



Southwest Florida Water Management District

2379 Broad Street (U.S. 41 South) Brooksville, Florida 34609-6899
Phone (904) 796-7211 or 1-800-423-1476 SUNCOM 628-4150

May 1, 1992

Charles A. Black
Chairman, Crystal River
Roy G. Harrell, Jr.
Vice Chairman, St. Petersburg
Sally Thompson
Secretary, Tampa
Ramon F. Campo
Brandon
James L. Cox
Lakeland
Joe L. Davis, Jr.
Wauchoula
John T. Hamner
Bradenton
Curtis L. Law
Land O' Lakes
James E. Martin
St. Petersburg
Margaret W. Sistrunk
Odessa

Peter G. Hubbell
Executive Director
Mark D. Farrell
Assistant Executive Director

Mr. James R. Frauen
Environmental Engineer
Post Office Box 272000
Tampa, FL 33688-2000

Subject: Additional Information Request
Hardee Power Station
230 Kv Transmission Line
[PI 37 (Arcadia) to SWFWMD Boundary]
Site Certification No.: PA 89-25
DOAH Case No.: 89-3560

Dear Mr. Frauen:

In accordance with the Conditions of Certification, Section XXXV, paragraph C. 1.a., this letter shall serve to advise that additional information is necessary to determine that the proposed activities conform to the rule criteria in Chapter 40D-4, Florida Administrative Code (F.A.C.).

Your submittal is lacking the information necessary for us to complete our review. Please provide the following information:

1. Section 3.2.3.1.2, Part B, Basis of Review, Chapter 40D-4, F.A.C. requires that for fill impacts to wetlands that are not considered significantly disturbed, compensation will include, as a minimum, type-for-type functional replacement of lost wetland habitat at a 1-to-1 ratio with additional compensation to achieve the total required compensation ratios (1.5:1 for non-forested and 2.5:1 for forested).
 - a. Please identify those wetland impact areas that will require type-for-type compensation. Each wetland area will be field reviewed by District staff in order to assess your determination. In the interim, you may proceed on the assumption that type-for-type wetland creation will be required for these impacts.
 - b. For those wetland impacts that require type-for-type mitigation, you will need to provide quantitative environmental baseline assessments. Attached is a copy of our compensation success criteria which clearly indicates the parameters necessary to measure success. The quantitative assessments should provide these

Excellence
Through
Quality
Service

MAY 4 1992

WET. RES. MGL

MAY 06 1992

Mr. James R. Frauen
Page 2
May 1, 1992

WET RES 1061

MAY 06 1992

parameters for each zone and stratum. Please contact the project Environmental Scientist, Howard Knight, to discuss the required detail.

2. Please address the following impact and compensation quantification issues and contact the project Environmental Scientist, Howard Knight, to arrange a site visit to review your determinations:
 - a. Please identify those wetlands with proposed shrub clearing impacts that are not nuisance species-dominated and revise Table 1 to indicate that these clearing impacts will require compensation.
 - b. The following wetlands are described as shrub wetlands, but appear to have significant forested components: 2D1, 2D2, and 2D14. Please address, correct the appropriate figures and Table 1, and provide for additional compensation.
 - c. The following wetlands are described as marsh systems, but appear to have significant forested and/or shrub components: 2D4, 2D19, and 2D20. Please address, correct the appropriate figures and Table 1, and provide for additional compensation.
 - d. Please correct Table 1 to show the fill impacts in wetland 2C30 and provide for additional compensation. In addition, Figure 29-30 indicates marsh clearing impacts. Please clarify and correct if necessary.
 - e. For each of the DER ditches that are identified, please provide supporting documentation that these ditches are not located in hydric soils. Ditches in hydric soils are considered wetlands and would therefore require compensation.
 - f. For each of the corduroy crossings, please provide a brief habitat description. If significant habitat is identified, please include these as fill impacts and provide additional compensation.
 - g. For those hydric hardwoods/wet prairie wetlands identified on Table 1, please revise your figures to indicate the extent of clearing impacts. As discussed previously, compensation requirements will be based on whether the canopy is a significant component of the habitat. For each impact area, please provide estimates of canopy coverage with a narrative of variability and contact the project Environmental Scientist, Howard Knight, to discuss compensation issues.
 - h. The following station numbers have forested wetlands that are either not shown or have no clearing impacts identified: 1955+00 and 2890+00. Please clarify, correct the appropriate figures and Table 1, and provide additional compensation.

