



June 28, 2004

**RECEIVED**

JUL 06 2004

BUREAU OF AIR REGULATION

Ms. Trina Vielhauer  
Chief, Bureau of Air Regulation  
Department of Environmental Protection  
Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida  
32399-2400

RE: Manatee Power Plant FDEP Air Permit No. 08100100-008-AV  
PSD Applicability Report; Second of Five Annual Reports

Dear Ms. Vielhauer:

Pursuant to Specific Condition A.40 of the above referenced permit, FPL submits the following PSD Applicability Report. The PSD Applicability Report is required as a result of adding natural gas as a permitted fuel to Manatee Units 1&2. The report is required to be submitted for five years that are representative of normal post-change operation following the addition of natural gas. Natural gas was added to Unit 2 during 2002 and to Unit 1 in 2003.

Table 1 below summarizes the 2003 Actual Emissions compared to the "Past Actual Emissions" (Years 2000 & 2001 average) for the Manatee Plant.

Pollutant	Past Actual Emissions (Years 2000 & 2001 Average) Tons per Year	2003 Actual Emissions	Calculation Methods
Carbon Monoxide (CO)	18,987	16,936	AOR (oil), Initial Performance Test (gas)
Nitrogen Oxides (NOx)	8762	7232	EPA Scorecard
Particulate Matter (PM)	2384	2106	AOR (oil), Initial Performance Test (gas)
Sulfur Dioxide (SO <sub>2</sub> )	31,753	27,231	EPA Scorecard
Volatile Organic Compounds (VOC)	149	136	AOR (oil), Initial Performance Test (gas)

Table 1

All 2003 Actual Emissions decreased over the Past Actual Emissions. The decreases in emissions are only slightly related to the physical change of adding natural gas as a permitted fuel, but mostly, the result of Manatee Plant's decreased utilization during 2003.

In 2003 the generation and fuel usage at Manatee Plant Units 1&2 decreased approximately 8% over the 2000 & 2001 (Base Year) average (Ref. Figs. 1 & 2 below).

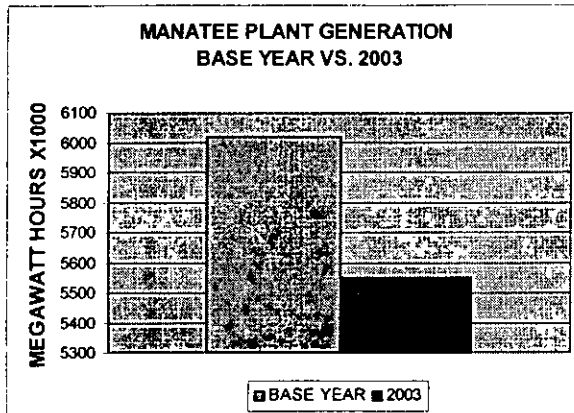


Fig. 1

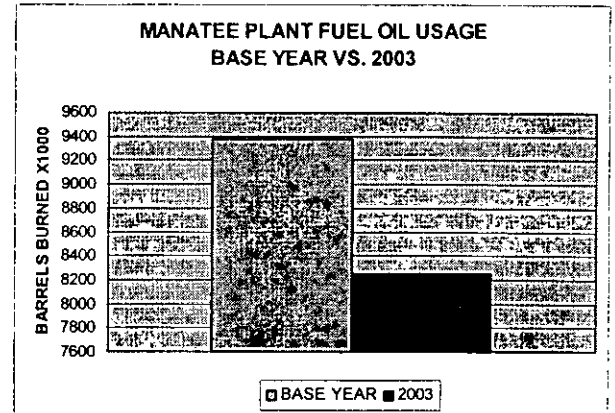


Fig. 2

In 2003 natural gas represented approximately 4% of the total fuel used at Manatee 1&2 (Ref. Fig. 3 below).

