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February 15, 2001 0137518

Florida Power Corporation
Environmental Services Department
One Power Plaza; MAC BB1A
263 13th Avenue South
St. Petersburg, FL 33701-5511

Attention: J. Michael Kennedy, Q.E.P

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RE: CRYSTAL RIVER MATERIAL HANDLING UPGRADES

Dear Mike:

This correspondence is a Professional Engineer certification accompanying a notification that Florida Power Corporation intends to replace and upgrade components of the existing coal conveyor system at the Crystal River Plant. This certification deals with the potential increase of emissions resulting from the upgrades.

The changes contemplated for the plant are as follows:

- Barge to Transfer Point #1 – Increasing the existing capacity from 1,500 tons/hour to 2,500 tons/hour.
- Transfer Point # 1 to Transfer Point #2 – Eliminating this conveyor. Its existing capacity is 1,500 tons/hour.
- Transfer Point #1 to Transfer Point 3# - Adding a new conveyor direction with a capacity of 2,500 tons/hour.
- Transfer Point #3 to/from Stacker/Reclaim – Increasing the existing capacity from 1,500 tons/hour to 2,500 tons/hour.
- Transfer Point #3 to Transfer Point 24 - Increasing the existing capacity from 1,500 tons/hour to 2,500 tons/hour.
- Transfer Point #24 to Transfer Point #3 - Adding this new conveyor direction with a capacity of 2,500 tons/hour.
- Transfer Point #24 to Transfer Point #23 – Adding this new conveyor direction with a capacity of 2,500 tons/hour.

The transfer points will not change as a result of the upgrade and the existing transfer points are enclosed.

The history of the coal handling at the Crystal River Plant, including the Title V Permit Application and Title V Permit. The Title V Application contained a detailed estimate of emissions for the coal handling system that included portions of two previous reports. These reports were the March 1989 *Particulate Matter Air Quality Assessment for the Crystal River Plant* and the January 1990 *Air Quality Impact Assessment for Helper Cooling Towers for Units 1, 2, and 3 at the Crystal River Plant.* I was the Professional Engineer of Record on these studies as well as the Title V Permit

Application. The inventory included in these reports (see attached) determined maximum potential annual and 24-hour PM/PM_{10} emissions estimates for material handling based on the maximum potential coal used by Units 1,2, 4, and 5. An increase from 1,500 tons/hour to 2,500 tons/hour would not change the annual or 24-hour emission estimates, since these rates were not used in determining potential to emit. The potential to emit was based on the maximum potential coal utilization for the coal-fired units (i.e., Units 1, 2, 3, and 4). The maximum annual capacity identified in the Title V Application was 5.2 million tons of coal for all units, which consisted of 2 million tons/year for Units 1 and 2 and 3.2 million tons/year for Units 4 and 5. The daily throughput identified in the Title V application was 15,000 tons/day. In addition, the emission factors used to estimate fugitive PM emissions were based on batch and continuous drop operations at transfer points. PM emissions from the transfer points are still limited by the annual and daily coal throughput and will not change as a result the conveyor upgrade.

As a comparison, the PM emissions are based on 5.2 million tons of coal per year, while the maximum potential capability at 1,500 tons/hour is 13.14 million tons per year and at 2,500 tons/year is 21.9 million tons of coal per year. Indeed, the conveyor system rate only allows the transfer of coal from the barge to the storage area at a faster rate but does not increase the annual or daily rates since these are limited by the utilization of the coal-fired units.

The inventory was based on a worst case using the barge unloading system. Rail was not evaluated since the emissions would be lower based on the amount of transfer points.

Tables 1 and 2 present a listing of the conveyor changes, the basis for the emissions from the facility and the emissions. As shown, the PM emissions have been accounted for in the emissions of the transfer points. While a physical change is being made in the conveyor system, there would not be an annual or daily increase in PM emissions at the site.