Mr. James R. Frauen
Page 3
May 1, 1992

RECEIVED
WET. RES. MG.

MAY 06 1992

3. Please provide the approximate acreage for each wetland or wetland portion located within the designated right-of-way.
4. You have proposed forested creation with only two tree species, Taxodium ascendens and Fraxinus caroliniana, to compensate for clearing impacts to diverse bottomland hardwood wetlands. As previously discussed on numerous occasions, the compensation ratio of 1:1 for clearing of forested wetlands is based on the assumption of type-for-type replacement. Given the difference in diversity between the impact wetlands and the proposed wetland creations, you will need to provide a minimum of 2:1 of the proposed creation design. Please address.
5. Please address the following questions and comments regarding the wetland creation design:
 - a. The projected SHWL for slough 3 in the mitigation area vicinity is identical to the proposed control elevation of the rehydration berm but the values for these parameters for slough 2 do not similarly correlate. Please clarify this discrepancy.
 - b. Please identify the party responsible for the soil boring information. In addition, the depth of the hardpan was discussed in the meeting of February 28, 1992 but the information was omitted from this submittal. Please provide this information.
 - c. Please indicate proposed topographic contours and provide sufficient existing topographic detail to clarify the relationship of the mitigation area to the sloughs and existing grade. Please distinguish between proposed topographic contours and limits of the mitigation areas.
 - d. We have concerns with the mitigation area forming a direct hydraulic connection between the two slough systems that have different SHWL elevations. Please revise the proposed design to allow two separate creation areas that are hydrologically dependent on either slough.
 - e. As discussed in our February 28, 1992 meeting we have concerns regarding the potential for tree development given the sub-surface hardpan which has been substantiated by your soils boring data. We discussed the potential solution of excavating a portion of the hardpan and back-filling with appropriate material to allow for viable root expansion. Your submittal has not addressed this issue. Without adequate resolution, we do not have reasonable assurance of the success of the forested portions. Please provide for design alternatives, support for your proposal, or consider alternative locations for your forested wetland creations. In addition, you will need to provide greater detail regarding the thickness of the hardpan, as requested in item 5.b., in order to verify that an excavation will not breach this soil matrix.

Mr. James R. Frauen
Page 4
May 1, 1992

RECEIVED
WET. RES. MG.

MAY 06 1992

- f. The vast majority of the forested mitigation is set at varying elevations near the various SHWL elevations identified. Depending on the resolution of items 5.a, 5.c, and 5.d, you may need to change these grade elevations. Further, you have proposed tree species that are tolerant of a greater range of inundation than the limited range provided. We recommend that you provide for greater relief in grade elevations for the forested areas, given the uncertainty of final hydrologic conditions, to increase the likelihood of success.
 - g. Please replace the following upland species proposed in wetland areas with hydrophytic components: Ruellia caroliniensis and Serenoa repens.
 - h. Similar to the marsh mitigation design, please indicate the proposed zonation of plantings for the forested mitigation areas.
 - i. Please be aware that the monitoring and maintenance plan for the wetland creation areas will be addressed as a permit condition, similar to Segment 1, so as to allow for a uniform plan when the entire mitigation area design is completed.
6. Please provide the specifications, including supporting assumptions and calculations, showing the type and size of water control structures (ditch, culvert, equalizer, etc.) to be used, with proposed flowline elevations marked, drainage areas identified and design capacity verified.
7. Please provide copies of the Flood Insurance Rate Maps (FIRM) for the areas affected by this project. Provide a plan (details and calculations) of any proposed fill in the flood plain limits along with a compensation plan for flood plain encroachment.

