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OFFICE OF SECRETARY
RULEMAKINGS AND
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Secretary,
US Nuclear Regulatory Commission,
Washington DC 20555

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Attention : Rulemaking and Adjudications Staff.

June 19th, 2003

Re: Control of the Disposition of Solids, AKA Orwellian DoubleSpeak for re-using or dumping radioactive waste hither and yon for eternity, AKA Below Regulatory Concern, AKA "ERROR", AKA radioactive recycling, stupid, AKA de-regulating nuclear waste.

How many more times in my life am I going to have to waste valuable time responding to NRC regurgitating their ghastly proposals to re-use, recycle into consumer goods, or dump to landfills radioactively contaminated materials? What part of the word "NO" does the NRC not understand? What part of the word "malfeasance" does NRC not understand?

The NRC has never maintained safety. To cite one example, it allows reactors with cracked core shrouds essentially held together with baling wire like a 1930's pick-up to continue to operate, such as Plant Hatch in Georgia.

The NRC has never protected the environment. Nuclear reactors/power plants are allowed to release radioactive contaminants in myriad ways into the environment on a constant basis, based on levels they devised for their rules - i.e. if you violate NRC's Rules and Regulations your company may get a tickle on the hand (not even a slap on the hand) - these Rules and Regulations, often based in IAEA and its pro-nuclear agenda standards, or on ICRP's self serving, industry loving recommendations, which historically include "allowable" doses to sperm and ovum, despite the fact that, for seven decades, it has been known that radiation exposure causes genetic damage/mutations to all life forms. Downstream from nuclear plants, sediment, crustaceans, fish are radioactively contaminated for miles, as well as frequently deformed, - birds feeding on contaminated seeds growing around nuclear facilities and waterfowl also, who swim in holding ponds and eat contaminated foods/seeds, become radioactive and drop radioactive excreta wherever they fly. (The boys at the Death of the Earth squad/DOE can enlighten you, they don't care about the environment either.) Any further releases to the environment will make the situation worse. ANY so-called "conditional" use (road fill, which will dump contaminated runoff into every creek and backyard when it rains - or sewer lines, where contaminant buildup not only affects sewer workers, but sludge at treatment plants which is either incinerated so the contaminated crap goes out the stack in air, or gets spread on land as fertilizer, to radioactively contaminate crops and groundwater, - something EPA could care less about - or bridge abutments, which will of course weaken the bridge due to the effect of radiation on cement and steel and other metals, namely degradation and embrittlement) is not only environmentally ruinous but dangerous to life and limb and is to be condemned and forbidden. Putting radioactive waste through uranium mills is appalling. As are things the NRC /DOE is about to allow, such as the disposal of 470,000 TONS OF RADIOACTIVE DIRT ON TOP OF \$ MILLION TONS OF RADIOACTIVE WASTE IN THE COTTER CORPORATION HOLDING POND AT ITS URANIUM MILL IN CANON CITY, COLORADO * DIRT FROM MAYWOOD, N.J., (See Sunday, Dec. 1st 2002 Sunday Denver post articles "Uranium Mill remains hot issue" and "Cotter's woes began with sick cows in '70s" by Joey Bunch .) What happened at the Cotter site is an example of what happens when radioactive contaminants - from whatever route or source- seep/get into soil and groundwater, namely the ruining of the environment and human lives, as Cotters contamination wound up polluting drinking wells and gardens of the community of Lincoln Park- a community now listed as a federal SUPERFUND SITE. This should be a warning. All landfills -lined or unlined- eventually leak, upto 600 feet down and one and one-half miles downgradient from the site or more, in relatively short order.

EPA's much touted regulations concerning landfills mean little in the real world - the massive hazardous waste landfill of Chemical Waste Management at Emelle, Alabama

touted by all and sundry to last 10,000 years without a leak, couldn't make it through a decade - waste from 46 states and seven foreign countries if I remember correctly - thank you EPA regulators. One thing even the NRC should grasp, is that one cannot put radioactive waste/material in an area of high rainfall or wet conditions. (One of the reasons Yucca Mountain was chosen by DOE for a nuclear waste dump, despite its many drawbacks, was climate - besides, they had screwed the Native Americans anyhow and contaminated the entire area and the groundwater from nuclear weapons testing to great depths - to be precise, more than 300 MILLION CURIES, yes, three hundred million curies contaminate underground testing areas alone and that is a DOE estimate - so they probably thought that since they were on a "contamination roll" as it were, why stop?..) The climate issue narrows down where it can be contained, and isolated from human/animal/insect/plant life essentially forever, considerably if considering a radioactive waste disposal site - one of NRC's "Alternatives".

