UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SEP 0 9 2002

Information Systems Laboratories, Inc.
ATTN: James Meyer
11140 Rockville Pike, Suite 500
Rockville, MD 20852

SUBJECT: MODIFICATION NO. 1 TO TASK ORDER NO. 3 ENTITLED, "BWR SYNERGY" UNDER CONTRACT NO. NRC-04-02-054

Dear Mr. Meyer:

This letter definitizes Task Order No. 3 Mod 1 in accordance with the enclosed statement of work. The period of performance for Task Order No. 3 is changed to run March 15, 2002 through September 30, 2003. The task order estimated cost and fixed fee is increased as follows:

	From:	By:	To:
Estimated Costs	$333,936	$271,588	$605,524
Fixed Fee	$ 25,586	20,591	$ 46,177
CPFF Total	$359,522	$292,179	$651,701

$205,332 in funds is hereby allotted to this task order bringing the total funding to $488,332 of which $453,731 represents funds for the estimated cost and $34,601 represents funds for the fixed fee. The accounting data for this task order mod is set forth as follows: APPN: 31X0200 RES-C02-484 B&R:26015110201 JCN:Y6522 BOC: 252A Obligated This Action: $205,332; Total obligated to date $488,332. Consent to subcontract is required for all subcontracts issued under this task order. Please indicate your acceptance of Task Order No. 3 by having an official authorized to bind your organization execute three copies of this document, by signing in the space provided, and return two copies to me. You should retain the third copy for your records. All other terms and conditions of this task order remain unchanged. Should you have any questions, regarding this modification, please contact me on (301) 415-8168.

Sincerely,

Stephen M. Pool, Contracting Officer
Division of Contracts

ACCEPTED:

NAME

VP

TITLE

9/10/02

DATE

TEMPLATE-ADM001

ADM02

STATEMENT OF WORK
TASK ORDER NO. 3
MODIFICATION NO. 1
BWR SYNERGY

WORK REQUIREMENTS

Task 1: BWR Synergistic Effects Risk Evaluation

This task will involve the application of a systematic top-down risk process to evaluate the increase in risk due to large power uprates in conjunction with other plant changes such as higher fuel burnup, longer operating cycles, and plant aging. The work will require close coordination with the multiple technical disciplines in the Office of Nuclear Regulatory Research. The work will consist of the following subtasks:

1) Select a candidate plant or plants for application of the top down risk process. The plant selection should consider the availability of input decks for TRAC-M, CONTAIN and MELCOR, and plant risk models (SPAR models). The selection process should also consider plant risk profiles from NUREG-1150 and other sources of plant risk information such as plant IPE's. The selection process should also take into account simple system level scaling considerations such as decay heat removal capability or venting capacity normalized to the plant power to determine if a power uprate is large compared to the existing plant capacity. The available input decks should be evaluated to determine the suitability of the available input decks for the types of analyses to be performed and the extent of the modifications that would be needed to form the analyses.

2) Apply a probabilistic screening process to select events for detailed application of the top down risk process by using available sources of plant risk information to select candidate events for detailed study. Events that contribute only to minor core damage, or can contribute to severe core damage only at extremely low frequencies, should receive less priority.

3) Work with RES to re-quantify the plant risk model using the changes in the plant due to power uprate, longer operating cycles, etc.

4) Apply a systematic hazard identification method (such as the HAZOP process to success paths looking for new failure modes (failure modes previously screened out, such as component failure due to accident loads) or new causes of existing failure modes. Modify fault logic and basic event failure probabilities as appropriate and work with RES to re-quantify the risk model.

5) Document the results in a report that explicitly identifies the scope and depth of the work, any findings on risk increases and identify any areas of concern that may require further investigation.

Estimated Level of Effort: 12 staff-months
Estimated Completion Date: 9/30/03