

June 13, 2001

MEMORANDUM TO: Michael R. Johnson, Chief
Inspection Program Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

FROM: F. Mark Reinhart, Acting Chief **/RA/**
Probabilistic Safety Assessment Branch
Division of Systems Safety and Analysis
Office of Nuclear Reactor Regulation

SUBJECT: RESULTS OF THE DIABLO CANYON SDP PHASE 2 NOTEBOOK
BENCHMARKING VISIT

Between April 10, and April 12, 2001, NRC staff and a contractor visited Diablo Canyon to compare the Significance Determination Process (SDP) Phase 2 notebook and licensee's risk model results to ensure that the SDP notebook was generally conservative. Since Diablo Canyon has a "complete" level I PRA, the benchmark group performed an analysis to determine the impact of not considering external initiators and internal flooding in the current revision of the SDP notebooks. In addition, the results from the NRC's draft Revision 3i Standard Plant Analysis Risk (SPAR) model for Diablo Canyon was also compared with the licensee's risk model.

Attachment A describes the process and results of the comparison of the Diablo Canyon SDP Phase 2 Notebook and the licensee's PRA. Attachment A also contains the insights gained from the group's analysis of the impact of not considering external initiators and internal flooding in the current revision of the SDP notebook.

Attachment B describes the results from the comparison of the Diablo Canyon SPAR model and the licensee's PRA.

Attachment C is a draft of the guidance used to perform the comparisons.

If you have any questions regarding this effort, please contact Peter Wilson.

CONTACT: P. Wilson, SPSB/DSSA/NRR
301-415-1114

Attachments: As stated

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**SUMMARY REPORT ON BENCHMARKING TRIP TO DIABLO CANYON
(APRIL 10-12, 2001)**

**M. A. AZARM
BROOKHAVEN NATIONAL LABORATORY**

1. Introduction

A benchmarking meeting took place at the Diablo Canyon site on April 10-12, 2001. K. Kennedy, P. Wilson, and S.M. Wong from NRC along with M.A. Azarm from BNL participated in this benchmarking exercise.

In preparation for the meeting, BNL staff reviewed the SDP notebook for Diablo Canyon and performed comparison of the delta Core Damage Frequency (CDF) estimated by the On Line Maintenance (OLM) software and that of the SDP worksheet. All comparisons were consistent with the exception of the safety injection and charging system trains. Therefore, these system trains were considered for detail benchmarking at the site. In addition, a copy of the meeting protocol was sent to the licensee by P. Wilson of NRC prior to the meeting.

The major milestones achieved during this meeting were as follows:

- 1) Discussed Licensee's comments on the Rev-0 SDP notebook.
- 2) Obtained four diskettes containing Excel files for the Risk Achievement Worth (RAW) values for basic events and the "Tops" associated with the licensee's internal model including flooding initiators, and the full model containing all external initiators.
- 3) Identified a target set for "Tops" and the basic events for the benchmarking exercise.
- 4) Performed initial benchmarking on the "Tops" events and proposed several modifications to the SDP worksheets that were consistent with the licensee's model and justifiable based on the current plant design and procedures.
- 5) Performed a second set of benchmarking for both the "Tops" and basic events using the SDP worksheets modified with the proposed changes.
- 6) Requested additional risk importance calculations from the licensee comparing the RAW values from the internal events model with those from the full model to better understand the impact of the external initiators.
- 7) Discussed the major scenarios for flood, fire, and seismic initiators and their relative contribution to the CDF.

- 8) A benchmarking exercise was also performed for SPAR models based on the OLM software. Areas of discrepancy were identified and additional sensitivity analyses were requested from licensee.

The benchmarking exercise resulted in insights for significant improvement in the SDP notebook. The modified SDP notebook should be capable of providing either similar or more conservative risk significance determinations than the licensee's model in about 95% of the cases analyzed. The benchmarking exercise also indicated that the effect of fire, flood, and seismic initiators could increase the significance determination of inspection findings with about one order of magnitude.