Golder Associates appreciates this opportunity to assist Florida Power Corporation. Please call if you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Kennard F. Kosky, P.E.
Principal
Professional Engineer No. 14996

KFK/jkw/jkw

Enclosures

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Table 1. Summary of Conveyor Upgrades and Basis of PM Emissions in Title V Permit for Material Handling at Crystal River Plant

Conveyor From	To	Emissions Source No.	Rating (tons/hour) Previous	Rating (tons/hour) New	Rating (tons/day) Previous	Rating (tons/day) New	Rating (tons/yr) Previous	Rating (tons/yr) New
Barge	Transfer Point #1	B-1; B-2; B-3	1,500	2,500	15,000	15,000	5,200,000	5,200,000
Transfer Point #1	Transfer Point #2	TP1-1	1,500	NA	15,000	NA	5,200,000	NA
Transfer Point #1	Transfer Point #3	TP2-1; TP-2-2	NA	2,500	NA	15,000	NA	5,200,000
Transfer Point #3	Stacker/Reclaim-Out (3A)[a]	SR-1 to SR-4	1,500	2,500	15,000	15,000	2,000,000	2,000,000
Transfer Point #3	Stacker/Reclaim-In (3B)[a]	SR-1 to SR-4	1,500	2,500	15,000	15,000	2,000,000	2,000,000
Transfer Point #3	Transfer Point #24	TP2-1; TP-2-2	1,500	2,500	15,000	15,000	5,200,000	5,200,000
Transfer Point #24	Transfer point #3	TP2-1; TP-2-2	NA	2,500	NA	15,000	NA	5,200,000
Transfer Point #24	Transfer Point #23	See Note A	NA	2,500	NA	NA	NA	NA

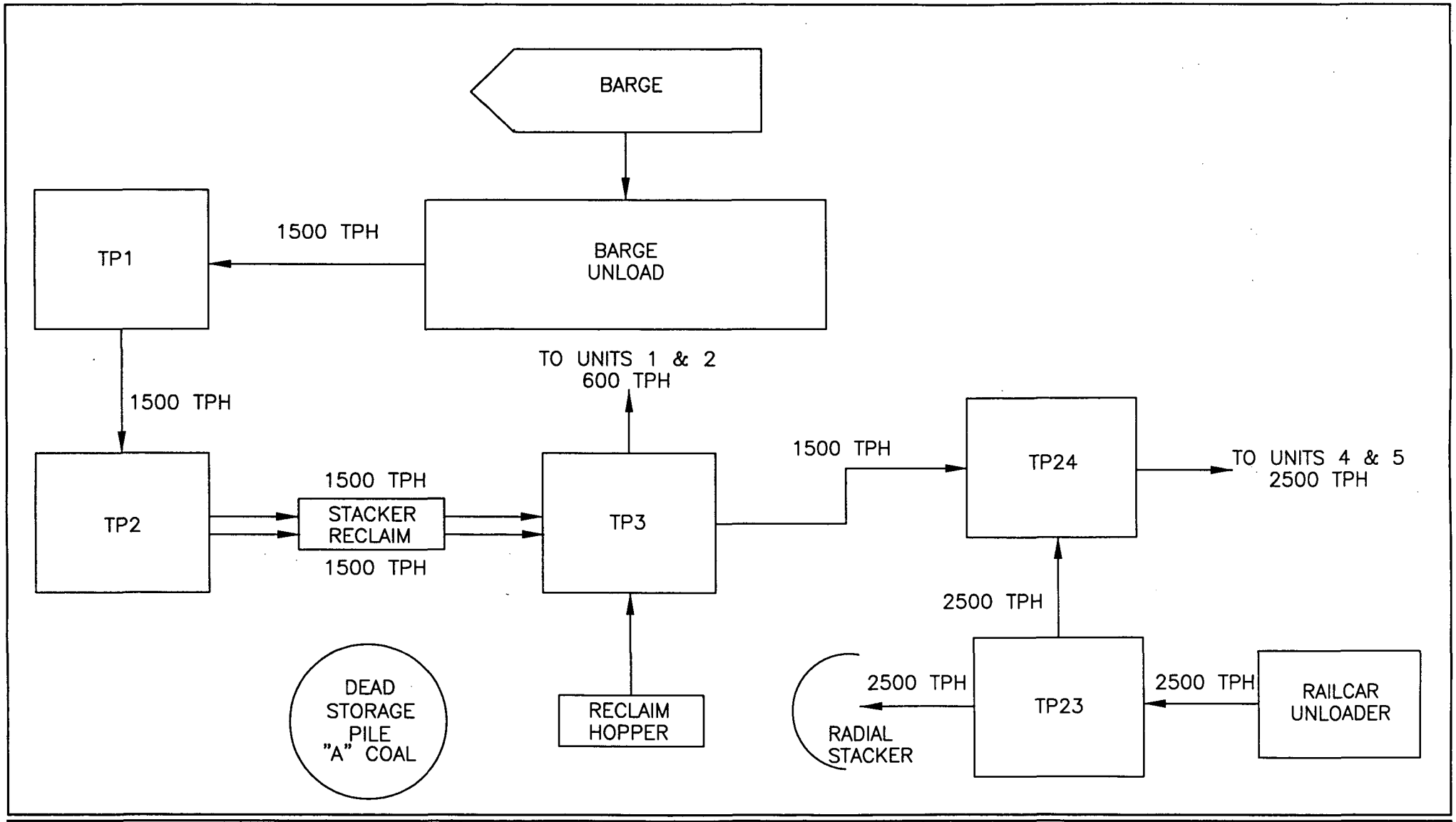
[a] The annual usage for this stacker/reclaim is for Unit 1 and 2 with an annual usage of 2 million tons/year of coal.

