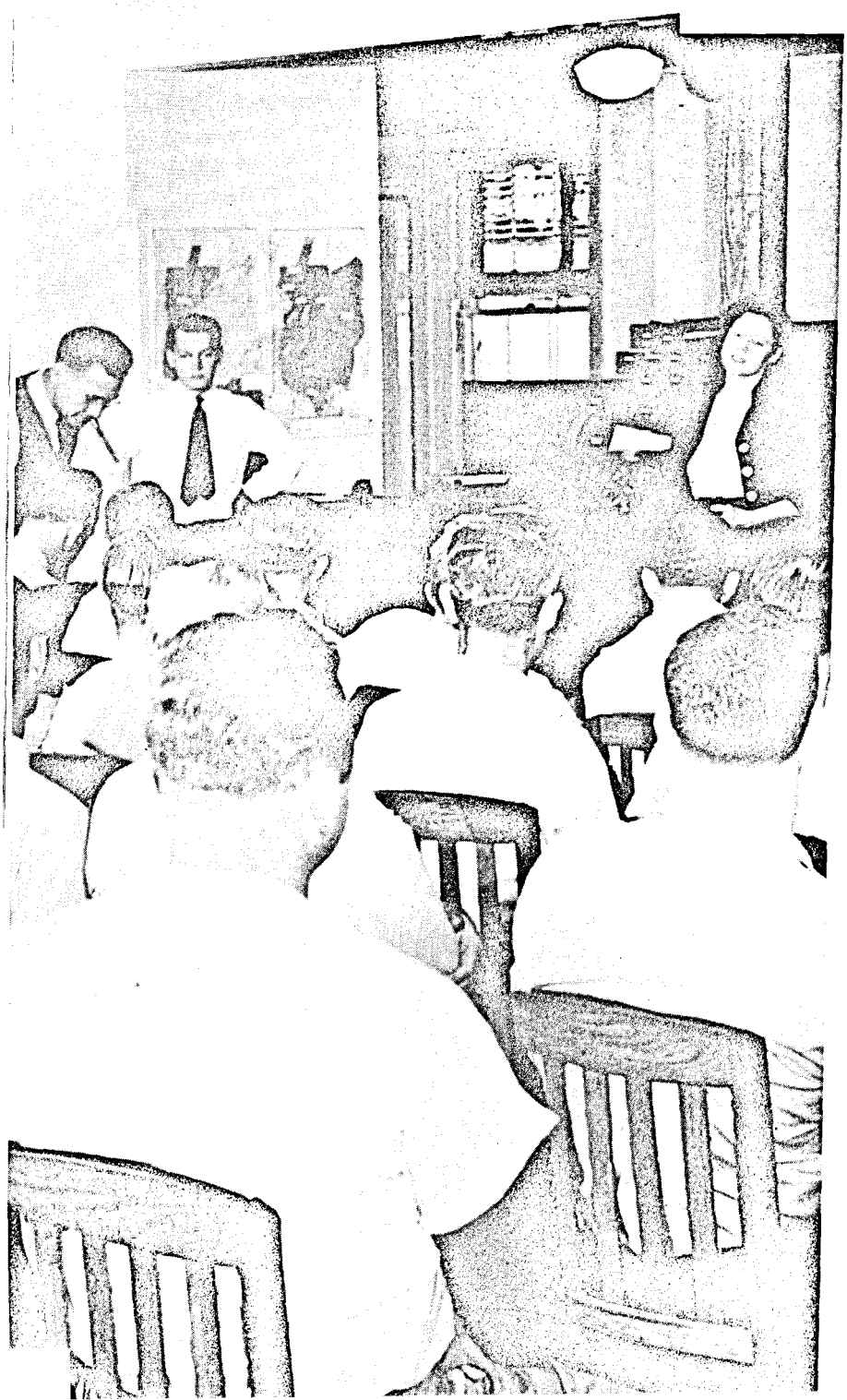
COLUMBUS, GEORGIA PUBLIC HEALTH TRAINING CENTE



Since its organization, the Communicable Disease Center has continued and expanded Training Division activities. The organization and development of the Public Health Training Center in Columbus, Georgia, as pictured in the following reports provides a typical example of this expansion to meet the needs for trained personnel.

In 1945, the first field training station in typhus control was organized in Atlanta in cooperation with state and local health departments. Since then, over two hundred new workers in the field of rodent-borne disease have received practical field work in regularly scheduled courses.

This practical field training proved so productive in developing new workers for these two fields of environmental sanitation that it was decided to establish a regional station which would afford field experience to graduate sanitary engineers.

