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28 FEBRUARY 2000

TO: WENDY R. DIXON, EIS PROJECT MANAGER
YUCCA MOUNTAIN SITE CHARACTERIZATION OFFICE
U.S. DEPARTMENT OF ENERGY - OCRWM

RECEIVED
MAR 01 2000

RE: SHIPPING CASKS ... ARE NOT REALLY SAFE.

HERE ARE SOME OF MY CONCERNS REGARDING THE DEPARTMENT OF ENERGY PROPOSAL TO SHIP NEUCLAR WASTE TO YUCCA MOUNTAIN.

THE PACKAGE IS A 25 TON CASK FOR TRUCKS, WHICH CARRY ONE SPENT FUEL ASSY AND 100 TONS FOR TRAIN; WHERE UP TO 20 SPENT FUEL ASSYS ARE TRANSPORTED AT ONE TIME. THE CASKS CONSISTS OF AN INTERIOR CAVITY WITH A STORAGE RACK. THE IRRADIATED (SPENT) RODS ARE INSERTED INTO THE RACK UNDER WATER AT THE REACTOR. THE CASK COOLANT IS EITHER, WATER, HELIUM OR AIR. THIS INTERIOR CAVITY IS SURRONDED BY A SERIES OF SHELLS THAT ARE STAINLESS STEEL, LEAD, AND MORE STAINLESS STEEL. IF THE INNER COOLANT IS HELIUM OR AIR, THERE IS AN OUTSIDE POCKET OF WATER TO ABSORB NEUTRONS. IF THE INNER COOLANT IS WATER, THE WATER SIMULTANEOUSLY SERVES AS A NEUTRON SHIELD. IT IS THE 4 INCHES OF LEAD, NECESSARY TO SHIELD THE INTENSE GAMMA RADIATION, THAT MAKES THE CASK SO HEAVY.

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1 MANY OF THE SAFETY TESTS ON THE "PACKAGED FOR SHIPMENT" CASKS ARE FLAWED.... THE NRC REGULATIONS REQUIRE CASKS TO BE ABLE TO WITHSTAND A FIRE OF 1,475°F FOR 1/2 HOUR, SEEMS IMPRESSIVE, BUT IT IS INADEQUATE FOR HIGHWAY AND RAIL CONDITIONS.... MANY HAZARDOUS CARGO'S, AS A RESULT OF AN ACCIDENT, BURN @ TEMPERATURES IN EXCESS OF 1495°F AND FOR LONGER THAN 1/2 HR!.... DIESEL FUEL BURNS HOTTER, AS DOES PROPANE @ 4000°F, BUTANE @ 1875°F IN FACT, THE AVERAGE TEMPERATURE OF A HIGHWAY ACCIDENT FIRE IS 1850°F (WITH A RANGE BETWEEN 1400°F & 2400°F) IN ADDITION, I AM CONCERNED ABOUT THE INTEGRITY OF THE PRESSURE RELIEF VALVES IN CASE OF FIRE. I ALSO UNDERSTAND THAT THE TRUCKS WILL BE CARRYING EXTRA FUEL TO AVOID FUEL STOPS OR STOPOVERS. IN THE CASE OF RAIL SHIPMENTS, RAIL BED INTEGRITY ON BRIDGES OR TRESTLES OVER RIVERS SEEM PARTICULARLY VUNLERABLE. EITHER FROM TERRORISTS OR IMPROPER MAINTANINCE.

2 WE WOULD URGE YOU TO DELAY THESE SHIPMENTS AND MAKE DIFFERENT PLANS FOR STORAGE OF THIS TOXIC WASTE. WE BELIEVE IT SHOULD REMAIN WHERE IT WAS PRODUCED, WITH THE LONG TERM RESPONSIBILITY IN THE HANDS OF THOSE WHO MUST SHOULDER THE DISPOSAL ON SITE.

SINCERELY

Jerry McNeal 6671 Kingsbury St Louis Mo 63130

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