



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001**
August 31, 2015

MEMORANDUM TO: Keith Compton
Accident Analysis Branch
Division of Systems Analysis
Office of Nuclear Regulatory Research

FROM: Patricia A. Santiago, Chief **/RA/**
Accident Analysis Branch
Division of Systems Analysis
Office of Nuclear Regulatory Research

SUBJECT: CERTIFICATION AS A MACCS ANALYST

Based on my review of your professional background, work experience, education, and successful equivalent completion of the MACCS Analyst Training and Qualification Plan, I have determined that you are qualified to perform technical reviews and analyses involving offsite consequence analysis supporting NRC regulatory applications at or above the level consistent with successful completion of the "MACCS Analyst Training and Qualification Plan."

Your formal education includes Bachelor of Science in Physics from Rhodes College and a Doctor of Philosophy in Environmental Science and Engineering from Clemson University. In addition, you have completed numerous training courses at the NRC including Accident Consequence Analysis (P-301), Accident Progression Analysis (P-300), Environmental Risk Assessment (H-420), and External Events (P-204), as well as external training on relevant computer codes such as HYSPLIT. You have eighteen years of professional experience in environmental risk analysis from radiological and chemical releases, including experience using a wide variety of modeling codes such as MEPAS, GENII, RESRAD, and GoldSim, and you have co-authored a graduate level textbook on human health risk assessment ("Quantitative Environmental Risk Analysis for Human Health", R A Fjeld, NA Eisenberg, and KL Compton, John Wiley and Sons, 2007). You have over ten years of experience at the NRC in performance assessment and risk assessment model development and evaluation, including leading an examination of the US Department of Energy Total System Performance Assessment Model and Pre-Closure Safety Assessment for the proposed Yucca Mountain Repository. You have demonstrated your competency with the MACCS code by completing all or significant portions of analyses supporting the development of a multi-unit source term model, the Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor, and offsite consequence analyses supporting the Level 3 PRA project and technical element development.

Thus, through my evaluation of your educational background, professional experience, NRC employment history, and MACCS Analyst Training and Qualification Plan equivalency, I have concluded that you have the necessary skills and experience to perform assigned technical review and apply the MACCS code in analyses and parameter selection to support regulatory

applications and consequence analysis work. Therefore, you are hereby certified as a qualified MACCS Analyst to perform technical reviews and analyses, research studies, confirmatory analyses, and licensing applications for activities related to consequence analysis.

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NAME	K. Compton	P. Santiago
DATE	8/26/15	8/31/15

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