Acceptable Risks Values Your Decision-Making NRC Regulatory Hearings Your Stewardship of Wisdom!

The licensing of industrial factories to handle nuclear energy materials, both atomic fissile fuel materials, and their radioactive ionizing wastes is a process now of ratios of cost/benefit analysis, according to the promoters and the regulators. The whole communication problem of nuclear technology is now a kind of jargon, or rhetoric, or clout. As an outsider I now see that public safety has been shifted as a libility to the taxpayer via the federal government and each state government. US NRC Docket No. 70-2909

WESTINGHOUSE NUCLEAR FUEL PLANT

The Westinghouse Electric Corporation of Pittsburgh is now in the process getting a license from the Nuclear Regulatory Commission (NRC) to build and to operate a Nuclear Fuel Plant in Alabama in the Prattville-Montgomery area.

The purpose of this is to try to relate to responsible citizens (espscially of Alabama) some of the communications and hearing problems in handling rather than being handled in this kind of decision-making. I do not believe that knowledgeable citizens of Alabama can afford to allow Westinghouse to orchestrate the legislature and the special interests into State licensing of this nuclear fuel plant without proper safe guards. I believe the people of Alabama will turn down this proposed plant if given a chance after they are informed about nuclear fuel plants.

R E G U L A T O R Y R H E T O R I C

There is much rhetoric that I do not comprehend like that from experienced nuclear fuel engineers and attorneys, from both the NRC as well as Westinghouse, but with Westinghouse being more dominant. Even my years as a professional career ecologist for the federal government has not trained me for the ritualized rhetoric of the experienced nuclear fuel engineers and attorneys of both the Westinghouse Electric Corporation (WEC) and the NRC. As a trained ecologist I am experiencing frustration trying to help the Safe Energy Alliance of Central Alabama (SEACA). My services are free. SEACA's attorney, who is a good lawyer, but untrained in science and technology frequently changes my advice, perhaps unknowingly, as he only can officially draw up the official contentions and speak during NRC hearings. Therefore please do not be unhappily surprised in this my presentation of SEACA's position because I "have" to be shaped by the regulatory codes and jargon.

SEACA's NO CONTENTIONS

There are unknowns:—(1) there are inspectable and uninspectable portions of the proposed WEC facility. (2) We do not know anything about their new "Dry" chemical process and the kiln (furnace) in which it will take place. WEC says these are now proprietary (or secret). Will its walls be able to withstand fluorine corrosive fires, and hydrogen explosions? Will toxic heavy metals from its construction pollute the Alabama River? (3) Will the hazardous materials meet the EPA and the Resource, Conservation and Recovery ACT, which became implemented on Nov. 19, 1980? Or will the NRC and the WEC be exempted? (4) When will the state of Alabama take a position on all of the liabilities proposed for the State by the WEC fuel plant? (5) The defination of low-level radwastes by WEC is absurd. WEC states "that radioactive materials greater than 3.6 X 10^{-4} microcuries per gram" are not low-level, and after isotopic dilution may be buried on WEC burial site.

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All isotopes of plutonium, uranium, and thorium are radioactive and produce unwanted alpha particles, which wreck biomasses they get into. If WEC is trying to say that fissile isotopes will be diluted prior to land burial on site, these would be U-235, U-233, & Pu-239, but nonfissile U-238 is an alpha emitter and in the highest concentration. Uranium-234 isn't fissile but it is a very hazardous strong alpha emitter that is brought in to WEC in high concentration during U-235 enrichment to w/o 5% U-235.

(6) In section S-8 of the license application reports that source material, such as Uranium hexafluoride (UF_6) and products will be regulated by the State of Alabama. Does this NOT remove the NRC, EPA (RCRA) and the DOT from their lawfull regulation? Can the citizens of Alabama trust the state of Alabama to promulgate safe rules, and heavy penalities for violators. Won't this given regulation to Alabama add expenses and more taxes?

(7) We still do not have enough information concerning how the request to have on hand 50,000 kg of U-235 (W/o 95 to 5) will be safely distributed to prevent criticalities at the WEC proposed facility. How much at any one time will be:— (a) in steel cylinders as UF_6? b) How much as powdered uranium oxides? c) How much as mixed oxides, d) How much as pellets, e) How much, if any, will be Thorium-232? f) will the $235UO_2$ powder be diluted with depleted U-238? (This would greatly increse the amount of fissile materials in the reactors). g) Will the $235UO_2$ w/o @ 5% be diluted with natural U-238 (with little U-234)? h) Will powdered uranium oxides be only of oxides of U-235 w/o @5%?

In section S-9, dealing with the conversion of UF_6 to uranium oxides, the license application calls for "other compounds" into the uranium compounds. Are these pelitory sintering materials or a) thorium-232 fertile for U-233, or b) U-238 fertile for Pu-239?

In section S-10, dealing with the recover of "off site" generated scrap, clean and dirty, does this include radwastes from WEC's nuclear fuel plant in Columbia, SC and from Scraps around the world at WEC nuclear plants? If so this recovery of uranium (perhaps later Pu) involves the Nitric acid dissolowing, which is a large increase in both radpollution and chemical pollution of the Alabama River at the Prattville WEC plant. This should be denied.

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Also, Section S-10 requests authorization to degrade w/o U-235 to the natural isotopic ratio or to depleted isotopic uranium ratio, prior to disposal, perhaps on WEC site. This effect would be to decrease the proportion of the ratio of uranium-234 and to increase the total amount of disposal of all isotopes of uranium. Hazardous uranium-234 is a stronger, more energetic, alpha emitter than U-238. All uranium isotopes emit alphas, which are from 10 to 20 times more dangerous to the biosphere (sometimes 1000 times more concentrated) than betas or gammas when inhaled or swallowed or get on the skin. A nuclear fuel plant at Jonesboro, Tennessee caused a 95% increase in the incidence of cancer before it was closed down. At Irwin, Tennessee another uranium fuel plant lost a huge amount of uranium. It was either stolen or lost to the environment.

