October 4, 2007

Dear distinguished members of the Utah Radiation Control Board:

I am deeply concerned that the Community Environmental Monitoring Program (CEMP) fails to meet the basic objectives of an environmental monitoring network and therefore endangers public health in Utah.

Arguably the single most important objective of an environmental monitoring network that serves, in part, the purpose of providing radiological monitoring during an emergency situation is to rapidly compile information on the magnitude and location of the possible hazards to the public. The main purpose for compiling such information is to define the type and extent of any necessary countermeasures or other emergency procedures. The circumstances in July 2007 concerning the Milford (Utah) CEMP station, which I discuss below, illustrate the fact that the CEMP network fails to meet this objective. Because of a lack of monitoring stations in Utah, it was impossible for federal officials to provide sufficient information to help determine a real extent and point of source of the suspected radiological hazard indicated by the Milford CEMP station data.

I feel that the consideration of the addition of new monitoring stations in Utah should address two major concerns. First, I believe that the corridor surrounding the Nevada Test Site should be spaced at no more than 25 miles between monitoring stations. The Milford station was added during the era of underground testing (in 1988) to fill a hole downwind from the NTS in the north-south 'corridor' between Cedar City and Delta. The installation of the Milford station only, poorly, filled the huge gap by leaving gaps more than 50 miles wide on each side. Second, CEMP needs to be expanded into more environmental pathways in Utah to address the danger of radiological exposure to the public from the resuspension of manmade radioactivity by wildfires, the rate of occurrence of which will be worsened by the effects of global warming. In the downwind direction of the smoke from the Milford Flat fire, which mostly moved east, the closest radiation monitors were in Colorado or New Mexico.

Another key objective of an environmental monitoring network is to identify the physical and chemical properties of a radiation hazard in order to plan and implement countermeasures for safeguarding the public health. The CEMP network, operated by the DOE, has inferior radiation monitoring equipment when compared to the DOE's NewNET network in New Mexico, which employs monitors used to measure alpha and beta (in addition to gamma) radioactivity. This fact leads one to the conclusion that the DOE has placed a higher priority on the health of citizens of New Mexico than citizens

living downwind of the Nevada Test Site. More sophisticated equipment is needed in the CEMP network to meet this objective.

For both the above reasons, I am concerned that the existing CEMP network does not provide the data needed to adequately assess the magnitude, source and specific radiological hazard from potential radiological hazards. As such, in the event of an accidental release from the NTS or another type of radiological accident, the state emergency management systems within California, Nevada and Utah would not be optimally informed to assess the type and extent of countermeasures or emergency procedures needed. Therefore, I request that the Board complete a formal review of the CEMP to address the inadequacies and take into consideration my recommendations.

My recommendation is that the Board commission a full analysis to address the following: (a) determine if the existing CEMP stations are located in environmental pathways of maximum predicted ground level concentrations where radionuclides might be released, (b) assess the ability of the CEMP operators to adequately respond to all foreseeable accidents, including tornados and the increasing incidence of forest fires, (c) determine if the emergency countermeasures outlined in the Routine Radiological Environmental Monitoring Plan are appropriate, (d) determine if the DOE's 1998 decision to reduce sampling for contamination including down gradient wells and sampling of milk and human foodstuffs was warranted, (e) determine if the CEMP network is compliant with applicable regulatory and environmental standards, (f) determine if there is the need for more advanced radiological monitoring equipment for CEMP stations, and (g) evaluate the feasibility of implementing new monitoring stations. Also, I recommend that the EPA complete a comprehensive soil sampling study, involving at least two sets of sampling for each Utah county, in order to establish a data record of background radiation levels in Utah. The purpose of the sampling would be to identify the specific radionuclides and their quantities in the sampled soils. This data record could be indispensable for providing additional verification in the event of an accidental radiological release or a lofting, radiological release that could result in public exposure.

More important than all of my recommendations above, I feel that it is imperative that the monitoring function be placed back into the hands of a governmental body other than the DOE or its contractors. In 1998, the DOE decided to effectively end the independent oversight of radiological monitoring of the Nevada Test Site and its environs (that the Environmental Protection Agency (EPA) had provided for the preceding thirty years) and, in addition, make drastic reductions to onsite (Nevada Test Site) and offsite radiological monitoring. The DOE's decision to reduce the scope and frequency of monitoring and sampling was made completely without the input or consent of the general public. Perhaps the most compelling reason why the DOE or its contractors cannot be charged with the role of protecting the public against the harmful effects of radiation on or near its Sites is because the DOE and its predecessor agencies have dramatically violated the public trust in the past. The DOE and its predecessors should have never been given the twin responsibilities of weapons development and

safeguarding public health. The aims of these two responsibilities contradict one another and have caused harm to the public.

Fully aware of the low degree of trust that the public places in its statements (regarding radiation), the DOE has utilized a tactic of using intermediaries – or middlemen – to deliver its messages to the public. The DOE hopes that the public will accept its assurances of safety from its information intermediaries, namely the Desert Research Institute (DRI), an educational institution in Nevada that is under contract to oversee the monitoring program. The public should not be fooled by the tradeoff that was made on their behalf and, moreover, at their expense. Without independent oversight or checks and balances, the primary interests of the DOE and its contractors will continue to result in deception and cover-up when faced with an embarrassing gaff or, worse, an unintended release that would damage the public image of the DOE and its contractors.