2. Summary Results From Benchmarking

This Section describes the results of comparison studies obtained from the benchmarking exercise. The results are summarized in two tables. Table-1 presents the results of benchmarking for two cases. The column denoted as SDP0 shows the colors obtained from the original SDP worksheets, whereas the column denoted as SDP1 shows the colors that will be obtained if the SDP notebook is modified using the proposed modifications described in Section 3. It should be noted that the RAW values used for this exercise were obtained from the current plant PRA model which is different from those calculated using OLM software prior to the meeting. The original SDP worksheet missed 5 out of 36 cases analyzed (estimated by a color below the plant model). This translates to about a 15% miss rate for the original SDP notebook. It should be noted that the Tops are significant events (typically sub-tree top events). The miss rate for the modified SDP notebook based on the proposed modifications dropped to 1 out of 36, slightly below 3%. The one “Top” event which deals with failure of HPR through charging pumps only, resulted in two whites which fell short of a “Yellow” color. It should be noted that the RAW values were derived with consideration of flooding scenarios (there are two major flooding scenarios in Diablo Canyon). It is possible that the missing color may be largely due to the lack of consideration for flooding scenarios in the SDP worksheets. However, this has not yet been verified.

Table -1: Summary benchmarking results for the “Tops”

Tops	Description	RAW(D)	(SDP0)	(SDP1)
SV	Loss of 480V SWGR Ventillation	2.2E4	White	Red
CC	Loss of CCW	4.1E3	Red	Red
AS	Loss of ASW	3.99E3	Red	Red
RT	Reactor Trip	8.27E2	Red	Red
VI	Reactor Vessel Integrity	4.85E2	Red	Red
AW	Loss of AFW	4.81E2	Red	Red
RW	RWST Failure	3.24E2	Red	Red
FO	Fuel Oil Transfer Pump	2.35E2	Red	Red
DG	125VDC (12)	2.08E2	Red	Red
DH	125VDC (13)	1.88E2	Red	Red

DF	125VDC (11)	5.31E1	Red	Red
AG	4 KV 1G	4.28E1	Yellow	Red
AF	4 KV 1F	4.2E1	Yellow	Red
OG	230 KV offsite Grid (assumed Loop with possible recovery at 5 hours)	3.6E1	Red	Red
RF	Failure to switchover	3.48E1	Red	Red
PR	Pressure Relief (Failure of F&B)	30.7	Red	Red
SE	RCP Seal Cooling (SLOCA due to RCP seal failure was set to 0.1)	29.5	Red	Red
AH	Bus 1H	19.7	Yellow	Red
OP	Operator Secure injection (considered only for MSLB in the SDP)	8.71	Yellow	Yellow
SL	Isolate Secondary Side of SG	6.64	Red	Red
LI	Failure of 3 out of 3 injection paths	6.64	Red	Red
I4	AC Instrument Inverter I4 (Assume causes loss of SSPS train B, In worksheet for Loop with failure of Bus G no HPR)	6.38	Yellow	Yellow
I1	AC Instrument Inverter channel I1 (Loop with failure of Bus G no ASW-recovery only)	6.35	Yellow	Yellow
WL	Water Level for Sump Recirc.	5.63	Red	Red

CV	Failure of control room ventilation (Assume it can result in Loss of SSPS if note recovered Credit 3 for recovery and credit 2 for shutdown from remote control room)	5.30	Yellow	Yellow
LV	CCF of RHR Suction from RWST	5.10	Yellow	Yellow
I2	AC Instrument Channel I2	5.02	Yellow	Yellow
I3	AC Instrument Inverter I3	4.44	Yellow	Yellow
RC	Failure to supply recirculation cooling (charging only)	2.55	2 Whites	2 Whites
SG	SU Feeder breaker for bus G (Loop frequency was increased by a factor 10)	1.92	Yellow	Yellow
AC	Failure of acc. For cold leg injection	1.47	Yellow	Yellow
LA	RHR Train A starts and run	1.74	Yellow	Yellow
VA	RHR Pump 1 Cont. Sump suction valve	1.46	Yellow	Yellow
LB	RHR Train B Starts and run	1.25	Yellow	Yellow
OB	F&B	1.20	Yellow	Yellow
CD	Condensate	1.17	Yellow	Yellow

Table-2, summarizes the results for eleven basic events in the current licensee PRA model. The licensee performed detailed runs for these basic events and provided output files that included the relative contributions to the various initiators and the list of dominant cutsets. The availability of this information allowed detailed comparisons of the results with the individual SDP notebook. The modified SDP worksheets were used for this comparison. For comparison to the "TOPS" events, singular basic events typically are not very risk significant. Therefore, both the false alarm and the miss rates of the SDP notebook are expected to increase. The SDP notebook underestimated the unavailability of the TDAFW (2 whites instead of yellow). The flood scenario "FL1" was considered in deriving the internal events RAW estimate of the TDAFW pump;

however, it was not by itself sufficient to justify the differences (approximately 2E-6). The false alarm rate was also increased to almost 10% as expected, that is, a more conservative color in 1 out of 11 cases were estimated by the SDP notebook. Finally, the results shows that in 5 out of 11 cases the inclusion of flood, fire, and seismic scenarios could impact the assignment of color coding. It appears that the effect of fire and flood is more pronounced than seismic initiators.