Dr. J. W. Mountin, Bureau of State Services, and Sanitary Engineer Director Mark D. Hollis, Executive Officer in Charge, Communicable Disease Center, authorized the Training Division to proceed with the organization

• A review of activities and reports compiled by Ellis S. Tisdale

SANITARY ENGINEERS

SENIOR SANITARY ENGINEER
CHIEF, TRAINING DIVISION, CDC, ATLANTA, GEORGIA

of such a field training center at Columbus, Georgia in 1946. This authorization came after an invitation was received from the Georgia Department of Public Health and the Columbus-Muscogee County Health Department to establish the training center at Columbus.

On July 31, 1946, three officials — the Health Officer of the Columbus-Muscogee County Health Department, the Deputy Director of the Georgia State Health Department and the present author as Chief of the Training Division, CDC, U. S. Public Health Service — signed an agreement which provided for joint participation of state city-county health departments with CDC in the operation of a field training center for sanitary engineers.

In general the agreement was as follows:

Establishment of a field training area in sanitary engineering at Columbus-Muscogee County, Georgia — understanding concerning participation and cooperation between Federal, state, and local health departments.

To meet the need for practical field training in sanitary engineering, the Training Division, CDC, U. S. Public Health Service, has selected and will develop Columbus-Muscogee County as a sanitary engineering training area. It is planned to develop an accredited training program there because of the general excellence of the public health department, under the direction of Dr. J. A. Thrash, Health Officer, and J. A. Willman, Sanitary Engineer. Good facilities with respect to water filtration, sewage treatment works, stream sanitation studies, garbage disposal, milk and food sanitation are available.

A standard course, 12 weeks in length, will be devoted to practical field work in sanitary engineering. From time to time other short courses will be developed. The training area will be available to graduate sanitary engineers and other professional and sub-professional sanitation personnel from other states and foreign countries. No tuition will be charged. It is understood that sponsoring agencies, which may be states or agencies such as Institute of Inter-American Affairs or Rockefeller Foundation, will pay stipends and living expenses of trainees. Preliminary negotiations with the Columbus Health Department authorities indicate their willingness to assist in the administration and direction of the training activities . . .

1. Administrative Direction. Dr. J. A. Thrash, Columbus-Muscogee County Health Officer, will be director of the training program in sanitary engineering which is proposed for the Columbus-Muscogee County Area. It is understood that Sanitary Engineer J. A. Willman of the Columbus-Muscogee Health Department will direct the sanitary engineering phases of the work, assisted by personnel assigned by the U. S. Public Health Service. All administrative matters concerning both the U. S. Public Health Service and the Training Area will be addressed to or routed through the Director of the Training Area and the Chief of the Training Division, CDC, or their designated representatives. The State Health Department will be kept informed of developments in the training program.

2. Personnel — Equipment. The Training Division of the CDC, U. S. Public Health Service, will detail two professional workers to Columbus to serve as instructors for the training program. Their job is to absorb the main teaching load and handle practically all the details of the training activities. A secretary will be assigned to handle the office work. Laboratory equipment will be provided so that the trainees may carry out all the necessary tests in connection with public water supplies, sewerage, sewage disposal, stream pollution control, and milk and food sanitation. A small water laboratory will be equipped at the water works and a larger one, for all standard sanitary engineering laboratory work, will be equipped in quarters provided by the City-County Health Department. A laboratory technician will be provided by the Public Health Service to facilitate stream sanitation studies. The local health department will provide necessary quarters and utilities for the training activities.

3. Consultants for Training Program. In order to recompense the members of the Columbus-Muscogee County Health Department for services rendered in connection with the training program, it is agreed that Dr. Thrash, Mr. Willman, and other assistants who participate actively in the training program will be appointed as consultants to the training program. They will be paid by the U. S. Public Health Service on an hourly basis for the time devoted to the training activities.

August 2, 1946 — /s/
J. A. Thrash, M. D., Health Officer
Columbus-Muscogee County Health Department

July 31, 1946 — /s/
Guy Lunsford, M. D., Deputy Director
Georgia State Health Department

July 30, 1946 — /s/
Ellis S. Tisdale, Senior Sanitary Engineer
Chief, Training Division, C.D.C.
U. S. Public Health Service
(For the Officer in Charge)