Here is something to put out for consideration ONLY regarding the radioactive waste disposal site . The Death of the Earth squad, the DOE, has created huge shallow land burial sites on the Nevada Nuclear Test Site/ AKA Western Shoshone treaty Land . Obviously these areas are so contaminated little can be done about them, HOWEVER, as shallow land burial is about the worst thing possible, perhaps the DOE could be persuaded to dig up the contaminated mess they have created and re-containerize it to be placed inside an above ground repository of massive proportion , complete with sand filters to help trap any particulates, like plutonium, over ventilation/shafts (in case of fire or other release) as well as HEPA systems, a repository which also would take all the waste NRC is currently talking about. This repository would have to be monitored and repaired , in perpetuity, with only highly trained personnel with the best protective gear involved. It goes without saying almost, that it could only be considered if it went together with a cessation of all activities nationwide which generate radioactive waste, within two years, of the type under consideration in this rulemaking, in particular. Sites this waste would have come from in terms of "decommissioning" could NEVER be returned for unrestricted use either, as even with "cleanup" they remain contaminated and should remain isolated/fenced from access forever and conditions written into land deeds. The DOE (i.e. the taxpayer) would obviously get stuck with some of the money, just as they are at present with DOE burying waste at the test site, and current and past generators can pay for the remaining bulk portion, with NO cost recovery. States wherein the waste was generated could also pay a yearly tax recovered from their populace, commensurate with the CURIE quantity of waste generated in their state, into a fund for long term upkeep, but no less than a minimum of \$2 Million a year, for ten years, and a quarter of a million in perpetuity thereafter. A small price to pay for the legacy of stupidity and horror. The DOE intends to dump 7,700,000 cubic feet of low level waste in shallow land burial over the next decades at the site, the groundwater contamination from these sites will be horrible. Some of the waste is mixed radioactive and chemical waste. It would perhaps make sense for DOE and NRC to team up and create an NRC /EPA joint licensed radioactive and mixed waste "low level " (a misnomer if there ever was one) disposal aboveground site, complete with leachate collection and containerization/reburial systems, which is obviously totally enclosed. The Egyptians left great cultural pyramids, our contribution from the nuclear age is equivalent to a Death Pyramid. The usual transport nightmares would go with it of course.

In setting any criteria for radiation doses for such a facility, to public, workers, wildlife etc - indeed in setting any future "allowable" (but not safe) doses, the NRC should take into consideration and use, the Report of the European Committee on Radiation Risk the "2003 Recommendations of the European Committee on Radiation Risk" done at the behest of the European Parliaments Scientific and Technological Options Assessment Unit. Particularly noteworthy being the findings that ICRP Models do NOT differentiate enough between radiation delivered internally and externally, as well as things like ICRP's awful use of "averaging".

In all cases, the NRC must finally consider -decades after the facts were known- the genetic damage/component of radiation exposure, and therefore lower so-called "allowable"

* FOR ANY REPOSITORY

doses to the reproductive organs completely. Consider this, from "The Effects of Nuclear Weapons", Samuel Glasstone, Editor, Revised Edition (1962) Prepared by the United States Department of Defense, Published by the United States Atomic Energy Commission (NRC and DOE's forerunner) :

"Geneticists are of the general opinion that even the smallest amount of radiation will cause some increase in the normal mutation frequency, in other words, there is no threshold for genetic mutations resulting from exposure to nuclear (or ionizing) radiations, However, a large dose of radiation does not mean that the resulting mutations will be more harmful than for a smaller dose. With a large dose the mutations would be of the same general type as for a small dose, or as those which occur spontaneously, but there would be more of them in proportion to the dose."

Yes, they knew, and by extension, so does DOE and NRC and EPA. Isn't it time to act to stop the damage ?

Furthermore, effects of all daughter products - the entire decay chains- must be taken into account.

Release of radioactive waste into unrestricted commerce by any route, or using any ruse, or license amendment, or even by blatant lie - such as saying there is an acceptable dose criterion, is not acceptable - for this reason the waste must be isolated from all life as far as humanly possible. There can be no Conditional Use or Restricted Releases of contaminated materials - once released by any route, the end result is that someone or something will become contaminated.

I find it particularly odious, that NRC seems to have even removed the word "radioactive" from the title of the rulemaking. Tell the truth for a change, put the "R" word back in the title. That sort of deception does not increase public confidence.