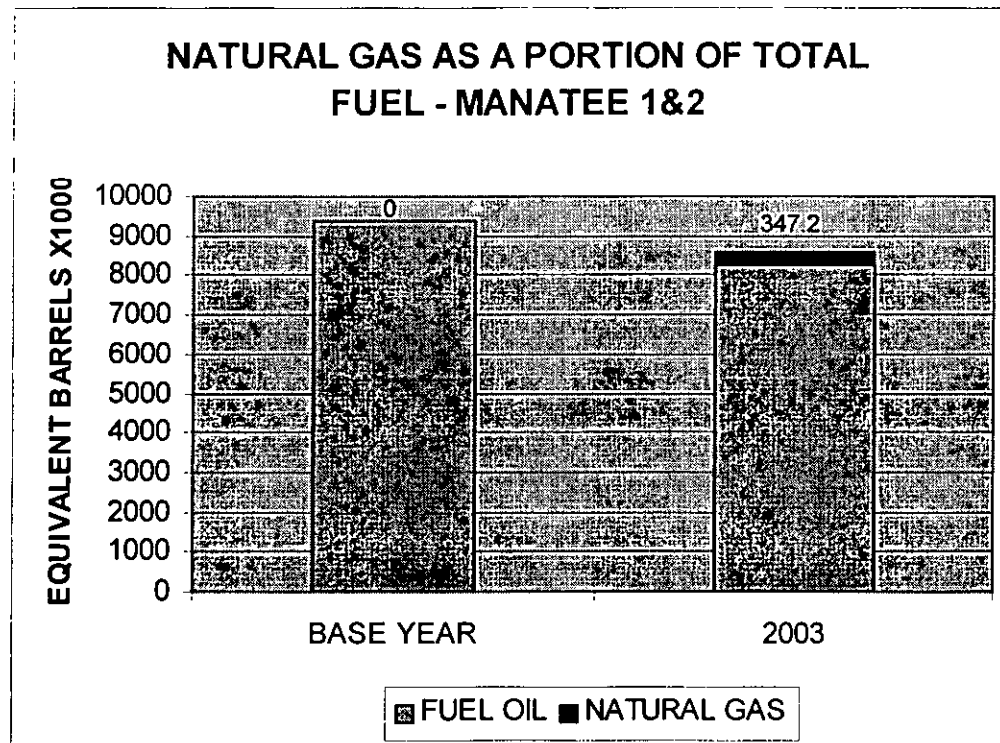


Fig. 3

In accordance with Specific Condition A.40.b and 40 CFR 52.21(b)(33)(ii), Table 2 below shows the 2003 annual emissions excluding the portion of emissions that are unrelated to the physical change of adding natural gas to Units 1&2.

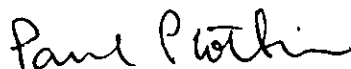
Pollutant	Past Actual Emissions (Years 2000 & 2001 Average) Tons per Year	2003 Actual Emissions Tons	2003 Actual Emissions Excluding Emissions Unrelated to The addition of Natural Gas
Carbon Monoxide (CO)	18,987	16,936	(532)
Nitrogen Oxides (NOx)	8762	7232	(829)
Particulate Matter (PM)	2384	2106	(87)
Sulfur Dioxide (SO <sub>2</sub> )	31,753	27,231	(1982)
Volatile Organic Compounds (VOC)	149	136	(1)

Table 2

From the table, the decreases in all pollutants are generally due to the decrease in utilization, however some modest decreases can be attributed to natural gas firing.

In summary, the addition of natural gas to Manatee Units 1&2 did not cause a significant increase in annual emissions and should not be subject to PSD review. Should you have any questions, or require additional information, please feel free to contact me at (941) 776-5211 or Kevin Washington at (561) 691-2877.

Sincerely,



Paul Plotkin  
Plant General Manager

cc: A. A. Linero, P.E. Administrator New Source Review Section, DEP  
James Cleary, Department of Environmental Protection Southwest Florida District  
Rob Brown, Manatee County Environmental Management Department

Fig 3

**FPL**

Florida Power &amp; Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

October 22, 1999

Scott

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OCT 25 1999

Mr. Clair Fancy, Chief  
Bureau of Air Regulation  
Department of Environmental Protection  
2600 Blair Stone Rd. Tallahassee, Florida 32399-2400

BUREAU OF AIR REGULATION

INFO

**Re: FPL - Manatee Plant**  
**Proposed Burner Change-out**  
**Notice of Intent**

Dear Mr. Fancy:

In response to the telephone conversations with Scott Sheplak on October 13, 1999 and Al Linero on October 14, 1999, this letter is provided as notice of Manatee Plant's intent to replace the existing burners. The replacement burners are planned for installation on Unit 2 in the spring of 2000 and on Unit 1 in the fall of 2000.

Background

The Manatee Plant's original burners were Forney Type "QPWRMA" with mechanical atomization and were "state of the art" in the late 1970's when they were installed. In late 1994 and early 1995 in an effort to increase the combustion efficiency of these burners, the plant changed from mechanical atomization to steam atomization. Due to the age of the burners, it has become somewhat difficult to acquire replacement parts. To improve our visible emission performance and increase the overall reliability of these burners, we would like to replace them with burners manufactured by ABB Combustion Services, Ltd (formerly International Combustion, Ltd). We have had very successful emission control and operating experience with this type of burner at our Martin Plant in Indiantown, Florida since 1985.