Table-2: Summary benchmarking results for the “Basic Events”

Basic Event	Internal +Flood (Numbers in the Parentheses exclude flood)	Fire	Seismic	Total	Modified SDP Colors
ASW X-tie (FCV-601)	8.7E-6	4.75E-5	3.3E-6	5.8E-5	Yellow
TDAFW	1.4E-5	1.15E-5	4.5E-6	1.6E-5	2 Whites
DG-13	4.1E-5	2.0E-6	1.0E-5	5.1E-5	Yellow
SIP-12	1.0E-6 (8.6E-7)	NA	NA	1.0E-6	White
SIP-11	5.0E-6 (7.0E-7)	NA	NA	5.5E-6	White
CCP-11	5.5E-6 (7.6E-7)	NA	NA	5.5E-6	White
CCP-12	6.6E-6 (1.5E-6)	NA	NA	6.6E-6	White
PORV-455C fail to re-seat	1.1E-6	NA	NA	1.9E-5 (mainly fire)	White
Inverter-4	6.3E-5	NA	NA	7.6E-5	Yellow
One CCW Pump	8.5E-6	5.8E-6	1.0E-6	1.4E-5	Yellow (LCCW Freq. Was increased by 10)

One ASW Pump	2.78E-5	5E-7	2E-7	2.8E-5	Yellow (LCCW Freq was increased by 10)
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3. Proposed Modifications to Rev-0 SDP notebook

A set of modifications were proposed for the Rev-0 SDP notebook as a result of the site visit. These proposed modifications are guided by the licensee’s comments on the Rev-0 SDP notebook, better understanding of the current plant design features, allowance for additional recovery actions, improved Human Error Probabilities (HEP), modified plant specific accident initiator frequencies, and the results of benchmarking.

3.1 Specific Changes to the Rev-0 SDP Notebook for Diablo Canyon

A listing of the plant specific modifications to the Rev-0 SDP notebook for Diablo Canyon are provided below:

1. Table-1: Move DC11, DC12, and DC13 to Row IV
2. Table-1: Move Loss of 480V Switchgear Ventilation to Row V.
3. Table -1: Add a footnote that loss of two 125 V instrument Ac could cause trip, but loss of one bus (e.g. I4) could cause loss of one train of SSPS and one train of the associated Safety systems.
4. Table-2: IA- They have added a new compressor and not all compressors require 125 VDC. In addition, all compressor except one require service cooling water which can also be provided by unit cross tie or fire water.
5. Table-2: Consider changing the RCP to RCP seals and identify all for the “initiators” column.
- 5a. Table 2: Add a footnote that says: The EDG fuel day tank is sufficient for only 1.5 hours. Therefore, loss of the fuel oil transfer pumps make the EDGs unavailable after 1.5 hours. So failure to restore offsite power in five hours would result in core damage in Loop Scenarios.
6. Table-2: Remove pressure from Control Room Ventilation (CRV).

7. Table-2: Remove Primary Water System and change it to Make Up To RWST. First choice is Spent Fuel Pool and spent fuel transfer pumps followed by Boric acid transfer pumps and storage. They are all fed from emergency AC.

8. Table-3: Note 1, change open to as is.

9. Table-3: Battery depletion time full load is 7 hours per calculation.

10. Table-3: Note 6: add External to cooling for EDGs.

11. Table-3: footnote 9 should indicate that the CDF for internal + flood is 1.04×10^{-5} , internal only 8×10^{-6} , Seismic 3.12×10^{-5} , and Fire 1.33×10^{-5} per year.

12. SDP notebook, add a transient worksheet.

13. Need to add a footnote to show that RWST can be credited in addition to HPR for transient, SLOCA, etc.

14. Long Term RCS Makeup (SGTR) change to spent fuel pool pump and give a credit of 3 (add footnote for HEP) for operator action and say in a footnote that they are other options available.