Regulations have always been pretty pathetic or downright appalling, with opportunities for exemptions and circumventions at every turn. We are talking about the most dangerous, filthiest, deadliest industry in the world when speaking of the nuclear fuel cycle and nuclear reactors etc., there is a need for more regulation, more inspections, the hiring of actual doctors who specialize in the true health effects of radiation and pediatric toxicologists who specialize in the effects of radiation - not physicists or engineers who regurgitate archaic formulas the ICRP or some similar body thought up to protect industry and the weapons makers backsides.

If nuclear waste generators don't like the regulations, perhaps they should go into a life supporting line of work instead. Reducing their regulatory burden is not what NRC is meant to be doing, NRC is meant to be protecting the public health.

In any regulation promulgated, NRC should also be obliged to tell the public that it has only one doctor on staff and is not medically oriented in the least. Health of the public is therefore a bit of a sham to put it mildly. If it actually understood health and environmental effects, it would not even think of allowing radioactive waste to be released into commerce, let alone be doing it as it does. If NRC understood how the environment works, they would not even think of allowing radwaste to be dumped to landfills or sewers or creeks. Or is it that NRC understands and doesn't care ?

The answer to this latest bit of deceptive manoeuvring by NRC and the nuclear club, is the same as it always was : NO radioactive recycling, NO deregulation of radioactive waste/byproducts/residues or anything by any other name, NO to "restricted" or "conditional uses", any releases to the public/open marketplace currently in existence should be banned/revoked, import/export of uranium hexafluoride should be banned.

(Export of Depleted Uranium in any form should be banned.) There should be repeated follow up of any radioactively contaminated materials released so far to find out where it went and what has been contaminated, and every effort made to recapture it. There should always be follow up of all radioactive materials to establish what has actually happened to them - for example, some of the vast amounts of slag being exported, listed as natural uranium and thorium in slag as "steelmaking additive",

exported by the hundreds of thousands of pounds, (kilos actually) could a) not be being used as an additive but for extraction of uranium and thorium....b) would be making the steel radioactive if used as an additive. If that sort of export is considered a "solid" - which it obviously is, as it's slag and its radioactive, it must be stopped. The runoff from such slag is also radioactive. What I am trying to get NRC to grasp, is that NOTHING produced, created or in any way associated with the nuclear fuel cycle does not have the power to maim, kill, deform or in some way affect all life and the gene pool adversely. Therefore, the only answer is to try and isolate it from the biosphere - from all living things- essentially forever. Hence my point for consideration of a nuclear waste disposal/containment site for the type of materials this so-called "controlling the disposition of solid materials" covers, solid material contaminated with everything from plutonium-239 to cobalt-60 or any other radioactive contaminant from nuclear facilities etc. at so called low levels, as described herein. No waste from abroad would be allowed.

In closing, I do not intend to make further comments on this issue, having made the comments repeatedly over the years. I expect these comments to be made part of any final record on this issue. Great evil and wickedness had resulted from the splitting of the atom, a legacy of death and environmental ruin. A legacy of birth defects, leukemia, cancers, promotion of tumors, spontaneous abortion, fetal and embryonic death, heart disease, -damage to the global gene pool - and among many other horrors, countless pseudo-scientists who have tortured every living thing virtually to see how, when and if radiation kills and how long it takes, and these pseudo-scientists are still at it to this day, with government funding or other funding, and they note all the horror they cause in little notebooks and then they publish research papers, and they argue back and forth which level causes what, and at which stage, using this sort of wording: "The sensitivity of the mammary gland to the carcinogenic effects of ionizing radiation was first demonstrated in x-irradiated mice in 1936 and has since been described in other species of laboratory animal, including guinea pigs, dogs, and rats. An increase in the incidence of breast cancer in irradiated humans was first recognized in 1965 in women who received repeated fluoroscopic examinations, and subsequently in Japanese atomic bomb survivors in 1968. During recent decades, mammary cancer has been studied extensively in irradiated animals and in several large series of irradiated women." Or, "there is a wealth of experimental data on the induction of ovarian tumors in mice by ionizing radiation." (both from the BEIR V Report) Experiments on animals would make the Nazis proud - research papers show total disregard for suffering, just as scientists who were part of the research on Hiroshima survivors showed a total disregard for the feelings of the survivors until a research paper was written about how the survivors were being handled, exposed it all (See Robert Jungk, "Strahlen Aus der Asche", Rowohlt publishers, 1964). The illness and suffering around federal nuclear facilities and commercial power plants is down played, explained away using torturous convoluted explanations by officials - or just blatant lies. Agency after agency knows about contamination of people, foodstuffs, water, yet does nothing to protest it- when asked why, the usual answer is they can't afford to lose their job. Others are just ignorant of the dangers. The most troubling part is the attempt to play down the dangers of radiation by those who should know better. Thousands of uranium miners, from the Native Americans of predominantly Navajo descent, to Africans in Niger, to Russians of the former Soviet Far East (uranium mining is known to be the equivalent of the death sentence, therefore, under Stalin in particular, dissidents and anyone his regime didn't like, got sentenced to uranium mines, where their mountains of shoes, rotting remnants next to disused camps for miners bear witness) and others have died as a result of uranium mining, there are millions of American children who got serious exposures to radioactive iodine in particular, as the clouds from atomic tests at the