This ability of the DOE and DRI to easily manipulate information to suit their own agenda is evidenced with the recent radiation incident involving the Milford CEMP station. When the CEMP station in Milford, Utah, began registering gamma spikes over 40 times background levels of radiation on July 5, 2007, the potential threat to people living in that area of Utah was not accurately and timely portrayed by the DOE or DRI. It wasn't until July 12, seven days after the spikes began, that the DOE's NNSA issued a press release alerting the public of a possible radiological problem. In their press release, the NNSA stated that the 'highest reading' recorded at the Milford station since July 5 was 'almost 140 microRem per hour.' The Spectrum newspaper, in their article dated July 17, stated that the highest reading was not 140 microRem per hour, but 870 microRem per hour. The bizarre response by Kevin Rohrer, NNSA spokesperson, given to The Spectrum was that both numbers were 'accurate.' The Spectrum was the first to tell the public that the data used by the DOE to determine their highest gamma reading was averaged over a ten-minute period to reflect, in Mr. Rohrer's words, 'a more practical rate of exposure.' This piece of information was not revealed to the public in the NNSA's press release nor on the CEMP website. This detail, which applies to all data reported within the CEMP network, is poorly advertised on the website of DRI.

The DOE and DRI also misrepresented the interests of the general public by failing to put forward a broad range of possibilities behind the gamma spikes. The DOE's theory that the spikes were caused by radon gas being released by the Milford Flat fire, along with the claim that the radiation posed no threat to the public health, was improbable and unsubstantiated. The DOE's theory had no more merit than an alternative theory suggesting that Cold War fallout was being resuspended by wildfires in the area. Another detail glossed over by the DOE was the fact that the gamma spikes began on July 5th, whereas the Milford Flat fire didn't begin until the afternoon of July 6th.

Currently, there has been no attempt beyond the alpha/beta and gamma analysis of the Milford CEMP station air filters to investigate the cause of the abnormal radiation readings. On the CEMP website is a statement that the PIC was replaced on July 14, without any further statements indicating that this action cured the cause of the high-level readings, or the graphing display limit problem. What caused the elevated gamma

readings in Milford is a question the public deserves an answer to. Yet, in an apparent attempt to sweep the issue under the rug, in the first week of August, DRI deleted large chunks of gamma data from the CEMP website from the week of July 5 through July 12. The data then reappeared on August 8th without explanation. As part of its educational mission, DRI should have been completely open and frank in regards to the likely failures of its instrumentation and the steps taken to determine the causes, so that corrective actions could be universally available. Its close association with the DOE may have compromised such openness.

It may be of interest to the Board to note that in February 1999 the Milford station measured elevated gamma readings over several days resulting in a maximum gamma reading of 3,978 microRem/hour. According to records kept by NewNET, EPA personnel apparently tried to confirm the gamma levels, but could not and decided to shut down the PIC and replaced it about 2 weeks later. The gamma spikes were explained away as 'data errors.'

It appears that the DOE and DRI are reluctant and embarrassed to admit that an equipment malfunction may have occurred during July 2007 in the Milford (Utah) CEMP station. Evidence, suggested by the data available to the public via the internet, suggests that the station's gamma radiation detection pressurized ion chamber (PIC) processing electronics produced erroneous signals which, after transmission to DRI and display on graphs, seriously misrepresented the radiological situation at the site. The displayed readings of gamma radiation levels from July 5th to July 14th show some form of amplitude limiting of data since gamma levels above 868 microRem/hour were not shown. Had the Milford CEMP station been exposed to a gamma radiation level above 868 microRem/hr due to an accidental release from the Nevada Test Site, the public would have been left unaware of levels of exposure above that limit.

By putting the direct administration of onsite and offsite monitoring back into the hands of the EPA, the public would reap the benefits it deserves as taxpayers. The EPA would be required to provide the public with an assortment of interface opportunities and various appeals processes, and checks and balances that the DOE and DRI can not provide to the public. When the DOE removed the EPA from direct administration of CEMP in 1998, the DOE effectively stripped away the right of ordinary citizens to a system of checks and balances, which forms the foundation of democracy and is a feature of nearly every part of our elected government.

As I stated in my introduction, I feel that the CEMP network does not meet minimum requirements to ensure the protection of public health from radiological emergencies. In September 1998, Jed Harrison of the EPA concluded in his main comments of a letter that criticized the Department of Energy's Routine Radiological Environmental Monitoring Plan, '…we believe the loss of confidence that would occur if the public is exposed without adequate measurements is not worth the incremental cost savings afforded by the severe reductions.' I believe it is morally wrong to wait until the public is confronted with faulty instrumentation readings, or a real radiological exposure event that was not properly monitored because of the DOE's past interest in incremental cost savings. I believe that in the event of a radiological accident, the DOE or DRI will not

act, speak and decide in the best interests of the public. For all of these reasons, in the best interests of safety and security of citizens of the Beehive State, I hope that the Board will honor my request to launch a formal review into the Community Environmental Monitoring Program.

Sincerely,

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