring a career as a professional sanitarian should work toward the initial degree in either food science, public health, or sanitary engineering. No matter which curriculum he chooses to follow, he should enroll in an institution that would permit him to take courses in the other pertinent areas. This is a slow process requiring 4 to 5 years of college level training, followed by a period of on-the-job training and experience before the individual can perform in a manner expected of a professional sanitarian. In the meantime, the need for sanitarians has been increasing at a much faster rate than the

number of people being trained for this profession. This has made it necessary for many agencies needing sanitarians to employ persons trained in some other discipline and then attempt to give specific training by on-the-job experience.

An example to illustrate this point has been the situation confronting the Federal Food and Drug Administration (FDA). As many of you know, the FDA has been expanding its field staff during the last several years. For the past 5 years the Department of Food Science of the University of Wisconsin, under a contract with FDA, has offered a special short course entitled "Bacteriological Sanitation Course for FDA Inspectors." The aim of this course is to give specialized instruction relating to problems associated with bacteriological sanitation and inspection in food processing plants. At the start it was a means of professional improvement for some of the FDA field staff. Many of the persons in the original session of the course had been employed in field activities for several years. In the last few years, most of the participants in the course have been employees with limited field experience. In reviewing the educational background of persons enrolled in this short course we find that approximately 60% received their basic training in the biological sciences, 13% in chemistry, 11% in agriculture, 3% in food science, and the remaining 13% in such diverse fields as the social sciences, humanities, education, and the physical sciences.

Basically, these people are regulatory sanitarians. Their main mission is protection of the health and welfare of the consumer. They are doing an excellent job. However, to fill the needs it has been necessary for the FDA to hire people with various educational backgrounds and then depend heavily on on-the-job training and special courses to give these employees the technical expertise needed to perform their field activities. I believe that the FDA is to be commended for taking action such as this in attempting to meet the challenge of the responsibilities that are assigned to this agency of the federal government.

#### TRAINING AFTER COLLEGE

This brings me to the final point that I would like to make. It appears that there are not enough young people being trained for the many career opportunities open to the professional sanitarian. These opportunities are many and varied. I do not believe that there is one particular curriculum that will adequately train an individual so that he is qualified to meet the needs of all of these profession-

al opportunities. As mentioned previously, I believe that training in food science, public health, and sanitary engineering supplies much of the basic training needed, but this is only the basis or foundation for additional training.

Since it is obvious that employers must turn to persons with other types of training if they are to meet their needs for sanitarians, this may be the time to make a few suggestions. Colleges or universities having the proper expertise and facilities in different geographical areas of our country should be encouraged to develop short courses, conferences, and seminars to give specialized training to meet the needs of the professional sanitarian. These would be either credit or non-credit courses that would enable a person with a sufficient background to concentrate and specialize on a study of subject matter that is essential if he is to be professionally qualified as a sanitarian.

There are educational institutions that are now doing this in some form or other but it has been on a rather piecemeal and unorganized basis. Many educational institutions would be willing to cooperate in a venture of this kind, but need the encouragement and backing of a professional group to get it started. *This is where the International Association of Milk, Food, and Environmental Sanitarians can perform a valuable service. This organization, through an educational committee, could help develop the necessary type of specialized courses and curricula. This committee could work with the institutions that are interested. It could help the concerned departments get the backing of their administration for courses and conferences of this type. It could help recruit students and, if necessary, could sponsor scholarships. Also, the Association could serve as liaison between the potential employers and employees.*

Just as the problem of sanitation registration was a great concern to this group several years ago, professional development should be of great concern now. There will be an increasing need for qualified sanitarians. We cannot depend on chance to fill this need. It is time for IAMFES to become active in finding a solution to this ever-increasing problem. *I urge this organization in its Board and business meetings to give this problem serious consideration. It should take the leadership in search for solutions to the problem.* I am sure that I can speak for my colleagues in various colleges and universities when I say that we are willing to meet with you, explore with you, and work with you in finding ways and means to meet this challenge.