Benefits

The replacement burners will be better for the environment as addressed in the attached PE signed & sealed documents. We expect to achieve emission reductions in opacity, NOx, and CO. These emission reductions will be maximized during hours of high load operations typically associated with hot summer days. The replacement burners will be mechanically atomized. This will reduce the use of water by approximately 30-37 million gallons per year.

The replacement burners will be both more reliable and natural gas compatible to allow the option of fuel flexibility in the future. Proper permit modifications would be completed for any fuel type additions.

Page 2

Notice of Intent – Manatee Burner Change-out

Based upon the above facts, and as discussed in the telephone conversations of October 13 and 14, 1999, the only requirement for this matter is satisfied by this notice of intent. If you require any additional information, please do not hesitate to call me at 561-691-7057.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary J. Archer", with a long, sweeping horizontal line extending to the right.

Mary J. Archer, QEP  
Principal Environmental Specialist  
Florida Power & Light Company

cc: Florida Southwest District DEP – Jerry Kissel  
cc: Manatee County – Air Quality Management Division



Documentation of Emissions Reductions  
Notice of Intent – Manatee Burner Change-out

Replacement Burner Emission Impact

There will be no increases in emissions. The following emission reductions are expected:

- **Opacity**  
A reduction of 10-15 points in opacity at high loads during steady state conditions is anticipated. The permit limit for opacity is 40% at steady state conditions.
- **NOx**  
A reduction between 20 to 30% in the average daily NOx emission rate is anticipated. This is achieved by lowering the NOx emission levels during the hours of high load operation. For example, on a typical hot summer day the total accumulative tons of NOx per unit will be reduced from 23 to 16, indicating a 30 % reduction as the maximum anticipated reduction of NOx. The permit limit for NOx is 0.30 lb/mmbtu based on a 30-day rolling average.
- **CO**  
A reduction between 20 to 30% in the CO emission rate during the hours of high load operation is anticipated.

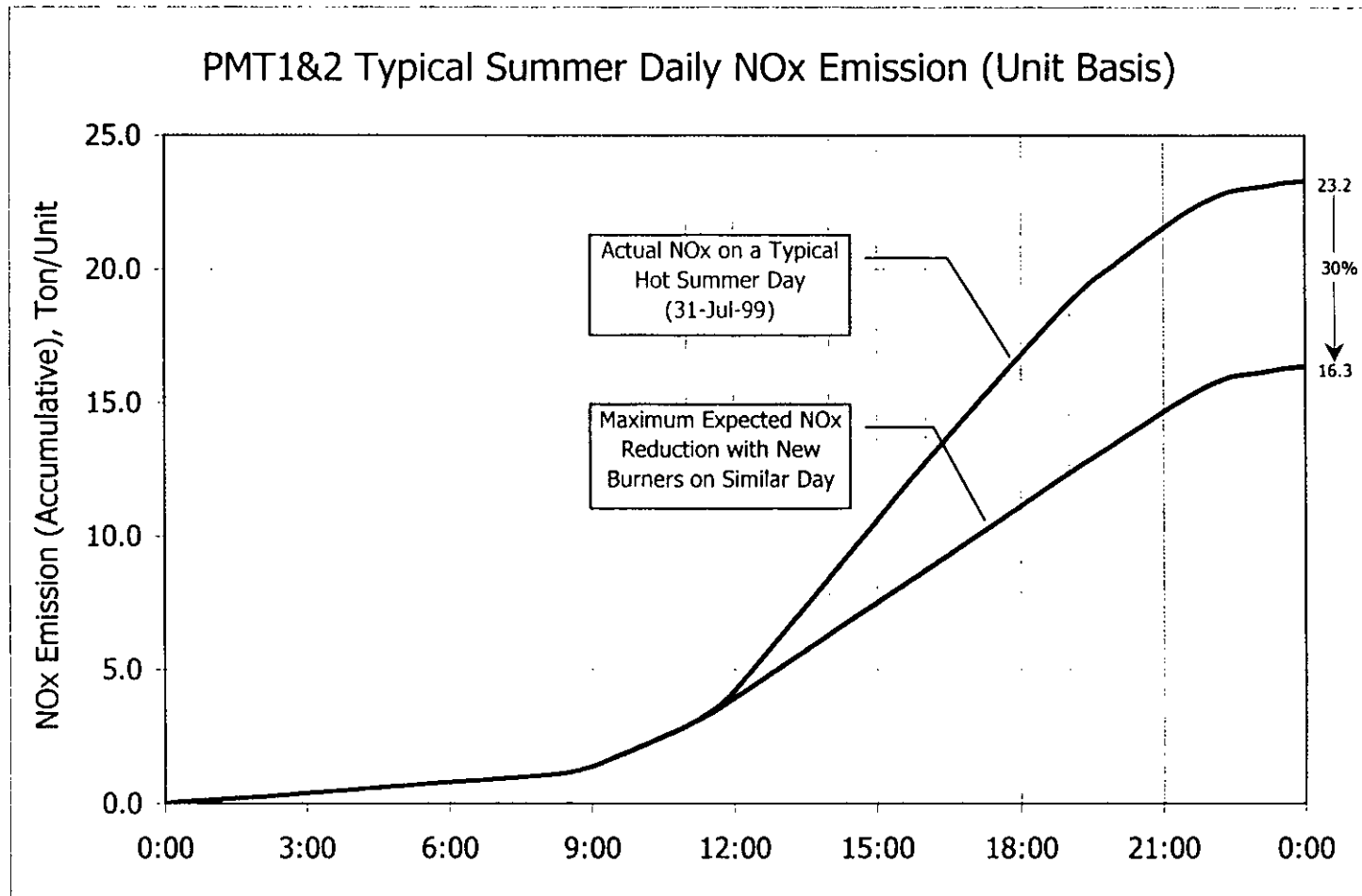
*I, the undersigned, hereby certify, that: (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions described in this notice will comply with all applicable standards for control of air pollutant emissions found in the current air operating permit including the Florida Statutes and rules of the Department of Environmental Protection; (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are based upon reasonable techniques available for calculating emissions. (3) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions described in this notice will result in a reduction of emissions as identified in this notice.*