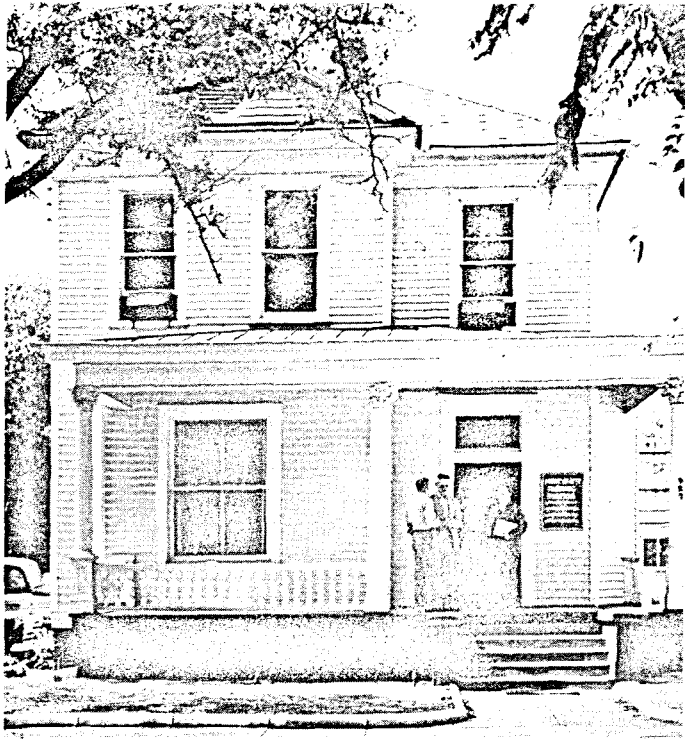
In the following months, the U.S.P.H.S. staff selected to operate the station was assigned to Dr. Thrash who was in administrative charge of this new training center. Sanitary Engineer C. D. Spangler was selected to head the sanitary engineering training staff. Professor John M. Henderson of Columbia University, New York City, accepted appointment as consultant to guide the training activities from the standpoint of their correlation with academic studies of graduate sanitary engineers.

Professor Henderson has emphasized certain aspects of the need for regional field training centers for sanitary engineers such as the role they can assume in speeding the transition of the sanitary engineer graduate into a productive member of the public health team. He estimates that through field training of three months, properly organized and conducted, a period of one to three years can be saved in making new personnel more immediately productive for public health service.

As a result of his consultant studies during the 1947 season's operation of this training center, he makes the following comments in a report on field experience observations at this new field training center at Columbus, Georgia:

VALUE OF FIELD EXPERIENCE AS A SUPPLEMENT TO ACADEMIC TRAINING GIVEN IN GRADUATE SCHOOLS OF PUBLIC HEALTH.

The great need for field experience is in the training of general practitioners in public health — health officers, engineers, and nurses with local health departments. In some specialities it is possible for a large measure of the requisite field experience to be obtained in conjunction with academic training, since academic training tends to be more vocationalized



State Health Department Engineer Eggert on a visit to the Field Training Station at Columbus, Georgia.

in character, and field training facilities can be feasibly provided by the institution in conjunction with local health departments. This is exemplified by courses for medical clinicians in tuberculosis, venereal disease, etc., where clinic practice can be adequately scheduled within the academic curriculum.

General practitioners, on the other hand, require comprehensive training. To provide this breadth of scope the academic institution must confine its training to principles, largely ignoring techniques. Moreover, even if time were available, it would not be feasible for any single academic institution to provide the elaborate mechanism and bear the heavy expense involved in establishing comprehensive field training facilities for relatively small numbers of students in each of the several basic professions. Provision of such facilities demands one central agency serving all graduate institutions in public health.

Organized, supervised field training possesses many advantages over field training acquired by job experience in public health. Since engineers completing graduate academic training may or may not possess prior experience in public health practice, field training should be considered separately as to its applicability to each group.

For the individual without prior experience, there exists a wide gap between the sheer knowledge acquired and the arts and techniques of applying this in practice. Until the latter have been gained, the individual is not a productive member of the public health organization. Few, if any, local health departments possess staffs of sufficient size and aptitude to provide the quantity and quality of supervision needed for the rapid and adequate "breaking in" of the inexperienced professional employee. As a result, the apprentice employee not only is non-productive for an inordinate length of time, but the character of his professional competency, once achieved, will reflect any weakness inherent in the local program to which he is assigned. Thus there is a tendency to perpetuate local inadequacies in health work.

The above discussion assumes that the organization to which the apprentice is assigned contains at least one other member of his basic profession. The typical local health department employing an engineer, however, often has only one such position in its table of organization. Moreover, this position may be at the head of a staff and the incumbent may be required to immediately supervise and direct a number of inspectors and sanitarians. Inexperienced engineers are so manifestly unsuitable for such assignments, and the shortage of experienced personnel available for appointment is so urgent, that a dislocation in personnel placement will occur. The large health departments with engineering staffs containing positions of junior responsibility then attract new candidates at the expense of smaller departments which are devoid of any engineering services at all.

