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FM AMEMBASSY WELLINGTON  
TO SECSTATE WASHDC NIACT IMMEDIATE 8958S E C R E T WELLINGTON 06051

NODIS CHEROKEE

EO 12065: RDS-1 11/14/09 (MARTINDELL, A.C.), OR-M  
TAGS: MNUC, PARM, TGEN, NZ  
SUBJECT: (S) POSSIBLE EVIDENCE OF SOUTHERN HEMISPHERE  
NUCLEAR TEST

REF: STATE 291875

1. SECRET - ENTIRE TEXT.

2. NEW ZEALAND SCIENTISTS BELIEVE THEY HAVE DISCOVERED EVIDENCE THAT A NUCLEAR DEVICE WAS EXPLODED IN THE SOUTHERN HEMISPHERE IN THE PAST THREE MONTHS. TESTING BY THE GNZIS INSTITUTE OF NUCLEAR SCIENCES OF A RAIN-WATER SAMPLE TAKEN DURING THE PERIOD AUG 1-OCT 28 APPEARS TO INDICATE THE PRESENCE OF BARIUM AND OTHER SHORT-LIVED RADIONUCLIDES ASSOCIATED WITH WEAPONS TESTING. ACCORDING TO THE INSTITUTE'S DIRECTOR, DR. BERNARD J. O'BRIEN, THE MEASUREMENTS DO NOT TELL ANYTHING ABOUT THE SOURCE OF THE RADIOACTIVITY EXCEPT THAT IT IS VERY RARE FOR SUCH ACTIVITY TO BE DETECTED IN NEW ZEALAND AS A RESULT OF NUCLEAR WEAPONS TESTS IN THE NORTHERN HEMISPHERE.

3. DR. OOBRIEN IS NOT ABLE TO POSITIVELY RULE OUT  
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LEAKAGE FROM THE RECENT FRENCH UNDERGROUND TEST AT MURUROA NOR CONTAMINATION OF THE SAMPLE AS SOURCES OF THE RADIOACTIVITY DETECTED BY THE INSTITUTE. HE, HOWEVER, DOUBTS THAT NATURAL RADIOACTIVE CONTAMINATION IS THE SOURCE. AS FOR LEAKAGE FROM THE MURUROA TEST, O'BRIEN ONLY SAYS THAT MUCH DEPENDS ON WHEN THAT TEST TOOK PLACE IN COMPARISON TO THE TIME PERIOD IN WHICH THE RADIONUCLIDES WERE PRODUCED.

4. O'BRIEN HOPES THAT WITHIN THE NEXT THREE WEEKS THE INSTITUTE WILL BE ABLE TO ISOLATE TO A TIME FRAME OF ABOUT TWO WEEKS THE PERIOD DURING WHICH THE RADIONUCLIDES ORIGINATED. THE INSTITUTE IS ATTEMPTING TO MEASURE THE RADIOACTIVITY BY DIFFERENT TECHNIQUES AND WILL HAVE TO AWAIT THE DECAY OF THE RADIONUCLIDES. O'BRIEN CAUTIONS THAT THE RADIOACTIVITY SO FAR MEASURED IS EXTREMELY SMALL, ONLY ABOUT TWICE NORMAL BACKGROUND RADIATION AND JUST ABOVE THE INSTITUTE'S DETECTION LIMITS. HE ADDS THAT THE RADIOACTIVITY IS ALSO ONLY ABOUT ONE PERCENT OF WHAT HIS LABORATORY WOULD NORMALLY DETECT AFTER A NUCLEAR EXPLOSION, CONSEQUENTLY IT WILL BE NECESSARY TO DO EVERY POSSIBLE TEST TO CONFIRM THE PRESENCE OF THE RADIOACTIVITY. THE INSTITUTE IS PRESENTLY DOING A BETA COUNT ON THE RADIONUCLIDES/BARIUM, NEODYMIUM, AND PRASEDYMIUM.

5. THE ONLY SAMPLE SO FAR TESTED WAS TAKEN FROM A 3' X 3' WIDE AREA COLLECTOR AT THE INSTITUTE'S GRACEFIELD LABORATORY NEAR WELLINGTON. ONE OTHER RAINWATER SAMPLE, COLLECTED FOR ANOTHER PURPOSE, IS AVAILABLE. THE INSTITUTE WILL BE STUDYING THAT SAMPLE AS WELL, BUT THERE IS SOME QUESTION ABOUT THE TIME PERIOD DURING WHICH COLLECTION WAS UNDER-

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TAKEN.

6. DR. O'BRIEN HAS BEEN CONTACTED BY TELEPHONE FROM WASHINGTON CONCERNING THE POSSIBILITY THAT SOME OF THE INSTITUTE'S PRIMARY SAMPLE BE MADE AVAILABLE TO USG AUTHORITIES FOR INDEPENDENT TESTING. HE HAS AGREED TO LOOK INTO THIS POSSIBILITY. ASKED WHAT THE VOLUME OF THE SAMPLE IS, O'BRIEN REPLIED "QUITE A FEW GALLONS."

7. THE EMBASSY IS CHECKING WITH THE NATIONAL RADIATION LABORATORY (NRL) AT CHRISTCHURCH, THE ONLY OTHER KNOWN NZ COLLECTOR OF DATA ON RADIOACTIVITY. ACCORDING TO DR. O'BRIEN, AS OF LAST WEEK THE NRL HAD NO CORROBORATING EVIDENCE. THE NRL, HOWEVER, HAS COLLECTION SITES FOR RAINWATER AND AIR SAMPLES AT A NUMBER OF POINTS IN NZ AND IN THE PACIFIC ISLAND STATES. WE, THEREFORE, WILL CONTINUE TO PURSUE THE POSSIBILITY THAT THE NRL MAY BE ABLE TO DEVELOP EVIDENCE TO CONFIRM THE TENTATIVE FINDINGS OF THE INSTITUTE.  
MARTINDELL

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