*PE Signed and Sealed*

Kathryn S. Salvador  
Kathryn S. Salvador, Florida PE No. 54726

10/22/99  
Date

## PMT Emission Control Summary - Summer Daily NOx Emission (990731)





July 23, 1998

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Mr. Scott M. Sheplak, P.E.  
State of Florida  
Department of Environmental Protection  
Division of Air Resources Management  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: Permit No. 0810010-001-AV  
FPL Manatee Plant Final Title V Permit

Dear Mr. Sheplak:

As we discussed in our phone conversation of July 22, 1998, I failed to mention in my previous letter of June 23, 1998, that the attached statement in the Department letter, dated July 16, 1998, needs a minor revision due to changes in the sulfur compliance sampling which occurred after the original understanding concerning the report language. The plant agreed to limit the sulfur content per the as received oil concentration. The reporting then should provide results of the compliance sampling, the as received analysis, and not create an additional sampling & analysis.

We request the Department change the words "fuel fired" to "fuel received" as indicated in the following:

Fuel Analysis Report: The owner or operator shall, by the fifteenth day of each month, submit to the Department's Southwest District, Air Section, a report of fuel analyses that are representative of each fuel received in the preceding month. The report shall document the heating value, the density or specific gravity and the percent sulfur content by weight of each fuel received.

Thank you for your patience in providing consistency within the Title V permits. Please do not hesitate to contact me at (561) 691-7057 if I may be of further assistance.

Sincerely,

Mary Archer  
Sr. Environmental Specialist  
Florida Power & Light Company

7/30/98 cc: Scott Sheplak





# Department of Environmental Protection

Lawton Chiles  
Governor

Virginia B. Wetherell  
Secretary

## NOTICE OF ADMINISTRATIVE PERMIT CORRECTION

In the Matter of an Application for Administrative Permit Correction

Mr. J. M. Parent  
Plant General Manager  
Florida Power & Light Company  
11770 U.S. Highway One  
North Palm Beach, FL 33408

FINAL Permit No.: 0810010-001-AV  
Manatee Plant

The Department has determined that several minor corrections to information contained in Final Permit Number 0810010-001-AV are required. These corrections are related to typographical errors, minor omissions, or clarification of permit conditions. These corrections are minor in nature and do not alter, modify or revise any permit requirement. This Administrative Permit Correction was processed as project number 0810010-003-AV, pursuant to Rule 62-210.360, F.A.C. The corrections are:

Specific condition A.27 shall read:

**A.27. Operating Conditions During Testing - PM and VE.** When required, testing for particulate matter and visible emissions shall be conducted while firing No. 6 fuel oil at the maximum allowable rate of 8650 million Btu per hour, except as provided below. Particulate and visible emissions shall be conducted under both sootblowing and non-sootblowing conditions, and shall be conducted while injecting additives consistent with normal operating practices.