15. ATWS, add AMSAC for TTP and change HEP to 3.

16. Emergency Boration (Credit 3) and footnote.

17. In MSLB explicitly identify isolation of AFW to the affected SG. Change the operator action credit to 2.

18. These Comments apply to DC11, 12, 13.

DC11: Automatic trip removes power from reactor breakers, and all MSIVs close; therefore, no PCS. The main feedwater reg valve fail as is. The new frequency is 3.7×10^{-4} per year.

DC12: Automatic trip removes power from reactor breakers, and 2/4 MSIVs fail closed, and failure of MFWP1-1. PCS could be credited in this initiator with reduced mitigation capability.

DC13: Manual Scram, 2/4 MSIVs fail closed, and failure of MFWP1-1. PCS could be credited in this initiator with reduced mitigation capability. Add a footnote that allows restoring the air to containment. That way we can open the PORV 474 for F&B a credit of 1.4×10^{-2} for HEP).

- 19) In LCCW, change the description of ACCP to include the operator action for X-tie of ASW and give a credit of 2 for both. Add a footnote that an inspection finding for the X-tie or the fire water would result in changing this credit to 1.
- 20) In SWVE change the frequency to 2.7E-5 and combine both DOOR and ALVE to one with a HEP credit of 3. Remove “ was not found in IPE..” and say it comprises of temporary portable fan systems.
- 21) In LOIA, add the frequency which is 2E-2.
- 22) In LACF, add a footnote to talk about recovery action by x-tie within and across the units.
- 23) Standard set of about 14 comments that have already been identified as a part of NRC’s review of the SDP notebooks but their incorporation is left for the maintenance phase.

Some other important notes to remember:

1. Scope and limitation of the SDP notebook: SDP work sheets can not account for the complex system interactions that are usually accounted for by use of fault tree analyses and sub-tree transfer. Some consideration has been given to this issue. Through these considerations, the SDP currently accounts for primary dependency, and up to two level dependency if one involves electrical systems. The following are the considerations currently incorporated in the SDP notebook.
 1. The system level dependency, Table 2 allows consideration of dependency impact when there is an inspection finding.
 2. The special initiators account for dependencies when the support system failure, either full or partial, can result in reactor scram or shut down.
 3. The initiators such as a LOOP with loss of one Emergency AC (EAC) bus, are designed to capture the AC dependencies which could have otherwise been missed.
 4. Explicit accounting of the support system as a part of full mitigation capability when the support function is the limiting factor. An example could be in LOOP with loss of one EAC; the success criteria for HPI could be defined as “ 1/1 charging or 1/1 SI with 1 out of 1 remaining ASW train (1 train system)”.
2. Loss of inverter or an AC channel may not result in scram; however, it could disable one train of all safety systems through SSPS (Solid State Protection

System but not the scram signal through Eagle system). This should be considered as a part of color coding exercise.

3. Some unit to unit cross ties are very important. In the case of Diablo Canyon, the ASW cross tie which is basically one valve FCV-106 is quite important. This valve is typically fed from unit-1 emergency AC division (Bus F). On Loss of offsite power with loss of EAC division F, there is no power available to this valve and the recovery credit of 1 should be used for manual operation (otherwise credit of 2).

3.1 GENERIC CHANGE IN 0609 FOR INSPECTORS

When inspection findings affect the number of redundancies such that the total number of trains available is less than two times the number of trains required, then a credit of one train should be given.

3.2 GENERIC CHANGE TO THE SDP Notebook

When the mitigating capability of a system is limited by availability of its support, and the support mitigation capability is only one train, then a credit of 2 should be assigned to the whole mitigation capability.

4. Discussion on External Events

The following provides a summary discussion on the external events' scenarios for future consideration. The annual core damage frequency contribution from internal, flood, fire, and seismic initiators are $8.E-6$, $2.1E-6$, $1.33E-5$, and $3.12 E-5$ respectively.

4.1 Flood Scenarios

There are two flood scenarios in Diablo Canyon, FL1 and FL2. FL1 constitutes a large flood in the CCW system resulting in system depressurization with a frequency of $1.4E-3$ per reactor year. Such floods would most likely occur during maintenance; therefore, a credit of 0.1 is taken for isolation. The event tree for loss of CCW could be used for the remainder of the analysis.

