a great deal of technology and methodology which will be directly applicable to the technical solution of urban development problems.

We welcome you before the subcommittee, Dr. Rogers, and hope you will share with us how you expect HUD's program to develop. We are prepared to receive your testimony, Commissioner.

(The biographies of Drs. Tape and English follow:)

## DR. GERALD FREDERICK TAPE

Dr. Gerald F. Tape was born in Ann Arbor, Michigan on May 29, 1915. After receiving his A.B. degree at Eastern Michigan University in 1935, he entered the University of Michigan, where he received his M.S. degree in physics in 1936 and his Ph.D. in 1940.

In 1939, Dr. Tape was appointed instructor in physics at Cornell University, where he was associated with the cyclotron research group. From 1942 to 1946 he was on the staff of the World War II Radiation Laboratory, Massachusetts Institute of Technology, where he worked on the development of airborne radar, radar relay, and training equipment for radar operators. During 1944 and 1945, he directed the airborne radar work of the MIT Radiation Laboratory in Europe, operating primarily with the U.S. Eighth Air Force from laboratory head-quarters in Malvern, England. In 1946, he became a member of the University of Illinois staff, serving first as assistant professor and later as associate professor of physics. He was in charge of the administration and teaching of engineering physics courses and also continued his work in nuclear physics and cyclotron development.

Dr. Tape became associated with Brookhaven National Laboratory, Upton, Long Island, N.Y., in 1950. He served as Deputy Director from October 1951 to May 1962, during which time he was involved in all scientific, technical and administrative aspects of the laboratory's program. In January 1962, he was appointed Vice President and in October 1962 President of Associated Universities, Inc., the corporation which operates the Brookhaven National Laboratory for the Atomic Energy Commission and the National Radio Astronomy Observatory for the National Science Foundation.

Dr. Tape appointed to the Atomic Energy Commission by President Kennedy

Dr. Tape, appointed to the Atomic Energy Commission by President Kennedy, took office on July 15, 1963; his term of office expired on June 30, 1966. Dr. Tape was reappointed by President Johnson for a term expiring on June 30, 1971.

## Dr. Spofford G. English

United States Atomic Energy Commission, Washington, D.C. Chemistry. Mt. Pleasant, Tenn., Nov. 16, 1915; m; c.3. B.S., Oklahoma, 38, M.S., 40; Ph. D. (Chem.) California, 43. Chemist, Okla. Geol. Surv., 36–40; Asst. Chem., Univ. of California, 40–42, Res. Assoc., Metal. Lab., Univ. Chicago, 42–43; Sect. Chief, Chem. Div., Clinton Labs, Oak Ridge, 43–46; Asst. Prof. Chem., Univ. of California, 46–47; Chief, Chem. Br., Div. Res., U.S. Atomic Energy Comm., 47–60; \*Dep. Dir., Div. Res., USAE, 60–61; \*Spec. Asst. to Gen. Mgr. for Disarmament, USAEC, 59–61; (\*Dual Capacity); Asst. Gen. Mgr. for Res. & Dev., USAEC, 61–; Member, U.S. Delegation to UN Disarmament Conference—London—1955; Member, U.S. Delegation to UN for drafting of Statute of International Atomic Energy ber, U.S. Delegation to UN for drafting of Statute of International Atomic Energy Agency, N.Y.—1956; Member, U.S. Delegation to International Conference on Cessation of Weapons Tests, Geneva-1959; Outstanding Service Award, USAEC, 1956; Sigma Xi; Phi Beta Kappa; physical Chemistry; nuclear chemistry; chemical kinetics; research and development of radiation detection instruments; administration of research.

STATEMENT OF DR. GERALD F. TAPE, COMMISSIONER, U.S. ATOMIC ENERGY COMMISSION; ACCOMPANIED BY DR. SPOFFORD G. ENG-LISH, ASSISTANT GENERAL MANAGER FOR RESEARCH AND DEVELOPMENT

Dr. Tape. Thank you very much.

The Atomic Energy Commission appreciates this opportunity to appear before you and discuss with you some of these problems of con-