Nevada Nuclear Test Site wafted across the country (the medical effects and the fact not mentioned by the National Cancer Institute for 17 years while they "studied" the data), just as today millions are being exposed to the radioactive fallout from nuclear power plants constantly emitting noble gases which decay among other things to strontium-90 and cesium-137. The reason atmospheric testing/above ground testing was banned, was due to the strontium-90 in particular displacing calcium in children's bones to give them cancers later (of course adults were affected too), yet people act as if it's some sort of different strontium-90 from nuclear plants than from tests. Maybe because the general public has not grasped the fact that they have essentially the equivalent of a nuclear bomb with a slow fuse in their backyard, in which one of the few differences is that the atom is split under "controlled" circumstances, to make a long story short. But NRC knows this. Radioactive iodine from nuclear plants is measured at area local dairies - NRC wouldn't want your children to get more than the dose NRC allows at one time, NRC just lets it get a steady diet of it, and in later years the populace can't figure out why they have thyroid problems, some causing obesity, thyroid nodules or cancer.

There are so many awful consequences of radiation exposure at any level above the naturally occurring background PRIOR TO THE ATOMIC AGE, and even "natural levels" cause health effects, but we can't do anything about those. The man-made results of the atomic age are what this waste has been contaminated with. Think of the blood damage and bleeding from cobalt-60. Think of the fact that the additional carbon-14 the nuclear age has added, and that not only must one take into account the beta particles emitted during decay, but to quote the military and the AEC again: "An additional genetic effect can result from the detrimental biochemical consequences of the replacement of all the carbon-14 incorporated into genetic material by its decay product nitrogen-14." Carbon-14 of course has a radioactive half-life of 5,760 years in the environment. Biologically, it is a whole body irradiator when ingested. How are people going to ingest extra carbon-14 over and above that carbon-14 from nuclear tests already in the environment etc. ? If NRC goes ahead with the radioactive recycling and some toddler eats its pudding off a recycled spoon that a microscopic particle flakes off - that's how.

If NRC still doesn't grasp why there has been two decades of outrage against the industry's dream of getting radioactive waste deregulated, let me take NRC back again, forty years, and quote the military/AEC definition of ionizing radiation:

"Electromagnetic radiation (gamma rays or X-rays) or particulate radiation (Alpha particles, beta particles, neutrons etc.) capable of producing ions, i.e. electrically charged particles, directly or indirectly, in its passage through matter."

The "matter" is THE CELL, and all the atoms etc. that goes with a cellular structure, like the body, (once considered unsplitable) which are electrically NEUTRAL, become electrically charged, creating biological havoc in the process, as the ionizing radiation passes through a given area. Take exposure to H₃ - called "tritium" or radioactive hydrogen, to use 52 year old descriptive data "With special detection equipment it can be demonstrated that this kind of hydrogen shoots out negatively charged particles of electricity from its nucleus. These have been identified as electrons, also called beta particles." This sort of thing is why exposure to radiation causes embryonic or fetal death or birth defects or other problems and genetic damage, or changes. ELECTRIC SHOCK OR ELECTROCUTION HAS A TENDENCY TO RUIN ANY LIFE FORM. Electrical energy can be deadly, in particular if something is at a life stage almost invisible to even powerful magnification. There is a reason the Dept. of Energy is called that - it deals with atomic energy, and the NUCLEAR Regulatory Commission does likewise - it regulates the damage to the nucleus, and with the backup of outfits like the ICRP, IAEA, and so on and with NRC and DOE counterparts worldwide, and nuclear industry pushers, all contribute to trashing Creation. I call such actions not only morally and ethically indefensible, not only inimicable

to the health, safety and welfare of the nation and the world, but equivalent to spitting in the face of the Creator, and any nation who wants to join the heinous nuclear club will be doing likewise.

