

**CSSG Tasking 2011-05**

Date Issued: 25 October 2011

Task Title: *Independent Review of Godiva Safety***Task Statement:**

The CSSG is directed to oversee and participate in an Independent Review of Godiva Safety prior to its reassembly and start-up at the Nevada National Security Site Device Assembly Facility (DAF) National Criticality Experiments Research Center (NCERC) and issue a US DOE NCSP CSSG Tasking 2011-05 Response.

**Resources:**

The review will be conducted by a Review Team that is comprised of selected CSSG members who are supplemented by ad hoc members with expertise in fast pulse reactor safety and safety basis documentation. The Review Team is to draft and provide a final tasking Response to the CSSG Deputy Chair. The CSSG Deputy Chair will distribute the Response to the full CSSG membership for review and comment. The CSSG Deputy Chair will address the CSSG member comments and forward the resulting revised Response to the CSSG Chair for transmittal to the NCSP Manager. Contractor CSSG members will use their FY12 NCSP CSSG support funding as appropriate; DOE CSSG members will utilize support from their site offices. CSSG emeritus members may be included on the team on a voluntary basis. The NCSP Manager will assure that support is available for ad hoc members.

**Task Deliverables:**

1. CSSG Review Team receives advance materials by October 21, 2011, for examination prior to the site visit.
2. CSSG Review Team meets for the work period 30 November through 2 December. A DAF NCERC site visit will be conducted to observe the planned operating environment of Godiva and its control systems. The balance of the work period may be conducted at the Nevada Site Facility or the DAF NCERC as appropriate.
3. CSSG Review Team develops a draft "US DOE NCSP CSSG Tasking 2011-05 Response" by December 9, 2011 that addresses the CSSG Tasking 2011-05 General Review Topics/Guidance/Information (see CSSG Tasking 2011-05 Attachment).
4. CSSG provides comments on the draft Response by December 14, 2011.
5. CSSG Chair briefs the NCSP Manager on the Response by December 16, 2011.
6. CSSG Chair transmits the final Response to the NCSP Manager by December 29, 2011.

**Task due date: December 29, 2011**Signed:  10/25/2011**Jerry N. McKamy, Manager US DOE NCSP**

# CSSG Tasking 2011-05 Attachment

## CSSG Tasking 2011-05 General Review Topics/Guidance/Information

### 1. Godiva Operational Safety, i.e.,

- a. Godiva System Design Description
- b. Human Machine Interface
- c. Safety Channels and their associated Safety Integrity Level analyses
- d. Nuclear Safety Control Set
- e. Operational Procedures
- f. Godiva Experimental Planning and Approval Process
- g. Godiva Start-up Plans/Schedule

### 2. Stand-alone review responses regarding

- a. The DNFSB issues relating Godiva as stated in their letter dated August 5, 2010 (see “DNFSB Letter on CEF Start-Up August 5, 2010 and its attached June 22, 2010 “Staff Issue Report”) regarding
  - i. *Inadequate Accident Analysis* of
    - 1. “Unmitigated Dose Analysis for Godiva”
    - 2. “Effects of Fuel Cracking”
  - ii. *Inadequate Control Set* of
    - 1. “Design of Safety Instrumented Systems”
  - iii. *Improper Characterization of Safety-Related Controls*
- b. The “LANL technical analysis/basis for compliance with 3009 CN3 for some SACs as an alternate accident analysis methodology at the DAF NCERC per established protocols for approving alternate methodology(ies) for implementing DOE-STD-3009 requirements of 10 CFR 830.”

## CSSG Tasking 2011-05 Subgroup Review Team and ad hoc Members

### Selected CSSG Review Team members include:

- Davis A. Reed, ORNL (CSSG Lead and Coordinator)  
[reedda@ornl.gov](mailto:reedda@ornl.gov)  
865-576-6359
- David P. Heinrichs, LLNL  
[heinrichs1@llnl.gov](mailto:heinrichs1@llnl.gov)  
925-667-1710  
925-424-5679
- James A. Morman, ANL  
[Jamorman@anl.gov](mailto:Jamorman@anl.gov)  
630-252-6076  
630-531-0911