The FL2 scenario begins with a suction header pipe break event resulting in failure of the charging system. The frequency of this scenario is $7.9E-4$. The flood scenario appears to be a transient with loss of charging system; therefore, it could be modeled accordingly in the SDP notebook.

4.2 Fire Scenarios

There are a total of 8 fire scenarios (FS1 through FS8) modeled in the current PRA for Diablo Canyon. In addition, it appears that various scenarios were also modeled for fire in the control room and cable spreading room. In control room fires, there is some concern regarding the impact of fire on the PORVs.

Due to lack of detailed information and the complexity of the various fire scenarios, the adequacy of the current SDP notebook or the necessary modifications to evaluate the fire scenarios cannot be addressed at this time.

4.3 Seismic Scenarios

There are six classes of seismic intensity modeled in the current Diablo Canyon PRA. The seismic intensity covers from twice the Safe Shutdown intensity to the intensity equivalent to Peak Ground Acceleration (PGA) of about 1.5 m/Sec^2 . The impact of seismic events could vary from simple loss of electrical grid (LOOP) to the collapse of switchgear room depending on the seismic intensity. Due to lack of detailed information at this time, no assessment is made on the adequacy or potential modifications of the SDP notebook to address the seismic events.

Comparison of Component Sensitivity Calculations Between Diablo Canyon Online Monitor and NRC SPAR Model

The Benchmark Group performed sensitivity calculations to compare the risk results of hypothetical inspection findings using the licensee's Online Monitor and the NRC's Diablo Canyon SPAR model. The SPAR model results differed by an order of magnitude from the licensee's Online monitor 46% of the cases reviewed. The SPAR model calculated a lower risk result by at least an order of magnitude than the licensee's model 29% of the time and calculated a higher risk result by at least an order of magnitude 17% of the time. Data was collected and forwarded to the Office of Research to assist in identifying the reasons for the above differences.

Component Out of Service	DC Online Monitor¹ delta CDF²	NRC SPAR delta CDF³	SPAR Deviation
MDAFW Pump 12	2.4E-5	4.9E-5	H
MDAFW Pump 13	3.2E-5	2.8E-5	L
Charging Pump 11	9.7E-6	2.8E-6	L
Charging Pump 12	1.2E-5	4.1E-5	H
Safety Inj Pump 11	9.3E-6	2.7E-6	L
Safety Inj Pump 12	1.1E-5	3.0E-6	L
CCW Pump 11	1.4E-5	5.7E-6	L
CCW Pump 12	1.0E-5	3.1E-6	L
CCW Pump 13	3.7E-5	4.0E-6	L (~10X)
AUX SW Pump 11	5E-5	1.4E-7	L (~100X)
AUX SW Pump 12	4.4E-5	2.2E-7	L (~100X)
EDG 11	1.5E-5	2.7E-4	H (~10X)
EDG 12	4.8E-5	6.5E-5	H
EDG 13	3.9E-5	2.7E-4	H (~10X)
DFO Xfer Pump 11	4.2E-6	Not Modeled	
DFO Xfer Pump 12	4.9E-6	Not Modeled	
TDAFW Pump 11	3.8E-5	8.2E-5	H
PORV 455C	2.0E-7	7.6E-6	H (~10X)
PORV 456	8.0E-7	7.4E-6	H (~10X)

Component Out of Service	DC Online Monitor¹ delta CDF²	NRC SPAR delta CDF³	SPAR Deviation
CCW HX	2.2E-6	3.6E-6	H
SSPS A	7.4E-5	Not Modeled	
SSPS B	7.8E-5	Not Modeled	
CRVS	8E-7	Not Modelled	
Startup XFMR	4.3E-5	Not Modeled	
ASW X-TIE FCV-601	3.1E-5	3.5E-8	L (~1000X)
Batt Charger 11	4.8E-6	0	L (>1000X)
Batt Charger 12	1.4E-5	0	L (>1000X)
Batt Charger 32	1E-5	0	L (>1000X)
RHR Pump 11	3.3E-5	1.3E-5	L
RHR Pump 12	3.6E-5	1.3E-5	L

Notes

1. Delta CDF represents the change in CDF due to component out of service for 1 year.
2. DC Online Monitor is a “zero maintenance” model and does not adjust common cause failure probabilities.
3. NRC SPAR model includes equipment unavailability due to test and maintenance and adjusts common cause failure probabilities.