In contrast, supervised field training of an intensive character, carefully planned, compresses into three months' time a normal

Training officers planning the three-months field activities at Columbus, Georgia.

experience equivalent of one to three years, thus making available new candidates who are immediately productive. In addition to the practical experience acquired, an essential value of field training is the instilling of confidence in the young engineer by giving him a sense of proficiency before he launches into practice. This is of great importance at this stage of his career. After-benefits may accrue throughout his professional life.

During his customary one to four years of experience, the engineer with prior experience who returns to an academic institution for postgraduate training usually will have acquired competency in the practice of one to two of the dozen recognized fields of environmental sanitation. Interest in graduate education by the engineer in local health work generally is toward obtaining more comprehensive training -- an exposure to fields of environmental sanitation in which he is not yet qualified. To establish competency, field application of this newly acquired knowledge is indicated. This can best be obtained by attendance at an organized field training course, since only in such a program is the desired range in field of practices and of geographic locations available.

The decision of the U. S. Public Health Service to set up and operate an acceptable field training program for public health engineers had its roots in two factors: 1) the dire shortage of qualified personnel to fill existing vacancies, and 2) the essential need for field experience to supplement academic training in the production of competent public health engineers.

Lack of existing field training facilities was another fundamental consideration. In this respect the field training of engineers poses a problem in marked contrast to that of the sanitarian and the nurse, being far more complex in character. As stated in a recent committee report of the American Public Health Association[1]: "The engineering profession is parallel and not subordinate to the medical...there being no quarrel with the medical executive tradition." The responsibility of the public health engineer to render competent service in not one or two, but many of the numerous specialized fields of environmental sanitation; the professional technologies involved; his largely independent responsibility for administering work lying outside the physician's field of professional competence; and the smaller number of engineer trainees by comparison with medical health officer, sanitarian and nurse trainees, all tend to discourage state health departments from establishing acceptable field training

[1]Report on Committee on Municipal Public Health Engineering. American Journal Public Health XXXVII (7): 901-6, (p. 903) July 1947.

stations for engineers. Thus there are far fewer established field training facilities for engineers than for any other profession or sub-profession basic to the local health department.

This situation has impressed the Public Health Service and others with the need for establishing training facilities which would serve groups of states. Such regional centers on the one hand should serve a sufficient area to justify an adequate quantity and caliber of personnel in charge of field training. On the other hand, the regional, rather than the national, training center will best orient the trainee in the underlying social, economic, and epidemiologic conditions indigenous to the geographic area in which he will practice, which conditions so greatly modify local health department procedures.

The first regional training center was established at Columbus, Georgia in 1947, graduating the first class in September of that year. While Columbus is the central headquarters, the training area encompasses over 10,000 square miles of terrain lying in two states. This area contains three principal sub-centers in addition to the main headquarters, and over 200 communities ranging in population from 100 to 250,000 which may be visited to obtain diversified experience in the total regional range of problem and practice in environmental sanitation...

TYPE OF TRAINING.

The character of training provided comes under the heading of Supervised Field Experience, which has been defined as follows:[2] Planned instruction, observation, and active participation in a comprehensive organized public health program as an integral part of or a sequel to formal academic training in public health.

Greatest emphasis is placed on active participation; the student group is divided into teams of two men, each accompanying a member of the local health department on his appointed rounds. By a system of rotation, the entire program of environmental sanitation is participated in by each team in each of several local health departments. Independent problems are also assigned where feasible; these are performed by the individual student or team. The training staff briefs the team before each mission and queries the members on their return. Frequent group discussions are scheduled when points in question are clarified and improvements in prevailing practices by the trainees and local health department personnel are brought out.

Observation and participation assignments by groups larger than the team are arranged exceptionally when team visits are unnecessary or infeasible. Didactic instruction can be dispensed with since field training not only follows graduate academic instruction but is given immediately after the close of the academic year.

The local health departments in the training area are not subsidized by special funds accruing by virtue of the field training activities, thus avoiding an artificial environment. In quality and adequacy these local units cover a wide range, aiding the student in acquiring a perspective; but sufficient experience is obtained by the trainee in the better organizations to foster the development of competent practitioners.

Planned instruction is provided by the training staff composed of personnel possessing breadth and length of experience in local health work and advanced academic training in public health. Beyond this, each has a specialized proficiency in two or more sanitary fields.

Training Officer in Charge C. D. Spangler gives the following general outline of the three-month field training program at the Public Health Training Center:

GENERAL OUTLINE OF THREE MONTHS FIELD TRAINING PROGRAM AT PUBLIC HEALTH TRAINING CENTER.