**Ad hoc Review Team members include:**

- John T. Ford (SNL)  
[jtford@sandia.gov](mailto:jtford@sandia.gov)  
Work: 505-845-3327
- Richard L. Coats (SNL)  
[rlcoats@sandia.gov](mailto:rlcoats@sandia.gov)  
Work: 505-845-3218
- James R. Felty (SAIC and Member of ANSI/ANS 14.1)  
[James.felty@nnsa.doe.gov](mailto:James.felty@nnsa.doe.gov)  
Mobile: 301-640-6805
- Bradley J. Embrey (NNSA CDNS)  
[Bradley.embrey@nnsa.doe.gov](mailto:Bradley.embrey@nnsa.doe.gov)  
Work: 202-586-9400
- Richard C. Crowe (NNSA DNS)  
[Richard.crowe@nnsa.doe.gov](mailto:Richard.crowe@nnsa.doe.gov)  
Work: 301-903-6214
- Howard G. Goldin (NNSA NSO)  
[goldinh@nv.doe.gov](mailto:goldinh@nv.doe.gov)  
Work: 702-295-1289
- Jerry E. Hicks  
[Jerry.hicks@nnsa.doe.gov](mailto:Jerry.hicks@nnsa.doe.gov)  
Work: 505-845-6287
- Jeffrey L. Roberson  
[Jeffry.roberson@nnsa.doe.gov](mailto:Jeffry.roberson@nnsa.doe.gov)  
Work: 301-903-9228

**Point of Contact for DAF NCERC Site Access Arrangements**

- Robert Margevicius (LANL)  
[margevicius@lanl.gov](mailto:margevicius@lanl.gov)  
Work: 505-665-8965

**Point of Contact for Nevada Site Facility Meeting Room Space Arrangements**

- Dirk Schmidhofer  
[schmidhofer@nv.doe.gov](mailto:schmidhofer@nv.doe.gov)  
Work: 702-295-0159

**Distribution of Work Assignments/Responsibilities:**

Under the CSSG leadership and coordination of Davis A. Reed, David P. Heinrichs, James A. Morman and Davis A. Reed are to participate, contribute, monitor and produce the US DOE NCSP CSSG Tasking 2011-05 Response as assisted by the expertise of Review Team ad hoc members as follows:

1. John T. Ford, Richard L. Coats, and James R. Felty are to focus on reviewing and reporting on the adequacy of Godiva operational safety, e.g.,
  - a. Godiva System Design Description

- b. Human Machine Interface
  - c. Safety Channels and their associated Safety Integrity Level analyses
  - d. Nuclear Safety Control Set
  - e. Operational Procedures
  - f. Godiva Experimental Planning and Approval Process
  - g. Godiva Start-up Plans/Schedule
2. Bradley J. Embrey, Richard C. Crowe, Howard G. Goldin, Jerry E. Hicks and Jeffrey L. Roberson are to focus on reviewing and reporting on
- a. DNFSB issues relating Godiva as stated in their letter dated August 5, 2010 (see embedded "DNFSB Letter on CEF Start-Up August 5, 2010 and its attached June 22, 2010 "Staff Issue Report") regarding
    - i. *Inadequate Accident Analysis of*
      - 1. "Unmitigated Dose Analysis for Godiva"
      - 2. "Effects of Fuel Cracking"
    - ii. *Inadequate Control Set of*
      - 1. "Design of Safety Instrumented Systems"
    - iii. *Improper Characterization of Safety-Related Controls*
  - b. The "LANL technical analysis/basis for compliance with 3009 CN3 for some SACs as an alternate accident analysis methodology at the DAF NCERC per established protocols for approving alternate methodology(ies) for implementing DOE-STD-3009 requirements of 10 CFR 830."
3. Robert W. Margevicius is to facilitate Review Team access to the DAF NCERC.
4. Dirk Schmidhofer can assist in arranging Review Team meeting and work area.
5. All members of the Review Team (i.e., selected CSSG and ad hoc members) and the full CSSG membership are to examine the Tasking Responses. A "Difference of Professional Opinion" section shall be provided in each of the focused responses to address Review Team or CSSG member lack of concurrence with the consensus Tasking Response.