April 23, 2003

Dr. Budhi Sagar
Center for Nuclear Waste Regulatory Analyses
Southwest Research Institute
6220 Culebra Road, Building 189
San Antonio, TX 78238-5166

SUBJECT: EXCHANGE OF ROBERT K. JOHNSON BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND THE CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

Dear Dr. Sagar:

This letter expresses the U.S. Nuclear Regulatory Commission's (NRC's) wish to have Robert K. Johnson take part in a rotational assignment to the Center for Nuclear Waste Regulatory Analyses (CNWRA). This request is made under the CNWRA Administrative Procedure AP-008 titled: "Exchanges of Personnel Between the CNWRA and the U.S. Nuclear Regulatory Commission." This effort supports preclosure activities for the Repository Design and Thermal Mechanical Effect Key Technical Issue's work with the High-Level Waste (HLW) Branch in the Division of Waste Management.

Mr. Johnson is involved in reviewing the Department of Energy's (DOE's) work relating to preclosure operations and design of the potential geological repository at the Yucca Mountain site. He will continue to be actively involved in developing staff capability in conducting reviews of DOE's design products. The goals of this rotational assignment are for Mr. Johnson to work with the staff at CNWRA to exercise the PCSA Tool by:

(1) considering the latest DOE analyses;
(2) conceptualizing, developing, and analyzing independent event sequences based on current or planned designs;
(3) identifying and evaluating the need to develop alternative event sequence analyses and analyzing those sequences where necessary;
(4) developing examples of independent event sequence analyses, as appropriate;
(5) using PCSA Tool capabilities to develop independent event sequence examples, foreshadowing future independent analyses by the staff; and
(6) incorporating event sequences developed as part of this staff exchange into the PCSA Tool Development Progress Report, if appropriate.

To accomplish the stated goals, we believe it would be most productive that Mr. Johnson go to the CNWRA for an extended 3 week assignment. The assignment is scheduled for May 14, 2003, through June 4, 2003. The enclosure contains all the material required by Section 5.2 of AP-2.22Q-2.22Q-008. The NRC believes the proposed personnel exchange will greatly benefit Mr. Johnson, the CNWRA, and the NRC. It is the staff's understanding that the subject of this

staff exchange has been discussed and approved in principle in discussions involving cognizant CNWRA and NRC management. Therefore, your approval of this exchange is requested. If agreed, please sign and date as indicated below, and return the original signed copy of this letter to me.

Sincerely,

/RA/

Deborah A. DeMarco
NRC/CNWRA Deputy Program Manager
Program Management, Policy Development, and Analysis Staff
Office of Nuclear Material Safety and Safeguards

Enclosure: As stated

Approved: _____ _____
Dr. Budhi Sagar Date

staff exchange has been discussed and approved in principal in discussions involving cognizant CNWRA and NRC management. Therefore, your approval of this exchange is requested. If agreed, please sign and date as indicated below, and return the original signed copy of this letter to me.

Sincerely,

/RA/

Deborah A. DeMarco
NRC/CNWRA Deputy Program Manager
Program Management, Policy Development, and Analysis Staff
Office of Nuclear Material Safety and Safeguards

Enclosure: As stated

Approved: _____ _____
Dr. Budhi Sagar Date

DISTRIBUTION: NMSS/DWM r/f EPAB r/f NKStablein JRSchlueter LEKokajko BJagannath

DOCUMENT NAME: G:\EPAB\RKJohnson\CNWRA Staff Exchange RKJ.Final.wpd
Log No.: 03-058

ADAMS Accession No.: ML 031190135

OFC	DWM:NMSS		BC:DWM:NMSS		NMSS:PMDA			
NAME	RKJohnson:rmh		ACCampbell		DADeMarco			
DATE	04/ /03		04/ /03		04/ /03			

OFFICIAL RECORD COPY

This document should/should not be made available to the PUBLIC _____ / /03
(Initials) (Date)

ROTATIONAL ASSIGNMENT CONTRACT

PARTICIPANT INFORMATION

Robert K. Johnson
Mail Stop T-7J8
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
(301) 415-6900

ASSIGNMENT LOCATION

Center for Nuclear Waste Regulatory Analyses
Southwest Research Institute
6220 Culebra Road, Building 189
San Antonio, TX 78238-5166

HOST SUPERVISOR

Dr. Asadul H. Chowdhury
Center for Nuclear Waste Regulatory Analyses
Southwest Research Institute
6220 Culebra Road, Building 189
San Antonio, TX 78238-5166

ASSIGNMENT PERIOD

May 14, 2003 through June 4, 2003.

OVERVIEW OF PLANNED ACTIVITIES

The primary activity of this rotational assignment is to work with the Center for Nuclear Waste Regulatory Analyses staff to exercise the PCSA Tool. The effort supports preclosure activities for the Repository Design and Thermal Mechanical Effect Key Technical Issue's work with the High-Level Waste (HLW) Branch in the Division of Waste Management.

NMSS COMMITMENTS

As needed, Mr. Johnson will also need to interact with NRC and CNWRA staff on activities associated with the Total System Performance Assessment currently underway in HLW and Environmental and Performance Assessment Branches.

TRAINING

None.

Enclosure

POTENTIAL FISCAL AND PROGRAMMATIC IMPACTS

The cost of this staff exchange in transportation and M&IE is estimated to be $4000. There are no expected programmatic impacts from this exchange.

DETAILS OF PROGRAM PLAN

The NRC is currently preparing to review a license application for the DOE's proposed HLW geologic repository at Yucca Mountain, Nevada. As part of this license application, DOE will be conducting a preclosure safety analysis that demonstrates compliance with the preclosure performance objectives identified in 10 CFR 63.111 and the preclosure safety analysis requirements specified in 10 CFR 63.112. The PCSA tool has been developed to allow the NRC staff to identify the vulnerabilities in DOE's safety analysis. It also serves as a method to document and check the key safety features relied on by the DOE during the design, construction, and operation phases of a potential geologic repository.

Objectives for Mr. Johnson's staff exchange include working with CNWRA staff and the PCSA Tool for:

(1) considering the latest DOE analyses;
(2) conceptualizing, developing, and analyzing independent event sequences based on current or planned designs;
(3) identifying and evaluating the need to develop alternative event sequence analyses and analyzing those sequences where necessary;
(4) developing examples of independent event sequence analyses, as appropriate;
(5) using PCSA Tool capabilities to develop independent event sequence examples, foreshadowing future independent analyses by the staff; and
(6) incorporating event sequences developed as part of this staff exchange into the PCSA Tool Development Progress Report, if appropriate.

STATEMENT OF PROFESSIONAL QUALIFICATIONS

Robert K. Johnson
U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards

Mr. Johnson is a Systems Performance Analyst in the Performance Assessment Section of the Environmental and Performance Assessment Branch, Division of Waste Management. Since coming to the NRC in July, 2000, Mr. Johnson has been engaged in preclosure safety analysis and quality assurance activities with the Repository Design and Thermal Mechanical Effects (Preclosure) Key Technical Issue. Mr. Johnson has also been engaged in performance assessment activities with the Total-System Performance Assessment and Integration Key Technical Issue. Both of these activities have been in full support of the High-Level Waste program.

Mr. Johnson received a M.S. degree in Master of Science Degree, Concentration in Mathematics from Marshall University in 1996 and a B.S. degree in Mathematics from Marshall University in 1990.