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JUN 6 1986

Dr. Robert M. Cranwell
Sandia National Laboratories
Waste Management Systems
Division 6431
P.O. Box 5800
Albuquerque, NM 87185

Dear Dr. Cranwell:

SUBJECT: REVIEW OF THE Y. C. KIM REPORT

The purpose of this letter is to provide the written instructions requested by Dr. Hunter for the additional review of Dr. Y. C. Kim's report entitled "Application of Geostatistics to Nevada Nuclear Waste Site Characterization". In addition to the requested instructions some background information is also provided in the following paragraph.

An important consideration in the NRC review of the DOE's in-situ testing will be:

Would the information from in-situ testing in the exploratory shaft (at its proposed location) when combined with laboratory data, surface based test plan data and other available information, provide sufficient information about key site parameters, so that the entire repository block can be characterized with a reasonable level of confidence.

This consideration is often referred to as the "representativeness issue". In the report, Dr. Young C. Kim has suggested a possible application of geostatistics in the review of the representativeness issue. He has provided an example of the possible application of this approach to the review of the representativeness of two possible key parameters (porosity and thickness) for the NNWSI site. Although Professor Kim has used NNWSI data in his examples, the representativeness issue and his approach to it are not site-specific. Specifically Sandia's review should be directed at the applicability of the geostatistical techniques described by Dr. Kim to determining the representativeness of the data derived from the exploratory shaft in-situ

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testing to the entire repository block.

If you have any additional questions or comments in regard to this letter please contact me a FTS 427-4780.

Sincerely,

~~Original Signature~~

Sandra L. Wastler
Repository Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

cc: Nestor Ortiz
Regina Hunter

*See previous concurrence

OFC	:WMRP:vg	:WMRP	:	:	:	:
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cc: Nestor Ortiz
Regina Hunter

OFC	: WMRP:vg	: WMRP	:	:	:	:	:
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