SECURITY PROBLEMS

Uranium and plutonium are hard to accurately measure. They have long half lives. They tend to deliver large doses to the lung, where they respectively cause lung cancer and after being brought up from the lung are swallowed to pass via the gut to go to the bones causing leukemia and bone cancer. After affecting the organisms of the Alabama River uranium isotopes will tend to accumulate in the sediments of the Mobile-Bay Estuary, where the seafood industry would be threatened. Who wants to eat schrimp, oysters or fish containium alpha-emitting uranium?

The packaging of uranium and saleable products (finished and semifinished) indicates that the WEC Prattville plant would produce fuel or ingrediants for uses other than pellets for conventional nuclear power reactors, perhaps for atomic weapons. The high enrichment of fissile material could be use to make high neutron flux, like in a neutron bomb. Does WEC plan to produce more than uranium for pellets or pellemts at this Prattville plant?

S-37 discusses homogeneous and heterogenous oxides for criticality control at the maximum 5% enrichment of U-235. Just what material and how much will be used for this control. Will substances like neutron absorbers borate be used? Will thorium-232 be used? Depleted uranium? How much of the oxide powders are other than UO_2? Will fertile isotopes be used to produce more fissile isotopes after irradiation in the nuclear reactors or in case of criticality?

S-16 4-1. 4.1 Dealing with regulatory compliance (presumably NRC) of radioactive materials to unrestricted areas requests standards as low as reasonably achievable (ALARA) and a large portion of this license application (S-73 to S-76) requests numerous exceptions from safety regulations, which, if granted, would GREATLY increase dangers to plant workers and the people of the Prattville-Montgomery area. Injury and property damage for these exemptions would NOT be to either NRC nor WEC, but to YOU! I would think that the mayors of both Prattville and Montgomery would want to look into these risks. What kind of quality assurance (or insurance) is WEC providing that too large risks are not involved to private citizens? Will safety be monitored for the many ALARA exemptions by the state of Alabama Department of Health. Will the Health Department have "trained" personnal and funds to do this? Will this be at the taxpayers expense? My portion of the WEC license application does not address proof by demonstrations, such as a) safety analysis, b) Who will provide the liscensing--NRC, Alabama, EPA, DOT, RCRA etc? These include responsibility for accidents along the highways involving hazardous material (chemical and radioactive) coming to and going from this WEC plant. c) Regulatory compliance manual, d) Accounting plan for nuclear materials control (to prevent stealing of material to make terroist bombs), e) Comprehensive physical security plan, f) emergency and (g) Final decommissioning plan???!

WHAT CAN YOU DO?

If you do not like the prospects of this kind of fual plant operating in Alabama you can get in touch with the NUCLEAR ACTIVITIES COMMITTEE, a joint-Interim Committee of the State Legislature. This committee exists to protect the health and safety of the citizens of Alabama. My opinion of this committee, as of now, is that it has only listened to the proponents of the WEC plant and nuclear power in general. This committee is chaired by Ann Bedsole, 25 Edgefield Road, Mobile, AL 36608.

The WEC plant must be licensed by the State of Alabama before NRC, DOT, EPA, etc., will allow its operation.

S-3 Allows the license to be amended in the future by the Nuclear Regulatory Commission "prior" to implementation. Can the citizens of Alabama be assured (insured?) that these changes will be in their best interests?

S-4 Defines a licensed waste disposal facility for radwastes by the NRC as both on site (the Prattville site) and off site (now at Barnwell, S. C. for this area). However, other states do not want radwastes from Alabama (including Barnwell which is becoming more and more restrictive). Right now the Alabama Joint Committee is looking into prospects of the State providing a low-level radwaste site in Alabama, to handle radioactive, low-level wastes from such operations as the Farley Nuclear Plant. Heavy-level wastes are "stored in water" at reactor sites. There is presently no known safe disposal for them. Farley's wastes are mostly "intermediate-level," while hospital wastes are really "low" level. The NRC will push for the approval of a rad waste dump for a region of southern states, where Alabama may be number ONE!

Georgia has repeatedly turned down both radwaste and hazardous chemical waste disposal sites. Are we in Alabama smarter? We already have one of the most hazardous chemical wastes dumps for the Eastern United States at Emelle, in Sumpter County. It is the only EPA-approved PCB dump in the Eastern U. S.

C R I T I C A L I T Y PROTECTION

S-4. The maximum permissible limit value (MPV) is defined by WEC as a value which has been "ESTABLISHED" to assure nuclear criticality safety under all "FORESEEABLE" conditions, including a maximum credible accident. I contend that Browns Ferry and Three Mile Island were also thought "established, foreseeable and incredible" but Murphey's Law was upheld and these accidents are history, dispite assurances (without insurance). Criticality safety is based on single contingency, while nuclear fuel plants operate on "double contingency" bases.

The WEC (1979) environmental report (not an impact statement) addresses many of the real risks for the operation of this nuclear facility, but in my judgment, tends to minimize their chances for human, other biotic and property damage. The major risks are to the state to "pay off" when bad risks become realities. According to the National Environmental Policy Act (NEPA) the people must be informed about the requirements for sheltering and evacuation and dangers of possible catastrophic proportions, including normal operation which will produce a steady low-level radwaste with accumulation in time to cause cancers, birth defects, and irreversible hereditary effects. WEC has this application on file at the Prattville Public Library for you to read for yourself (provided you are a nuclear engineer)!