PROFESSIONAL QUALIFICATIONS

DENNIS RATHBUN

U. S. ATOMIC ENERGY COMMISSION

I am Dennis Rathbun, Cost-Benefit Specialist on loan to the Directorate of Licensing, AEC Regulatory Staff from Sandia Laboratories, Livermore, California. I joined the Cost-Benefit Branch in July, 1973. My responsibilities include review of the cost-benefit chapter and other related material in environmental reports submitted by applicants. I have prepared several sections for inclusion in the draft environmental impact statement for Bellefonte Nuclear Power facility. These sections included forecasts of the economic impacts on load land values and agricultural production, and impacts on the costs and quality of local government services. I also provide technical assistance in the cost-benefit area to other branches within AEC Regulatory. In this regard I have reviewed a proposed guide for assessing the spillover costs of transmission lines; in my response, I discussed methodological problems in capitalizing amenities in land and real estate values. In addition, I am responsible for and have made contributions in generic research helpful in performing cost-benefit analysis. In particular, I authored a memorandum on the time trend of capacity factors for a sample of large, commercial nuclear and non-nuclear power plants. I have prepared written testimony for the Three

Mile Island Nuclear plant operating license public hearing regarding the costs of emergency planning and the costs of alternative facilities to rate payers.

During the period 1963-68 I took a total of ten undergraduate and graduate courses in economics at the University of Maryland and San Jose State University. These courses covered a broad spectrum of the economic field. In 1968 I enrolled in the Doctoral program in economics at the University of California (Berkeley). I have completed the course work for the Ph.D. degree and am preparing a dissertation entitled Public Finance Aspects of Large Scale Community Development; the research for this dissertation is essentially complete. This topic includes a systematic analysis of the local public interest and planning aspects of new community development and land use in California. The assessment includes the needs for public roads, sanitary waste treatment facilities, water system improvements, parks, schools, fire and police protection and the provision of other local public services.

I received a Bachelor degree in electrical engineering from the University of California in 1960 and a Master's degree in electrical engineering from the Catholic University in Washington, D. C. in 1965. My major subject area in graduate engineering was electrical systems analysis. I have also

completed a number of graduate courses in probability, statistics, and econometric analysis as a minor subject area in both the engineering and economics curricula described above.

I have been employed by Sandia Laboratories since 1965 as a member of the technical staff. My work has been primarily in technology development for the testing of nuclear systems. Since 1968 I have worked in the area of nondestructive test engineering. I have made contributions in technique development which are in use in the areas of eddy currents and ultrasonics. I have work experience in dye penetrant testing and radiography.

Prior to 1968, my principal work area was in the development of electrical test technologies and instrumentation. I developed a single transient analyzing system using superconductive cable operated at cryogenic temperatures.

I served as a general line officer in the U. S. Navy during the period 1960-1965. During 1960-62, I was assigned to the USS OKANOGAN and performed engineering and administrative duties.

In the period 1962-1965, I taught a number of courses while assigned to the Science Department faculty of the U. S. Naval Academy. I left the service in June 1965 with the rank of Lieutenant.

I have written a published article based on my research in acoustic emission entitled Testing of Filament Wound Spherical Test Shapes Via Acoustic Emission. Also I co-authored an article assessing the potential use at low temperature of superconductive cable for long distance data transmission; the title of the article is Data Transmission Through the Use of Miniature Superconductive Cables. I am a member of the IEEE professional society.