The trainee in public health engineering

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[2]Report of Committee of Professional Education, American Public Health Association on Field Training of Public Health Personnel. American Journal Public Health XXXVII (6): 709-14 June 1947.

reports to the training center, a two-story wooden dwelling house converted into offices, class and conference rooms, and a chemical and bacteriological laboratory. Here the training staff, consisting of two sanitary engineers, a sanitarian, a clerk, a laboratory technician, and a "handy" man, is stationed. In addition to the water and milk laboratory here, a small laboratory has been built at the Columbus water filtration plant for use of the sanitary engineering trainees.

In general, the first week of the training program is given over to general orientation of the work of the local, state, and Federal public health services.

During the second, third, and fourth weeks, when the field assignments primarily cover work in water filtration, sewage treatment, and stream sanitation, the laboratories are used extensively.

The fifth and sixth weeks are devoted to milk production and pasteurization and to food sanitation. Here, as in the field of water treatment, the trainees have ready access to the farms, the milk plants, and the dairies to carry out practical assignments each day.

During the seventh and eighth weeks the trainees are assigned to nearby Fort Benning and to Albany where sanitary land fill, insect and malaria control, and rural sanitation practice are given. The Training Division of CDC makes available automotive equipment to enable the trainees to carry out their daily assignments.

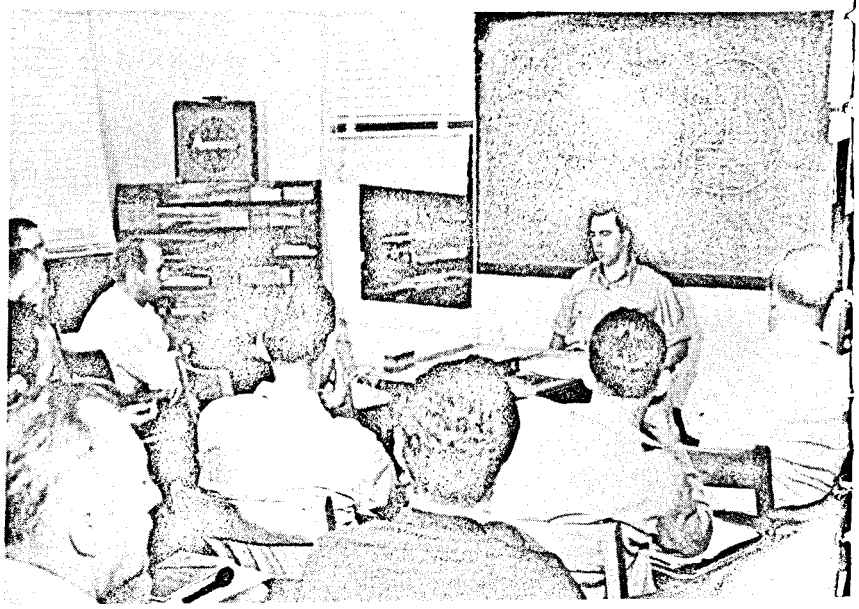
On each Friday afternoon during the course all the trainees assemble at headquarters for a discussion and briefing on the work for the following week. Saturday mornings are reserved for discussions and the showing of motion pictures and film strips.

Since trainees are teamed up in groups of two for daily assignments with a change of team mates taking place each week, each man gets an opportunity to work with each other trainee on some phase of the field work.

It has proved quite advantageous to have the training station headquarters separate from the operating health department, but near enough for convenient conferences. The training stations are located just across the street from the County Court House where the Health Department staff has its headquarters.

The U.S.P.H.S. officers absorb practically all the teaching load. An arrangement has been worked out to have certain regular health department staff members appointed as consultants to the training staff. They are paid on an hourly basis when they act in the capacity of instructors for the trainees on field work.

As a result of the first three-months course one important conclusion was reached, namely — that it was absolutely essential for the field training staff to act with the full confidence of the operating staff and have ready access to all facilities within the training area. This includes the city water plant, the government-owned sewage disposal facilities at Fort Benning, the privately-owned pasteurization plants in the city, and where possible, privately-owned restaurants, industrial plants, and the many other facilities. Also, it was clear that there were many advantages in using malaria, fly control, and rural sanitation facilities at Albany and taking advantage of the typhus and rodent control



Training officer briefing class before day's field work.

program being carried out in Atlanta by the City Health Department. Thus, several areas, in addition to Columbus, are needed to afford the necessary field experience for sanitary engineer trainees. The entire time of the six full-time persons on the training staff was taken up in giving adequate field instruction to the 17 public health engineers in training. The small amount of time spent by the operating health department staff in no way interfered with their duties. In fact, it added to the *esprit de corps* of the entire health department to have the training program in operation.

Training Officer Spangler further set forth in his report the following elements in the 1947 training course.