To help us expedite our review, please submit your response to the Bartow Permitting Department. In accordance with the Conditions of Certification, Section XXV, paragraph c.(1)(a), the permittees shall submit such information to the Southwest Florida Water Management District (SWFWMD) staff.

Note that in accordance with the Conditions of Certification, Section XXXV, paragraph C. 1.b., construction activities which have surface water management impacts shall not begin until the water management district has had an opportunity to assure that the activities are in compliance with the applicable rule criteria.

Mr. James R. Frauen
Page 5
May 1, 1992

RECEIVED
NET RES MG
MAY 06 1992

If I may be of further assistance please contact me in our Bartow office at (813) 534-7080.

Sincerely,

William A. Hartmann

William A. Hartmann, P.E.
Surface Water Permitting Supervisor
Bartow Permitting Department
Resource Regulation

Enclosures
WAH:JRB:cs309

cc: Mr. Hamilton S. Oven, Jr., P.E., Administrator, Siting Coordination Section,
Florida Department of Environmental Regulation, 2600 Blair Stone Road, Room 309L,
Tallahassee, FL 32399-2400
R. Viertel
R. Gannon
J. Burke
H. Knight

APR 05 1992
MAY 06 1992

MITIGATION SUCCESS CRITERIA

Mitigation is expected to result in the creation of stable, viable wetlands functioning in perpetuity at a level at least equivalent to the permitted wetlands impact area. Wetlands constructed for mitigation purposes will be deemed successful when the following criteria are met continuously for a period of at least 1 year without intervention in the form of irrigation or the addition or removal of vegetation:

1. The mitigation area is classified the same as the permitted wetlands impact area according to the USFWS classification scheme referenced in Section X.X., Basis of Review.
2. Topography, water depth, soils and water level fluctuation in the mitigation area are similar to conditions in the permitted wetlands impact area, producing habitat zonation.
3. The dominant and sub-dominant species of desirable wetlands plants comprising each vegetation zone and stratum of the mitigation area are the same as in the permitted wetlands impact area.
4. Coverage by desirable wetlands vegetation equals or exceeds conditions documented in the permitted wetlands impact area. Only trees greater than 10 feet in height can be used to estimate canopy coverage.
5. Density of trees surviving at least 3 years in the mitigation area equals or exceeds conditions documented in the permitted wetlands impact area (if applicable).
6. Coverage by nuisance or exotic species does not exceed 10 percent or conditions documented in the permitted wetlands impact area, whichever is less.
7. Coverage by uplands vegetation does not exceed 10 percent during the wet season.

Deletion of specific success requirements or establishment of additional success requirements may occur on a case-by-case basis when warranted by exceptional circumstances.

WET RES MGT.

MAY 06 1992

ATTACHMENT A
WETLAND COMPENSATION SUCCESS CRITERIA
COMPENSATION AREA ENTER COMPENSATION AREA-

Compensation shall be deemed successful when the following criteria have been met continuously for a period of at least one (1) year without intervention in the form of irrigation, removal of undesirable vegetation, or replanting of desirable vegetation:

1. The compensation area can be classified as ENTER CLASSIFICATION OF COMPENSATION- according to the United States Fish and Wildlife Service's Classification of Wetlands and Deepwater Habitats of the United States.
2. Topography, water depth, soils and water level fluctuations in the compensation area are similar to conditions in the permitted wetlands impact area, producing proportional habitat zonation.
3. The dominant and sub-dominant species of desirable wetland plants and the overall coverage comprising each vegetation zone and stratum of each compensations area shall be as follows:

ZONE	STRATUM	% COVERAGE DESIRABLE SPECIES	DOMINANT SPECIES	SUBDOMINANT SPECIES
^C	^C	^C	^C	^C

Only trees greater than ten feet in height can be used to estimate canopy coverage.

4. Density of trees surviving at least three (3) years in the compensation area shall be as follows:

ZONE	DENSITY (tree/acre)
^C	^C
^C	^C
^C	^C
^C	^C

5. Coverage by nuisance or exotic species shall not exceed ENTER PERCENTAGE-% of the compensation area.
6. Coverage by uplands vegetation shall not exceed 10% of the compensation area during the wet season (June-September).