As I said at the beginning of this document, concerning the most recent attempt and now this attempt at re-using, or deregulating or dumping low level radioactive material and waste, what part of the word "NO" does the NRC not understand? What part of the word "malfeasance" does the NRC not understand? And what part of the words I shall now add does NRC not understand, namely "premeditated murder?" Because as usual a calculation exists as to how many will die resulting from proposals. The fact is, once released in any manner, restricted, conditional or otherwise, it becomes part of a cycle that continues forever. Here is one last example: Radioactively contaminated lead shielding, contaminated with plutonium-239, gets smelted, a particle goes out the stack and a child breathes in both the lead and the particle of plutonium, the child dies an early death as a result. The body is cremated. The plutonium-239 goes out the stack again, this time it causes lung cancer in an adult. Adult dies. Body is buried. Eventually the particle seeps to groundwater which becomes surface water. Particle is ingested by a freshwater mussel. Mussel is caught and served as part of a seafood dinner at an expensive restaurant in Washington, and so on ad infinitum. One particle could cause thousands of deaths over the time it takes plutonium-239 to decay. Far more than any estimates.

The only solution is to shut down the entire nuclear fuel cycle to prevent more waste and contamination, and isolate and contain all radioactively contaminated materials etc. associated with it until they have decayed to their natural stable state. One of the few ways to do that MIGHT be the radioactive low-level repository as described herein, which would also help protect Nevada's groundwater that drains from DOE dumped areas in existence, as DOE would have to recontainerize the waste etc. Obviously, all waste that would have to be dug up and recontainerized should be done under cover with proper filtration systems and full protective gear for workers, to avoid airborne recontamination of wider areas.

The problem of the entire nuclear waste issue of every type has long reached crisis proportions. The issue has constantly been shunted off onto the next generation, in part because politicians have not only not educated themselves to the issues (neither has most of the press) they don't want to take on the nuclear industry - it's worse by far than the tobacco or pharmaceutical giants - and the associated military-industrial complex as President Eisenhower termed it. The issue can't wait. With continued inaction coupled with reluctance to shut down the nuclear fuel cycle and nuclear plants, it is purely a matter of time before we experience the mother of all catastrophes somewhere in the world. Whether it's a waste tank at Savannah River Nuclear Site or Hanford blowing, or Chernobyl finally actually melting down, or one of those Russian submarine reactors in "dry dock" blowing, or a criticality occurring in some forgotten "low-level" (a misnomer, as I said) waste dump that never was legal or planned, - one day the waste will hit the proverbial fan. There must be action, NOW.

Finally - NRC has got to take a stand and pass a Rule stating that there will be no further licensing of any nuclear reactors, no new generation of reactors (which are nothing more than regurgitated failed designs anyway) no more license amendments allowing old reactors to keep operating, no more Orwellian DoubleSpeak - and as a first order of business, nuclear power plants are going to be called nuclear waste generating plants, because that's their main purpose - to create plutonium, for weapons of war, in the high level nuclear waste - the spent fuel rods - while they operate.

What? NRC actually thought they were for generating power? BE serious. No one in their right mind splits the atom to boil water to generate steam to drive turbines to create electricity - most of which is lost - that's like using an atomic bomb as a match to light a candle. That's why over forty nations now have nuclear capability - they got themselves a power or research reactor. It's the plutonium.

Gotta have that BOMB.....So, to quote satirist Tom Lehrer: "We will all go together when we go, all suffused with an incandescent glow."

Until, God forbid, that happens, NRC and DOE have to deal with the waste issues - and for the last time "NO DUMPING ALLOWED". In the final analysis each person at NRC and DOE bears the responsibility of the consequences of the decisions on these issues. What you do will affect generations. Should the thought of putting the waste in an aboveground repository, along with DOE "cleaned up" waste on the severely contaminated areas of the Nevada Nuclear Test Site be considered an option, it is of vital importance that NRC/DOE meet with the Elders of the Western Shoshone Nation, whose Treaty of Ruby Valley was broken and their homeland used for a nuclear test site, and first of all beg forgiveness, second, explain the extent of the contamination and that it will never be fit for any habitation throughout eternity - something not really explained in full to them to my knowledge - third, explain it would improve groundwater under the area which might flow offsite in future. Don't insult them further by offering compensation- there are some things that can't be compensated, the area is still their land and they have turned down the government of the US and its millions for decades. Beg forgiveness and mean it. An offsite museum chronicling the genocide perpetrated against the Western Shoshone Nation and the nuclear testing on their land could be erected for future generations to understand the sin, and for the Western Shoshone to have the respect and contrition of those who wronged them, namely the DOE and the NRC, when called the Atomic Energy Commission in particular. What has been done to the Shoshone is criminal.

My "stream of consciousness" has come to an end. I have nothing more to say having testified to the NRC repeatedly on this very issue. Bear in mind that one day, all of us are accountable to God.

Pamela Blockey-O'Brien.

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