COURSE CONTENT TO ACCOMPLISH OBJECTIVES OF FIELD TRAINING.

Certain basic assumptions concerning prospective trainees were made as follows: that the engineers would be Sanitary Engineers and would have a relatively broad academic background in the field of public health. They should have a good knowledge of the following subjects:

(1) Public water supplies
(2) Public sewer systems and sewage treatment methods
(3) Stream pollution
(4) Public health administration and vital statistics
(5) Epidemiology
(6) Bacteriology
(7) Environmental sanitation
(8) Insect and rodent control
(9) Food and milk control

It was presumed that the sanitary engineering trainees would benefit by a course covering the following subjects:

(1) Water plant operation
(2) Sewage treatment plant operation
(3) Food control
(4) Milk control
(5) Insect control
(6) Rodent control
(7) Garbage and refuse disposal
(8) Swimming pool operation
(9) Rural water supplies
(10) Rural sewage disposal
(11) School sanitation

Accordingly, a proposed outline of the course was drawn up as follows:

I. Water
  A. Rural water supplies
    1. Wells — dug, drilled, driven, and bored
    2. Springs
    3. Cisterns
    4. Small pressure systems
  B. Municipal water supplies
    1. Surface — complete treatment and reservoirs
    2. Ground — water softening and iron removal
    3. Distribution system
    4. Cross-connections

II. Sewage
  A. Rural sewage disposal
    1. Privy
    2. Septic tank system and cesspools
    3. Small Imhoff tank and sand beds
  B. Municipal sewage disposal
    1. Dilution
    2. Imhoff tank — trickling filter — fixed and rotary
    3. Primary settling—trickling filter (separate sludge digestion)
    4. Biofiltration and Aerofilter and Accelofilters
    5. Activated sludge
    6. Chemical treatment
    7. Collection system
  C. Stream pollution and industrial wastes

III. Garbage and refuse disposal
    1. Incinerator
    2. Sanitary land fill
    3. Dumping
    4. Hog farm
    5. Collection systems

IV. Swimming pools
    1. Fill and draw
    2. Recirculation
    3. Natural bathing areas

V. Ice plants

VI. School sanitation — air borne con-

taminants — ultra violet

VII. Industrial hygiene and safety — heating, lighting, and ventilation

VIII. Housing, building codes and plumbing. Rural and urban surveys

IX. Food and meat. Food handlers and shellfish

X. Milk — producers and pasteurizing plants — cost figures

XI. Insect and rodent control — malaria and typhus

XII. Administration, organization and functions of engineering activities in state and local health departments. Public health education — promotion programs. Operation of rest of health department.

SUBJECTS AND TIME DISTRIBUTION

Water	2	Weeks
Sewage	2	"
Garbage & refuse	1/3	"
Swimming pools	1/3	"
Ice plants	1/3	"
Schools	1/2	"
Industrial hygiene	1/2	"
Housing, etc.	1	"
Food	1	"
Milk	1	"
Insect and rodent	2	"
Administration	1	"
TOTAL	12	"

In working out the details of the actual course schedule, it was believed that trainees would have previously had sufficient academic instruction so that they would be able to receive field training experiences with very little preliminary discussion on the part of the training station staff. It is felt that it is far more desirable for men to work in small groups of only two or three men each rather than in large groups. Accordingly, the bulk of the field work is set up on an eight weeks basis. Each week encompasses a separate unit. It is planned to have two or three men on each team with a total of eight teams in the field at once, with each team working on a different week's activities. Before the men engage in this team work, one week is spent with the entire group in a general orientation of the local health department and of the training course itself. The final three weeks of the twelve-weeks course are spent with the group all together doing things which could be done better in a large group rather than in teams. Since the men's backgrounds, both in previous experience and in training, are different, it is desirable to switch team mates whenever possible so that the men can have an opportunity to work closely with as many of the trainees as possible, instead of working with the same team mate for the entire eight weeks.

TRAINING FACILITIES — STAFF QUALIFICATIONS — BUDGET

The headquarters office of the Training Center is a two-story frame structure. This building, with essential utilities, was made available by the City-County Health Department.

Available space in this building consists of one room, 16′ x 16′, which serves as the office for the teaching staff; a smaller drafting room and auxiliary office; a large classroom, seating 25 trainees; a conference room, seating 20 persons; a laboratory for class work; and a laboratory preparation room.

