HANSON , MURPHY
& ASSOCIATES

January 22, 2009

Ms. Sharon Demeo
US EPA
Suite 1100
Boston, MA 02114

Subject: Mirant Canal Generating Plant
Clean Water Act Operating Regulations

Dear Ms. Demeo:

It is with a great deal of interest that I note from the recent Cape Cod Times article that EPA is about to issue a Draft ruling with regard to the operational requirements for the subject plant cooling water system. By way of introduction, I am formerly the Assistant Chief Mechanical engineer for COM/Energy, the original owner/operator of the Canal generating facility, as well as other generating plants in Massachusetts. In that role I had an opportunity to become very familiar with the operation of the Canal facility. As you know, in response to "Deregulation" , the generating facilities of all electric utility companies in Massachusetts were sold to private industry and that action eventually resulted in the Canal plant being purchased by the current owner, Mirant. As an independent consultant engineer I have continued to maintain contact with the Mirant company, and in particular, with regard to the specific issues related to the recently adopted restrictions on surface water intakes. I am also the originator of the Taunton River Desalination Facility located on the lower tidal region of the Taunton River in Dighton, Mass., which you may be familiar with. I have been promoting that facility for quite some time (approx. 16 years) and I am pleased to say that this state-of-the-art 10 MGD reverse osmosis based drinking water treatment facility has recently been completed and is in operation. As a result of my involvement in the design, construction, and operation of that facility I have become very familiar with the issues related to fish egg and larvae entrainment and impingement as applies to surface water intake systems in fish environments. As a result of this experience, and born somewhat out of necessity for the permitting of the Taunton River water treatment facility, we have developed a new system of filtration for surface water intake systems that completely eliminates entrainment of eggs and/or larvae and reduces mortality of these early life stages to extremely low percentages of the population.

The system to which I am referring to is known as the Filtrex System and is designed to filter down to 40 micron, which far surpasses any other available technology for intake filtration. The system has been pilot tested at the TRDP site as well as in the lab by Alden Lab and Normandeau Associates. Because these tests were successful, the agencies, EPA included, have allowed modification of the current TRDP permits to install and operate the TRDP facility with the Filtrex System. We are currently in the process of fabricating the system components and it will be

115 Main Street, North Easton, MA (508) 238-3088 (508) 238-0522(F)

operational for the beginning of the egg and larvae season on March 15 this year. There has been extensive evaluation of the system by all state and federal agencies and they have concluded that the system will operate in a manner that will be effective in protecting the various egg and larvae species that are known to be in or by the TRDP intake structure , which has a 24 hour total pumping capacity of approximately 30 million gallons.

Although this water quantity is significantly smaller than that of the Canal facility, we have developed conceptual designs that would also be capable of passing the needed flows of plants such as Canal. Over the past several years as we have been developing and permitting the TRDP Filtrex system and have had several meetings with the Mirant staff to discuss the possibility of piloting a Filtrex based system at the plant. Under the current circumstances they have understandably been reluctant to introduce any further complexity into the on-going permitting discussions related to the Clean Water Act filtration requirements vis-à-vis existing permits.

In any event we continue to be very interested in facilities such as Canal with regard to the Filtrex system. As an engineer I am convinced that the Filtrex system can be applied to facilities such as Canal in a much more cost effective and environmentally friendly manner than the traditional Cooling Tower approach. The initial cost would be a fraction of the projected cooling tower project and the operational efficiencies gained from the use of "once through" cooling as compared to the closed cycle approach, would provide dramatic operating cost savings for every hour that the plant operates. Although the plant is owned and operated as a private company, as we know, all costs are eventually paid for by the consumer. I believe that it would be a great disservice the people of Cap Cod to force the closing of the Canal Station due to unrealistic economies that will result if the plant is forced to make major investments to maintain its' operating permits. The plant has been a major factor for providing reliable electric service to the Cape. Unknown to many people, because of the "super-critical" technology used for the plant's generating cycle, the plant is actually one of the most efficient electric generating plants of its type in the country, and in many years has demonstrated that it is actually number 1 in efficiency of operation.

I am contacting you in the hope that whatever the upcoming ruling might be, that it leave some latitude for Mirant to more fully and freely consider the application of the Filtrex technology to its cooling water intake as a viable alternative to the cooling tower approach. Our efforts over the past several years to demonstrate the effectiveness of the system in addressing the requirements of the Clean Water Act have lead the agencies to conclude that the system will work. We are now on the verge of providing a full scale operating facility with extensive and on-going monitoring programs. We are confident that the system will operate as tested and can then be installed on larger scale facilities such as Canal with the added confidence that plant operations can continue in a safe and acceptable manner.

I would be pleased to provide you with further information if you desire and answer any questions you might have. You may also want to discuss the above approach to cooling water intake filtration with Mass DEP, DEM, Division of Marine Fisheries, Coastal Zone Management or within EPA to determine if there is merit worthy of further consideration as you decide on the future of the Canal facility. Thank you for your consideration in this matter.

Yours very truly,

Jeffrey H. Hanson, P. E.

115 Main Street, North Easton, MA (508) 238-3088 (508) 238-0522(F)