Note A: This transfer point is associated with the rail delivery which was not the worst case fuel delivery operation.

Table 2. Summary of Conveyor Upgrades and PM Emissions in Title V Permit for Material Handling for Crystal River Plant

Conveyor From	To	Emissions Source No.	Emissions (tons/yr) Previous	Emissions (tons/yr) New	Emissions (lb/day) Previous	Emissions (lb/day) New
Barge	Transfer Point #1	B-1; B-2; B-3	0.248	0.248	5.06	5.06
Transfer Point #1	Transfer Point #2	TP1-1	0.030	0.030	0.61	0.61
Transfer Point #1	Transfer Point #3	TP2-1; TP-2-2	0.233	0.233	3.66	3.66
Transfer Point #3	Stacker/Reclaim-Out (3A)	SR-1 to SR-4	0.229	0.229	4.67	4.67
Transfer Point #3	Stacker/Reclaim-In (3B)	SR-1 to SR-4	0.229	0.229	4.67	4.67
Transfer Point #3	Transfer Point #24	TP2-1; TP-2-2	0.233	0.233	3.66	3.66
Transfer Point #24	Transfer point #3	TP2-1; TP-2-2	0.233	0.233	3.66	3.66
Transfer Point #24	Transfer Point #23	See Note A	NA	NA	NA	NA

Note A: This transfer point is associated with the rail delivery which was not the worst case fuel delivery operation.