The Training Division, Communicable Disease Center, U.S.P.H.S., has provided the training staff consisting of two graduate sanitary engineers and one graduate sanitarian. The training officer in charge has completed postgraduate work in public health and bacteriology, and has served in state health department district offices both in the mid-west and in the south. He has had experience in the U. S. Public Health Service in the west for several years, which brought him in close contact with local health department administration. Each sanitary engineer has had extensive experience in water and sewage treatment, insect and rodent control, and public health administration. The sanitarian is well qualified by training and

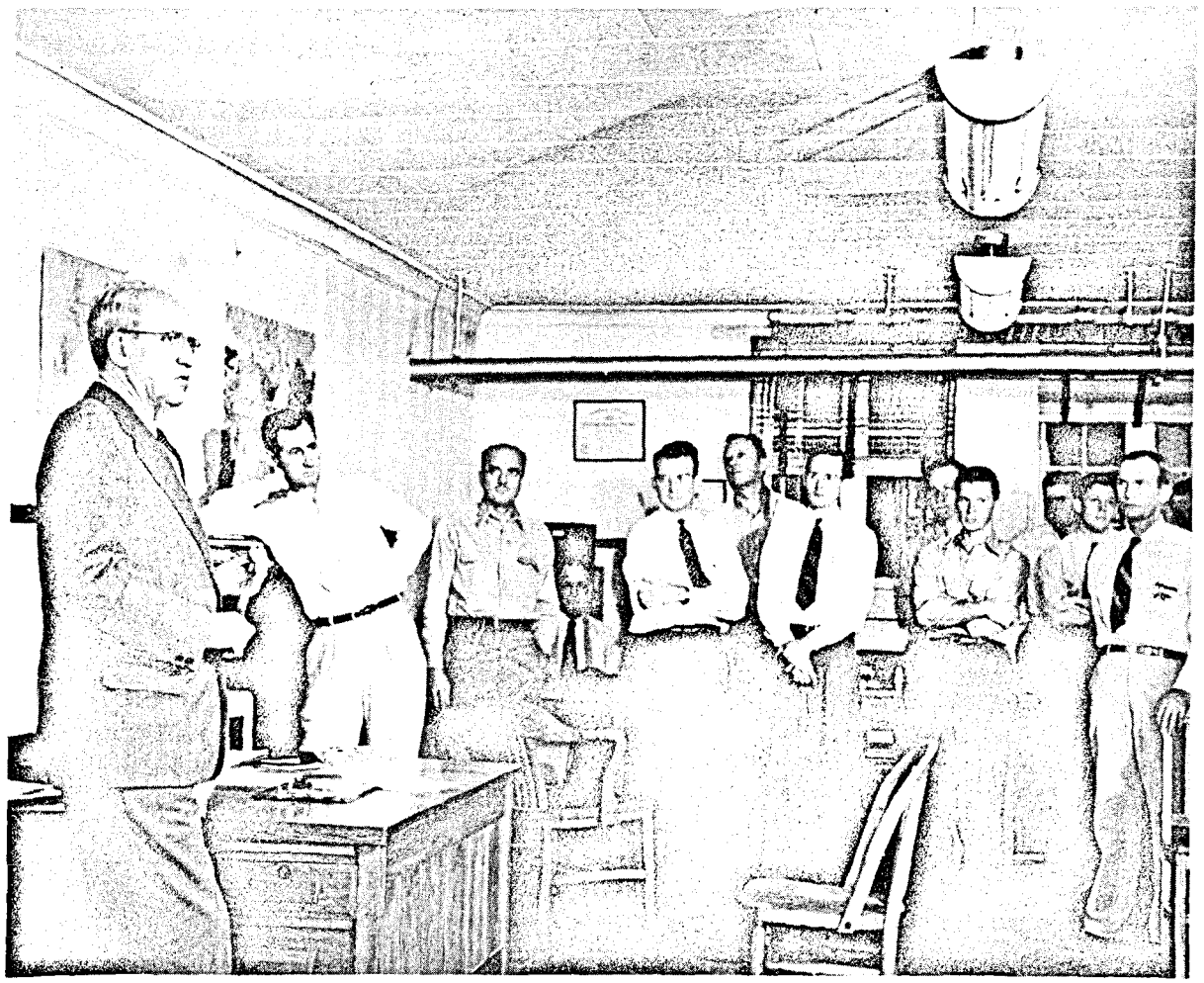
practical experience in milk and food sanitation activities.

The training officers utilize the staff in the operating health department program, from time to time, as consultants and for supervisors to trainees. These persons are paid for their services on an hourly basis, in accordance with a schedule approved by the state and local health departments.

Assistance in handling the daily routine operation of the training center is given by three additional employees assigned by the U.S.P.H.S. — an experienced laboratory technician, a secretary, and a general mechanic. The latter is responsible for all equipment used in the training activities, including spraying equipment, motors, boats, and cars to transport trainees; and for demonstrations in connection with privy construction, pipe work at water works, and similar activities.

