



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

June 25, 2013
NOC-AE-13003010

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

South Texas Project
Units 1 & 2
Docket Nos. STN 50-498, STN 50-499
Multi-Unit Dose Assessment Capability

Reference: NEI Letter, Commitment for Implementation of Multi-Unit Dose Assessment Capability; Pollock to Wiggins; dated March 14, 2013 (ML13073A522)

In the referenced letter, the nuclear industry agreed to provide a letter to the NRC staff from each licensee that addresses the following subjects:

- A summary of the current capability to perform multi-unit/multi-source dose assessment.
- For those who do not have this capability, the anticipated schedule to establish it on an interim and/or permanent basis. It is expected that interim measures will be available to perform this function prior to implementation of a permanent solution.
- Due dates associated with each key schedule action or milestone.
- A description of how the implementation schedule will be tracked and the associated tracking identifiers (e.g., a commitment tracking or corrective action system number).

In accordance with the referenced letter, STP Nuclear Operating Company (STPNOC) provides the attached information concerning our capability to perform offsite dose assessment during an event involving multiple release sources.

There are no commitments in this letter.

If there are any questions regarding this letter, please contact Robyn Savage at (361) 972-7438 or Joseph D. Enoch at (361) 972-8767.

G. O. Hildebrandt
Manager, Plant Protection

Attachment: STP Multi-Unit / Multi-Source Dose Assessment Capability
rds

ADD
NRR

STI 33705602

cc:
(paper copy)

Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
1600 East Lamar Boulevard
Arlington, TX 76011-4511

Balwant K. Singal
Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North (MS 8 B1)
11555 Rockville Pike
Rockville, MD 20852

NRC Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 289, Mail Code: MN116
Wadsworth, TX 77483

C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

RMS

(electronic copy)

A. H. Gutterman, Esquire
Morgan, Lewis & Bockius LLP

Balwant K. Singal
U. S. Nuclear Regulatory Commission

John Ragan
Chris O'Hara
Jim von Suskil
NRG South Texas LP

Kevin Pollo
Richard Pena
City Public Service

Peter Nemeth
Crain Caton & James, P.C.

C. Mele
City of Austin

Richard A. Ratliff
Texas Department of State Health
Services

Robert Free
Texas Department of State Health
Services

Sue Perkins- Grew
Nuclear Energy Institute (NEI)

STP Multi-Unit / Multi-Source Dose Assessment Capability

1. Summary of current capability to perform multi-source dose assessment:

South Texas Project (STP) Units 1 and 2 uses the South Texas Assessment Model Projecting Estimated Dose Evaluation (STAMPEDE) computer program described below to perform dose assessment calculations under emergency conditions. STAMPEDE is a Windows-based, menu driven program which has the capability to provide near real time estimates of potential doses to individuals from releases of radioactive materials via the atmospheric pathway and to back-calculate release rates from field measurements.

STAMPEDE uses a straight-line Gaussian plume model for initial dose projections within the Plume Exposure Pathway Emergency Planning Zone (EPZ). It uses a segmented-plume model for tracking wind shifts and plume deposition over portions of the Ingestion Exposure Pathway EPZ. STAMPEDE can use system parameters and radiation monitor readings from plant monitoring systems, or the results of in-plant sampling, to estimate the source term and release rate. It then uses these values with meteorological data, which are input manually, to estimate plume location and to calculate projected doses. STAMPEDE can also use default data in the absence of plant-specific data. Plume transport and diffusion are normally based on meteorological data measured on the site meteorological tower. In the event that the meteorological data from the tower is unavailable, data is obtained from the National Weather Service or Impact Weather Service.

STAMPEDE currently models a release from a single pathway for one unit. Release pathways include, monitored unit vent release, unmonitored containment release, monitored steam generator tube rupture release, and an unmonitored steam generator tube rupture release. Source terms for five pre-defined source terms are used to manually input data taken from plant monitors. The five source term options are: noble gas; noble gas and iodine; coolant inventory; gap activity; and core melt inventory. STAMPEDE also provides an option to manually enter a radionuclide mix inventory.

In order to perform multi-unit and/or multiple release pathway dose assessment, STP would perform individual computations for each unit and/or each release path. The results of these runs would be manually added together to provide a dose estimate from all release sources.

2. Schedule to establish multi-unit/multi-source dose assessment capability

STP will implement interim measures for multi-unit/multi-source dose assessment capabilities by October 30, 2013. Permanent capabilities will be implemented no later than December 31, 2014.

STP Multi-Unit / Multi-Source Dose Assessment Capability

Due dates associated with each key schedule action or milestone

	Action/Milestone	Estimated Completion Date	CR Action No.
1	Develop procedure for interim compensatory measures for multi-unit/multi-source dose assessment capabilities.	August 22, 2013	13-3735-6
2	Develop and conduct training to implement interim compensatory measures for multi-unit/multi-source dose assessment.	October 30, 2013	13-3735-7
3	Implement procedures for interim compensatory measures for multi-unit/multi-source dose assess capabilities.	October 30, 2013	13-3735-8
4	Upgrade STAMPEDE software for multi-unit/multi-source dose assessment capability.	July 31, 2014	13-3735-10
5	Develop user manual and procedures for upgraded STAMPEDE.	August 31, 2014	13-3735-11
6	Develop and conduct training for implementing upgraded STAMPEDE.	December 31, 2014	13-3735-12
7	Implement upgraded STAMPEDE program and procedures.	December 31, 2014	13-3735-13

3. A description of how the implementation will be tracked and the associated tracking identifiers

The implementation and progress of the actions described above will be tracked using STP's corrective action program under condition report CR 13-3735 to ensure the milestones and actions discussed above are implemented under the schedule provided.