LEGEND

TP = TRANSFER POINT
TPH = TONS PER HOUR

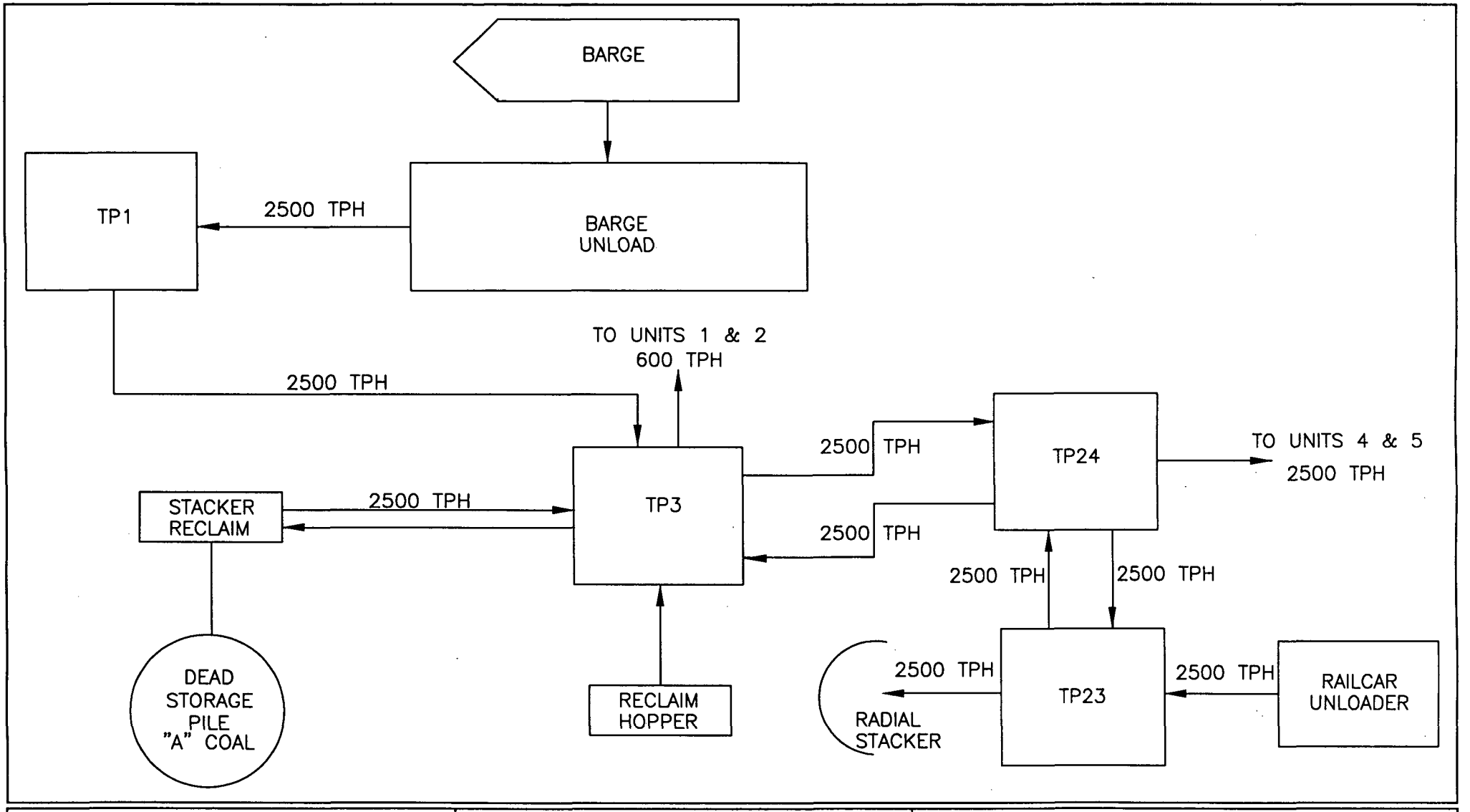
FPC – CRYSTAL RIVER

EXISTING CONVEYOR SYSTEM
(BARGE AND RAIL UNLOADING ONLY)

PROCESS FLOW DIAGRAM

FILENAME: 0137518\4.1\FPC-PFD-OLD.DWG

LATEST REVISION: 02/15/00 by PAC



LEGEND

TP = TRANSFER POINT
TPH = TONS PER HOUR

FPC – CRYSTAL RIVER

ENHANCED CONVEYOR SYSTEM
(BARGE AND RAIL UNLOADING ONLY)

PROCESS FLOW DIAGRAM

FILENAME: 0137518\4.1\FPC-PSD-NEW.DWG

LATEST REVISION: 02/15/00 by PAC