In addition to the summer training program for 17 graduate sanitary engineers, two three-months field training programs for sanitarians were operated during the spring and fall months. The fall class included 22 sanitarians from seven states. Operating a spring and fall sanitarian course and a summer sanitary engineering field training course reduced the unit cost of field training and kept the training load on a fairly even basis.

Training station director orienting class during first week at Columbus.



DAILY SCHEDULE OF SANITARY ENGINEERING

WEEK		A	B	C	D	E
DATES		June 23 — 28	June 30 — July 5	July 7 — 12	July 14 — 19	July 21 — 26
SUBJECT		**Registration & Orientation**	**Municipal Water Supply**	**Privy Water Supply Industrial Hygiene**	**Sewage & Small Water**	**Food Sanitation**
MONDAY	A. M.	Registration. Personal Interview. Housing	Survey of Plant and Laboratory at Columbus Water Plant	Pit Privy Project	Ft. Benning Sewage Plant	Inspections with Sanitarian A
	P. M.					Inspections with Sanitarian B
TUESDAY	A. M.	Quiz. Course Orientation & Schedules	Filters	Field trip to Hamilton, Manchester, Wm. Springs Foundation on water and sewage treatment plants	Stream Pollution	Inspections with Sanitarian C
	P. M.		Details of operation			Inspections with Sanitarian D
WEDNESDAY	A. M.	County, State & Federal Health Organizations.	Mechanical equipment at Columbus Water Plant	Field trip to Ft. Benning, Phenix City and Opelika on Water and Sewage Treatment Plant	Buena Vista & Ellaville Water Plants. Richland, Lumpkin Water Plants and Septic Tank	Individual Inspections
	P. M.	Visit Local Health Dept.				
THURSDAY	A. M.	Conference with Nursing Supervisor	Field trip to Greenville & Fairburn Water Plants & Water, Sewage & Swim. Pool in Newnan	Industrial Hygiene Survey	Industrial Waste Survey	Individual Inspections
	P. M.	Field visits with Nurses				
FRIDAY	A. M.	Review of Principles of Sanitation	Report of Surveys and Laboratory	Industrial Hygiene Survey & Report	Industrial Waste Survey continued	Submit Reports
	P. M.	Briefing and discussion	Briefing and discussion	Briefing and discussion	Briefing and discussion	Briefing and discussion
SATURDAY	A. M.	Films and discussion	Talks by trainees Films and discussion	Talks by trainees Films and Discussion	Talks by trainees Films and discussion	Talks by trainees Films and discussion

TRAINING COURSE AT COLUMBUS, GEORGIA

F	G	H	I	J	K	L
July 28 — Aug. 2	Aug. 4 — 9	Aug. 11 — 16	Aug. 18 — 23	Aug. 25 — 30	Sept. 1 — 6	Sept. 8 — 12
Milk Sanitation	**Refuse Disposal Schools Swimming Pools Ice Plants**	**Malaria Control (Albany)**	**Typhus Control (Atlanta)**	**Housing and Sanitary Survey**	**Roundtable Discussions**	**Summary**
Inspect Dairy Farms with Milk Inspector	Inspect Sanitary Land Fills	Starting of Drilled Well	Introduction to Typhus Control	Health and Housing	LABOR DAY	Roundtable Discussion on Garbage and Refuse
	Inspect and report of Ice Plants	Residual Spray operations	Rat trapping and poisoning	APHA Appraisal Form		
Inspect Dairy Farms	Swimming Pool Inspections	Septic Tank Installations	Rat Bleeding and combing	Sanitary Survey of Small Community	Milk Grading Programs & Dairying Problems	Establishment of County Sanitation Program
Observe milking			Rodent Control Program			
Inspection of Short-time high temperature Pasteurization Plant	Observe Columbus Insect Control Program	Entomological Control of Insect Control Programs	Rat Proofing	Survey continued Report	WATER Plant Operators	Continued
Inspection of Holding Method of Pasteurization	School Survey Continued	Larvicidal Operations	Estimation and DDT dusting in field	Housing Programs & Legislation	SEWAGE Plant Operators	Course Review
		Finish Drilled Well		Urban Redevelopment		Examination
Laboratory and Reports	Report of School Survey	Resume of Insect Control and Program Planning	Cost Studies	Abattoir Inspections. Rabies Control	Health Education	Review Exam. & Course
Briefing and discussion	Briefing and discussion	Return to Columbus	CDC Activities. Return to Columbus	Plumbing & Building Codes, Shell Fish		
Talks by trainees Films and discussion	Talks by trainees Films and discussion	Talks by trainees Films and discussion	Talks by trainees Films and discussion	Talks by trainees Films and discussion	Review of weeks work	