



UNITED STATES
NUCLEAR REGULATORY COMMISSION
 REGION IV
 611 RYAN PLAZA DRIVE, SUITE 400
 ARLINGTON, TEXAS 76011-8064

August 8, 2000

Mrs. Karla Kubecka
 P.O. Box 583
 Cushing, OK 74023

SUBJECT: PROPERTY SURVEY AND SOIL SAMPLE RESULTS

Dear Mrs. Kubecka:

This letter documents the results of exposure-rate measurements and analysis of soil samples taken at various locations on your property located at Cushing, Oklahoma, on May 25, 2000, by Danny L. Rice, Health Physics Inspector, Nuclear Regulatory Commission, Region IV. The soil sample results are provided in the enclosure to this letter.

The soil samples were sent under seal to the NRC's laboratory in Lisle, Illinois for analysis. The range of total gross alpha (uranium, thorium, and radium) concentration measured in the soil samples was 7.20 picocuries per gram to 7.38 picocuries per gram. The total gross alpha concentration normally found in soil located in and around the Cushing, Oklahoma, area, as determined by the Oklahoma Department of Environmental Quality, is approximately 13 picocuries per gram (Oklahoma Department of Environmental Quality letter dated October 20, 1999, to Mrs. Karla Kubecka, Subject: Kubecka Property Background Sampling 01/26/99). The soil sample analysis results indicated that concentrations of uranium, thorium and radium in the soil on your property were within the normally expected background concentrations.

In addition to the soil samples, exposure-rate readings were taken at each sample location using a Ludlum Model 19 micro-Roentgen meter (NRC #015525, calibrated to Ra-226 on October 12, 1999). The exposure-rate readings ranged from 4 to 8 micro-Roentgen per hour. These exposure-rate readings were within the background readings of 5 to 10 micro-Roentgen per hour taken at several locations along Highway 18 between Stillwater and Cushing, Oklahoma.

If you have any questions concerning the information provided, please contact Mr. Danny L. Rice, CHP, at (817) 860-8151 or Dr. Blair Spitzberg at (817) 860-8191.

Sincerely,

Charles L. Cain

for Dwight D Chamberlain, Director
 Division of Nuclear Materials Safety

Enclosure: Table of Soil Sample Results

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Mrs. Karla Kubecka

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cc w/enclosure:

Mike Broderick, Director
Oklahoma Department of Environmental Quality
Radiation Management Section
707 North Robinson Avenue
Oklahoma City, Oklahoma 73102-6087

Mrs. Karla Kubecka

-3-

bcc w/enclosure to DCD (IE07)

bcc w/enclosure distrib. by RIV:

EWMerschoff

DDChamberlain

LLHowell

DBSpitzberg

LCCarson II

DLRice

SBrown, NMSS/LLDP (T7F27)

FCDB

MIS

RIV Materials File Room (5th floor)

DOCUMENT NAME: Draft: s:\dnms\fcdb\dlr\kubecka 7-18-00-dlr.wpd Final: R:_DNMS\

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ENCLOSURE

Sample Location Kubecka Property (Samples taken May 25, 2000)	Total Uranium (U-234,235,238) pCi/gm	Total Thorium (Th-228,232) pCi/gm	Radium (Ra-226) pCi/gm	Total Gross Alpha pCi/gm
NW Pit 4, 21 steps north of the 5th fence post west (~15 steps) of the Kerr-McGee environmental air sample station.	4.01 ± 1.01	2.53 ± 0.04	0.88 ± 0.03	7.42
NNE RMA-2, north of the northeast corner of the RMA-2 berm, 1 step north of Mrs. Kubecka's fence line.	3.97 ± 1.10	2.41 ± 0.09	0.82 ± 0.05	7.20
NNE RMA-11, North of northeast corner of RMA-11, 2	4.35 ± 1.08	2.27 ± 0.08	0.76 ± 0.05	7.38

Mrs. Karla Kubecka

-3-

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