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BENCHMARKING STANDARD FOR SDP PHASE TWO WORKSHEETS

This standard compares the SDP Phase 2 notebook and licensee risk model results to ensure that the SDP is generally conservative. The benchmarking should be performed after the worksheets have been revised to include the appropriate licensee comments and recommendations, and the special initiator worksheets have been completed. The benchmarking should be performed by a SRA or OST risk analyst and a BNL risk expert.

PREPARATION

Preparation is essential for successful benchmarking of the SDP notebooks. The benchmark teams needs to identify those hypothetical inspection findings that will expose weaknesses in the SDP notebooks. In addition, if possible, the benchmark team needs to determine the risk impact of external and internal flooding initiators which are currently not considered in the SDP notebooks.

Preparation prior to the site visit

In order to facilitate the site visit , the benchmark team should contact the licensee to discuss the benchmark plan. If possible, the team should request the following information be made available at the beginning of the site visit :

- a) Description of basic events
- b) Copy of all event trees in the model
- c) Risk achievement worth (RAW) for the basic events in the complete model. Complete model contains both internal (internal initiators and internal floods) and external (seismic, fire, external floods, high winds) events.
- d) Risk achievement worth (RAW) for the basic events in the internal events model.

Case runs may be identified prior to site visits during the above discussion for the licensee to calculate.

The team should ensure that the licensee has a copy of the site's Rev. 0 of the SDP Phase 2 notebook, and this document.

Preparation on site

Upon arrival on site the team should meet with the licensee staff to discuss the objectives of this site visit. At this time, the team will solicit any comments that the licensee may have on the site's Rev. 0 SDP notebook.

Following the review of the licensee's information, the team should identify those areas in the SDP document that require benchmarking. The following guidance is provided below to assist the team to determine such areas:

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- a) Determine the Risk Achievement Worth (RAW) for basic events, using the licensee's internal events model (with maintenance/testing unavailabilities included) that represents a delta core damage frequency of $1E-6$ /yr or greater.
- b) Using the results from a), identify the basic events that can be mapped into the sequences on the SDP phase 2 worksheets.
- c) Compare the RAWs from the complete model to those from the internal events model. Identify those with a significant difference (one or more color difference) that may reveal the impact of external event contributions.
- d) The BNL team member should utilize the following guidance to identify the specific initiators that should be benchmarked:
 - i) those initiators for which generic trees have been developed, e.g., MSLB and SGTR
 - ii) those initiators with a low likelihood of occurrence that were not well described in the licensee's IPE. For example, special initiators within rows 3 and 4 of Table 1 of the SDP notebook.

Based on the above analysis, the team should identify potential candidates for sensitivity studies. In addition to the above items, the team should also include the base case set of items that are generically defined for classes of plants for sensitivity studies.

ASSESSMENT PHASE

During the assessment phase the team will identify those areas of the SDP notebook that need to be revised.

- a) The team should request the licensee to perform those sensitivity calculations identified in the preparation phase.
- b) The team should perform parallel sensitivity analyses using the SDP notebook.
- c) In those areas where the SDP notebook underestimates the impact, the team should investigate the underlying reasons.
- d) The team should identify those basic events with a RAW value (from the internal-events-only model) corresponding to delta core damage frequency of $1E-6$ /yr or greater that are not included in the SDP notebook.
- e) The team should identify those basic events with a RAW value (from the full model) corresponding to delta core damage frequency of $1E-6$ /yr or greater that are not included in the SDP notebook.

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- f) The team should discuss with the licensee those risk-significant dependent human actions that are modeled in the licensee's PSA. The team should then determine if the SDP notebook should be revised.

The team should compile those areas where differences existed between the SDP notebook and the licensee's PSA. In addition, the team should identify the subset of these areas which require revision to the SDP notebook.

CONCLUSION OF VISIT

The team should meet with the licensee to discuss the results of the benchmarking effort. The team should communicate to the licensee those areas of differences that will be included in the next revision of the SDP notebook.

POST-VISIT REPORT

BNL will prepare a post-visit report that includes the following:

1. Summary of the areas reviewed
2. Areas of differences identified
3. Reasons for differences identified
4. Proposed revisions to the SDP notebook.