Testing may be conducted while firing No. 6 fuel oil at less than 90 percent of the maximum allowable rate; however, subsequent emissions unit operation is limited as described in specific condition A.26 of this permit.  
[Rules 62-4.070(3) and 62-213.440 F.A.C., AO 41-204804 Specific Condition 5, AO 41-219341 Specific Condition 5]

Specific condition A.35 shall read:

**A.35. Fuel Analysis Report.** The owner or operator shall, by the fifteenth day following each calendar month, submit to the Department's Southwest District, Air Section, a report of fuel analyses that are representative of each fuel fired in the preceding month. The report shall document the heating value, density or specific gravity, and the percent sulfur content by weight of each fuel fired.  
[Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

The brief description of emissions units in Table 1-1 of Appendix S shall read:

Emissions Unit	Brief Description
001	Fossil Fuel Steam Generator, Unit 1
002	Fossil Fuel Steam Generator, Unit 2

The row of Table 2-1 of Appendix S for the pollutant SO<sub>2</sub> shall read:

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date <sup>1</sup>	Minimum Compliance Test Duration	CMS <sup>2</sup>	See Permit Condition(s)
SO <sub>2</sub>	Oil	Fuel sampling & analysis	As received				A.9, A.15, A.23 & A.24

This permit correction corrects and is a part of Final Permit Number 0810010-001-AV. This permit correction is issued pursuant to Chapter 403, Florida Statutes.

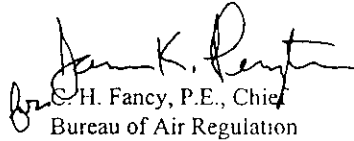
Any party to this order (permit correction) has the right to seek judicial review of it under section 120.68 of the Florida Statutes, by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by

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filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

  
J. H. Fancy, P.E., Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT CORRECTION was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 07-16-98 to the person(s) listed:

Mr. J. M. Parent \*

Mr. William M. Reichel, FPL \*

Hon. Joe McClash, Manatee County Board of County Commissioners \*

✓ Ms. Mary Archer, FPL

Mr. Bill Thomas, DEP SWD

Ms. Carla E. Pierce, USEPA, Region 4 (INTERNET E-mail Memorandum)

Ms. Yolanda Adams, USEPA, Region 4 (INTERNET E-mail Memorandum)

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

 07-16-98  
(Clerk) (Date)

Date: 6/29/98 10:26:53 AM  
From: Joseph Kahn TAL  
Subject: Condition Change for FPL Manatee TV Permit  
To: Gerald Kissel TPA

Jerry,

Scott asked me to e-mail the proposed change for FPL Manatee's TV permit. Specific condition A.35 currently reads:

A.35. Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a summary report of the daily averages of sulfur dioxide emissions in pounds per hour (or tons per hour) and pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired.  
[Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

Prior to issuance of this permit we agreed to change that language to match more appropriately the compliance method specified in the Draft TV permit. Unfortunately, we forgot to make this change in the Final permit. So, this condition should have read:

A.35. Sulfur Dioxide Emission Report. The owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Southwest District, Air Section, a report of the monthly averages of sulfur dioxide emissions in pounds per million Btu, for each month of the preceding calendar quarter. The report shall include the quantities of each fuel fired and document the heating value, density or specific gravity, and the percent sulfur content of the fuel fired, based on the monthly analyses.  
[Rule 62-4.070(3) and 62-213.440, F.A.C., AO 41-204804 Specific Condition 6, AO 41-219341 Specific Condition 6]

We were going to change the condition as shown above, but FPL requested we change it instead to the following, which better reflects the compliance method for the fuel sulfur limitation that FPL agreed to use to satisfy EPA's objection to this permit. (There was no fuel sulfur limitation in the Draft permit, but FPL accepted a fuel sulfur limitation in the Final permit.)

A.35. Fuel Analysis Report. The owner or operator shall, by the fifteenth day of each month, submit to the Department's Southwest District, Air Section, a report of fuel analyses that are representative of each fuel fired in the preceding month. The report shall document the heating value, the density or specific gravity and the percent sulfur content by weight of each fuel fired.  
[Rule 62-4.070(3) and 62-213.440, F.A.C. and request of the applicant, June 9, 1998]

We really have no problem with what FPL has requested, but wanted to check with you first. Please let me know if you have any opinion either way. Thanks.

-Joe

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AUG 08 1998

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*Joe - I didn't get to this  
in time to comment  
to ~~the~~ permit to go final. But I have  
no objection ~~to~~ To the final result.  
- JKR 7/28/98*