

August 24, 2005

Dr. Ching Guey
PRA Supervisor
Florida Power and Light Company
Mail Code ENG/JB
700 Universe Boulevard
Juno Beach, FL 33408

Dear Dr. Guey:

In response to your request for the most recent versions of the Standardized Plant Analysis Risk (SPAR) models for the St. Lucie 1 and 2 plants, enclosed are two (2) compact disks (CDs). Each CD contains the software for the most recent version of the Revision 3 SPAR models for St. Lucie 1 and St. Lucie 2, along with Version 7.25 of the SAPHIRE suite of probabilistic risk assessment (PRA) computer codes. The SAPHIRE code suite is required to perform analyses with the SPAR models. Also enclosed for your use is a hard copy of the user's manual for each of the two SPAR models. All of the software packages are in the form of executable files that can be run directly from the CD. These items are for your organization's use only and are not to be distributed further without the consent of the Nuclear Regulatory Commission (NRC). Also please note that each SPAR model contains plant-specific information which is not subject to public disclosure, and should be treated accordingly.

The Revision 3 SPAR models for St. Lucie 1 and St. Lucie 2 have each been reviewed onsite with the plant's PRA staff and benchmarked against the PRA model for that plant. In addition, each SPAR model was subjected to a more in-depth review against the respective plant's PRA during a recently completed cut set level review. This review was similar to the comparison exercise that we conducted with the pilot plants in the Mitigating Systems Performance Index (MSPI) Development Program. Based on the results of the onsite quality assurance (QA) reviews, the results of the MSPI comparison exercise, and feedback received from NRC staff analysts using the models, we have identified a number of modeling and methodology issues that contribute in varying degrees to the differences observed between the SPAR models and the plant PRAs. As part of our Revision 3 SPAR model enhancement effort, we have evaluated the specific impact of each of the applicable issues on the baseline overall core damage frequency (CDF). From the results of this work, we then prepared for each SPAR model a table identifying the specific issue, any appropriate plant-specific comments, and a quantitative assessment of the impact of each issue on the estimated overall baseline CDF. Since we believe that the information regarding model limitations provided in the issue summary table will be of benefit to your PRA staff analysts when they perform analyses with the SPAR models, the option has been provided to view this table when the SPAR model is first opened with SAPHIRE.

Although the Revision 3 SPAR models have been certified as acceptable for unrestricted use, we advise analysts to understand the inputs and assumptions inherent in the models and to apply model results giving them due consideration. The modeling and methodology issue summary table mentioned above should prove helpful in this regard. The Revision 3 SPAR models have been designed to capture the significant risk contributors associated with internal

event initiators for plants operating at full power. Therefore, these models may not provide the level of detail necessary to capture the risk from the less significant contributors. Thus, for a particular application, the analyst may obtain results that do not appear to be reasonable. Questions about the models should be addressed to Mr. Robert Buell of the Idaho National Laboratory (INL) at (208) 536-9400 (e-mail address: robert.buell@inl.gov). Questions about the SAPHIRE code suite should be addressed to Mr. Ted Wood, INL, at (208) 526-8729 (e-mail address: ted.wood@inl.gov). Questions and suggestions may also be directed to either of these gentlemen or to Dr. Patrick O'Reilly, NRC project manager for SPAR model development, at (301) 415-7570 (e-mail address: pdo@nrc.gov).

If you would like to receive on-going technical support for SAPHIRE and your organization is not already a member, you are invited to join the SAPHIRE Users' Group. Mr. John Schroeder, INL, at (208) 526-8755 (e-mail address: john.schroeder@inl.gov) can provide more details about the group and the services offered.

Due to the potential sensitivity of the information contained in the enclosures, they are not publicly available.

Sincerely,

/RA/

Charles E. Ader, Director
Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research

Enclosures: As stated

cc w/o enclosures: J. Wiggins/C. Papierello, RES.

event initiators for plants operating at full power. Therefore, these models may not provide the level of detail necessary to capture the risk from the less significant contributors. Thus, for a particular application, the analyst may obtain results that do not appear to be reasonable. Questions about the models should be addressed to Mr. Robert Buell of the Idaho National Laboratory (INL) at (208) 536-9400 (e-mail address: robert.buell@inl.gov). Questions about the SAPHIRE code suite should be addressed to Mr. Ted Wood, INL, at (208) 526-8729 (e-mail address: ted.wood@inl.gov). Questions and suggestions may also be directed to either of these gentlemen or to Dr. Patrick O'Reilly, NRC project manager for SPAR model development, at (301) 415-7570 (e-mail address: pdo@nrc.gov).

If you would like to receive on-going technical support for SAPHIRE and your organization is not already a member, you are invited to join the SAPHIRE Users' Group. Mr. John Schroeder, INL, at (208) 526-8755 (e-mail address: john.schroeder@inl.gov) can provide more details about the group and the services offered.

Due to the potential sensitivity of the information contained in the enclosures, they are not publicly available.

Sincerely,

/RA/

Charles E. Ader, Director
 Division of Risk Analysis and Applications
 Office of Nuclear Regulatory Research

Enclosures: As stated

cc w/o enclosures: J. Wiggins/C. Papierello, RES.

Distribution:
 OERAB RF
 DRAA RF

DOCUMENT NAME: G:\DRAA\CHINGGUEY1.WPD

OAR in ADAMS? (Y or N) Y ADAMS Accession No.: ML052350075 Template No. RES- 006
 Publicly Available? (Y or N) Y Date of Release to Public 08/31/05 Sensitive? N
 To receive a copy of this document, indicate in the box: "C" = Copy wo/encl "E" = Copy w/encl "N" = No copy

OFFICE	*OERAB	E	*OERAB	C	*EOERAB	C	*DRAA	C
NAME	PO'Reilly		MCheok		NChokshi		CAder	
DATE	8/19/05		8/22/05		8/23/05		8/24/05	

OFFICIAL RECORD COPY

(Res File Code: 2C-3)