



Jeb Bush
Governor

Department of Environmental Protection

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2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

September 19, 2005

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. James O. Vick
Director of Environmental Affairs
Gulf Power Company
One Energy Place
Pensacola, Florida 32520

Re: Gulf Power Company
Scholz Electric Generating Plant
NPDES Permit #FL0002283-003-IW1S
Comments on 316(b) Proposal for Information Collection (PIC)

Dear Mr. Vick:

The Department has reviewed the GPC Scholz Electric Generating Plant PIC pursuant to 40 CFR Part 125.98(a) and has the comments provided in the Attachment. If GPC provides a written response to these comments, please provide copies to the Industrial Wastewater Section in Tallahassee, Bill Armstrong, P.E., at the Department's Northwest District office in Pensacola, and Karrie-Jo Shell, P.E., at USEPA Region 4 in Atlanta, Georgia.

If you have any questions concerning our comments, please contact either Tamara M Blyden or me at (850) 245-8589.

Sincerely,

Allen P. Hubbard, P.E.
Industrial Wastewater Section

AH/tmb/mh

cc: Karrie-Jo Shell, P.E., USEPA Region 4, Atlanta, GA
Bill Armstrong, P.E., NWD- Pensacola

Attachment

1. One aspect of this PIC (and others reviewed to date) is the question of how much sampling is enough. One means for providing statistical support to this determination is "power analysis." This approach takes into consideration how much is known about the variability of the parameter being assessed and offers a defensible strategy for establishing an appropriate sample size. Too few samples means one is unable to detect an effect, even if it is profound, too many and one is wasting resources. The PIC proposes sample numbers and sampling frequency without providing supporting material that those numbers and frequencies have the ability to detect significant differences. Public domain software for power analysis is available, but the method requires an understanding of statistical sampling design. In any event, proposed sample numbers and frequencies need to be justified for reasonable assurance that they have the ability to meet the needs of the project
2. The PIC discusses the use of various existing structures, procedures, operational controls, etc. for credit in reducing baseline impingement mortality and/or entrainment. Please note that the definition of Calculation Baseline in 40 CFR Part 125.93 states that such credit can only be obtained if the structures or activities were "implemented in whole or in part for the purposes of reducing impingement mortality or entrainment." Therefore, in order to claim such credit, a Permittee must demonstrate that the regulatory requirement is met.
3. Regarding sampling locations, Section 5.2.3.2 the PIC calls for bi-weekly impingement sampling events at the intake structure. The plant description (Section 1.1) states that there are two generators and four intake pumps, each with its own set of traveling screens. It is not clear whether sampling will include only one traveling screen, or all four sets together, or all four sets independently.
4. Sample Frequency: Samples will be collected from the traveling screen wash discharge for a 24 hour period with impinged organisms removed every day. Eight additional sample events (twice per season) will be collected to evaluate diel variability. It should also be feasible to empty the baskets twice a day, in the morning and evening. This would have the added benefit of eliminating the need for the eight additional diel sample events. The sampling program could be further improved by adding one collection per month, which would provide three replicates per month. This sampling design would be more "powerful" in the statistical sense, providing: – 3 days x 12 months = 36 sample events vs. 2 days per month x 12 months = 24 + 8 diel sample events = 32 total sample events.
5. Many of the references provided in the PIC are of a very general nature and don't cover intake structures or power plant operations. The following four items should be discussed referenced and listed in Appendix A:
 - a. Section 1.2, paragraph 2 and Section 3.1 paragraph 1 – the reference to a 1970 316(b) study;
 - b. Section 2.1 the effects of the configuration of the intake and intake canal on IM, (this would be a good place to have some of the plant's data),

Attachment

- c. Section 5.2.3.1 reference to existing data in Section 2.2 - Section 2.2 makes no reference to existing data;
 - d. Section 5.2.5.2 - the formula for adjusted calculation baseline. How much evidence is there for this relationship between shocked fish and IM?
6. In addition to converting CPUE data to IM rate data in order to document the value of the configuration of the intake canal, a literature review should be undertaken to determine the possible effects of intake configuration on fish impingement rates. Additionally, shocking for one hour, may shock the entire canal, which may bias the sample if the location within the canal is not taken into account, i.e. referencing at least "near the intake" or "the area of influence" or "near the confluence with the river" or "outside the area of influence". A better approach might be to shock each area for a shorter time period, (for example 10-15 minutes) and repeat the activity three to five times per sampling. This would give a better estimate of the fish populations in each area.
 7. A summary of the results of Gulf Power's existing investigations would be useful. The authors make several statements throughout the PIC for which supporting documentation is not provided. For example, the discussion in Section 2.1 describing the poorer habitat of the canal vs. the river, without supporting documentation. There may be available studies with such data, but none are presented.
 8. If a restoration project is proposed (Compliance Alternative 2), how will its effectiveness be measured (e.g. an increase in numbers, biomass, or CPUE)? The measure of success of a restoration project would be an increase in the existing stocks great enough to replace those lost to IM, as evaluated by an appropriately designed monitoring program.
 9. The PIC discusses several IM&E technologies but does not discuss their merits or indicate which technologies may be preferred at this time.