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POSITION STATEMENT OF DR. JOANNA BURGER
PSE&G Early Site Permit Application – Salem Nuclear Plant

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My Professional Background: I am Professor of Biology at Rutgers, where I have taught biology for over 35 years, and conducted research in New Jersey and elsewhere. I am an ecologist with a PhD from the University of Minnesota, and an Ms from Cornell University. I am also a member of the Environmental and Occupational Health Science Institute, and on the faculty of UMDNJ- School of Public Health. I am a Fellow of the American Ornithologist's Union, The International Ornithological Union, AAAS, and the International Union of Pure and Applied Chemistry. My research interests are in coastal and Pine Barrens ecosystems, specializing on vertebrate ecology, eco-toxicology, and the mitigation of human activities on ecosystems and the species within them. I have written or edited over 20 books, and 500 research articles in refereed journals, and am on the Editorial Boards for several journals (*Environmental Research*, *Environmental Monitoring and Assessment*, *Environmental Indicators*, *Journal of Toxicology and Environmental Health*, and *Renewable Energy*). For 15 years I have worked with the Department of Energy examining ecological effects at their former nuclear weapons plants (Hanford, SRS, Oak Ridge, and others). I have served on several National Academy of Sciences committees and Boards (Board on Biology, Board of Environmental Science and Toxicology), for EPA, and for the Nuclear Regulatory Commission. I was awarded the Brewster Medal from the American Ornithologist's Union, and the Distinguished Service Award from the Society of Risk Assessment, as well as the Conservation Award from the Conservation Foundation of New Jersey. I have sat on the Endangered and Nongame Species Council for the State of New Jersey since the late 1970s. I have also worked extensively with stakeholders, and am currently editing a book on Science and Stakeholders (for Springer, expected data Spring 2011).

My statement is based on extensive experience with environmental assessment, nuclear facilities, wind power facilities, stakeholder involvement, and extensive

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knowledge and experience with PSE&Gs environmental and restoration programs, as well as their Environmental Report.

Abstract of My Position. I have had the opportunity to observe PSE&Gs environmental policies and actions over twenty years, and their restoration and mitigation activities in support of the environment. I know of no company that has such a stellar environmental record, well beyond what has been required of them. Their environmental restoration activities are a model for other states and companies. I have read their Environmental Report, and given what I know about their past performance in habitat enhancement, I am confident that PSE&G will carry out their plans, and create much more habitat than is compromised by the new development. Further, the land that will be used for siting the new facility, is not currently natural high quality salt marsh or other habitat, but is already degraded. By in contrast, I have full confidence that the mitigation habitat will be a functioning, high quality habitat. I encourage the NRC to approve the Early Site Permit, and lend my support to PSE&G for its community-minded, and ecosystem-conscious approach to restoration and mitigation.

Statement. PSE&G has applied for an early site permit to construct a nuclear facility at the current Hope Creek NJ (Salem) Nuclear Plant. The new facility would be placed on its current property. The PSE&G Environmental Report addresses footprint issues, and the mitigations that will be performed in support of improving other lands. Much of the land that will be used for site construction of the new nuclear facility is degraded *Phragmites* wetlands, and as such, is not natural productive habitat.

Their mitigation efforts include identification of several candidate areas that may be selected for the development of a wetland mitigation plan for the restoration and enhancement in Elsinboro, and work with Mannington Marsh. Both of these habitats will be greatly improved by PSE&G's mitigation work, and the restored habitat will provide much higher quality habitat than is even possible with the planned construction site. The natural tidal flow in the planned restoration/mitigation habitat will lead to habitat with far greater wildlife use and ecosystem integrity. This part of the Delaware Bay ecosystem will be greatly aided by the restoration planned by PSE&G.

The Environmental Plan they present is sound, well-thought out, and sufficiently developed to ensure that it can accomplished. The Environmental Report is extensive, comprehensive, and devotes considerable attention not only to the environmental, physical, and ecosystem issues, but to appropriate public involvement and monitoring. As an ecologist I have been impressed with their due diligence in addressing all the outstanding environmental issues, and going well beyond what is necessary in terms of mitigation and restoration of additional habitat. The State of New Jersey will be gaining considerable high quality habitat by these actions, in exchange for degraded, low quality *Phramities* marsh that is on the current site (and that will be the site of the new nuclear facility).

The plans proposed by PSE&G can be viewed in light of their past mitigation and restoration activities. They have one of the largest and most successful mitigation projects in the country, where they controlled Phragmites to produce high quality salt marsh with attendant mudflats and intertidal habitat that is used by thousands of shorebirds and other species. Thus their Estuary Enhancement Program is one of the

most successful in the country, has received a variety of state and national awards – and unlike many other such programs, it is sustainable.

Thus, it is my professional opinion that they are capable of, and will, deliver on their environmental mitigation and restoration plans. The company has integrity and environmental vision to ensure that there is little environmental impact, and that their restoration and mitigation plans will result in far more, high-quality habitat than is presently on site.