



Ozark Chapter / Sierra Club

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66 FR 39803

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August 27, 2001

Michael T. Lesar, Chief
Rules and Directives Branch (MS T6-D59)
Division of Administrative Services
US Nuclear Regulatory Commission
Washington, DC 20555-0001

Mr. Lesar,

Please accept these as the comments of the Ozark Chapter Sierra Club regarding the University of Missouri's Research Reactor, NRC Docket No. 50-196, Amended Facility License No. R-103, and regarding the NRC's Environmental Assessment and Finding of No Significant Impact (66 FR 39803, August 1, 2001).

Rather than applying for a renewal of the expiring license, the University instead submitted an application to extend the license for five years – from November 21, 2001 to October 11, 2006. However, it is anticipated that the University will submit an application for renewal of the license during this extension period (if an extension is granted).

1. PERSONNEL PROBLEMS MUST BE CONSIDERED.

It would seem that the decision to apply for an extension rather than a renewal is due to internal administrative disruptions as outlined below. Given that

- 1) the Director has been involved in considerable controversy of a highly-visible public nature,
- 2) the operations, from a public perspective, seem to be poorly supervised,
- 3) the Director has now resigned, while filing defamation lawsuits against former employees,
- 4) the facility itself is engaged in commercial operations of uncertain ethical standards and practices, and
- 5) there have been allegations of stifling of concerns of employees ("anti-whistleblower") which have warranted investigation by the NRC,

it would appear that this is an operation in chaos.

The nature of a Nuclear Research Reactor is such that careful controls, supervision and oversight must be constantly maintained. Yet, the historic record of this facility is one in which the opposite is documented, and in which paranoia, management by whim, favoritism and nepotism are the orders of the day.

It is understood that the Nuclear Regulatory Commission would prefer to keep personnel matters and license extension applications separate. Yet, the fact is that reactors are only as safe as those in operating them...and the personnel record of this facility is dismal. Employees of MURR (Missouri University Research Reactor) have spoken publicly of a "chilling effect" of administrative actions taken against those

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who have reported problems at the Reactor. It is clear that the University Administration would prefer to punish those reporting such problems, rather than deal with the problems reported.

This is not an issue on which the NRC can take the same stance as the University and claim that such problems are hyperbolic subjectivity by disgruntled employees...and that such issues are not central to safety matters. The facts are that the issues reported by the employees were directly related to releases – potential or real – of radioactive emissions to the environment.

In questions regarding re-licensing or extensions of existing licenses to operate, the NRC must take into account the past record of operations of this facility. Those operations are, in turn, directly related to the professionalism and competency of MURR administrators and personnel. Both of those matters have been subjected to public scrutiny and found wanting.

In order to maintain public support and to ensure the public that someone is providing oversight on nuclear safety, we would request that any decision on this extension and/or renewal be deferred until such time as there is administrative stability at MURR.

2. COMMERCIAL NATURE OF MURR

While the MURR license and indeed the name itself refers to a “research reactor”, the fact is that this facility stays open due to its commercial ventures. The University of Missouri – Columbia could not afford to provide the necessary financial support to maintain this operation.

Consequently, the commercial nature of MURR cannot be ignored, especially when it is considered that it is the commercial operations that are the basis of problems at the facility. There is an internal contradiction – perhaps an inevitable conflict – between research and commerce. Commercial ventures need to have distinct timetables when projects are expected to be completed. Whether this is production of isotopes for cancer therapy or irradiated gems, the normal variables for “research” do not apply. While research often has goals and those goals may contain timetables, it is understood by all concerned that things may go awry in research projects, or there may be unintended or unexpected consequences that must be investigated, and consequently the deadlines for research projects are not rigid.

a. The NRC must determine whether MURR is “private” or “public” reactor, and whether its mission as a “research reactor” is compromised by commercial contracts.

b. The NRC must determine if the commercial ventures of MURR are appropriate for a research facility, in light of the difficulties caused by the commercial ventures.

3. PROXIMITY TO RESIDENCES AND URBAN AREAS.

The MURR facility is located in a urban/residential setting, and its location is further compromised by proximity to a Red Cross blood bank and University of Missouri athletic facilities. On “football

weekends" there are as many as 60,000 additional persons within ½ mile of MURR. Any accidental release of radioactive materials would have dire consequences.

Since however, it is assumed that a nuclear accident of a Three Mile Island or Chernobyl status is highly unlikely, the cumulative impact of a succession of smaller incidents is of more concern. Therefore, while there is no absolutely safe place on earth to site a nuclear facility, some places are inherently more unsafe than others. Certainly the presence of a nuclear reactor in a city of 85,000 and within ½ mile of university dormitories and ¼ mile from urban residences, contains greater threats to public safety than a reactor located in Dugway, Utah.

The writer of these comments lives within ½ mile of the MURR, and this writer and his neighbors are continually aware of its presence. Every morning and every afternoon, thousands of commuters pass by the MURR to and from their way to work and school. The clouds of steam on cold days provides a constant reminder that this facility is there and doing secret things with radioactive elements.

Comfort is not derived from the constant string of problems at this facility. It appears to be constantly teetering on the brink of administrative meltdown.

Given the public insecurities about this facility, and its presence in an urban setting, it is difficult for the public to have any degree confidence in its operations... and such inconfidence is not enhanced by "findings of no significant impact" on the part of NRC. To state that MURR is incapable of significant impact is akin to stating that water is not wet. NRC only degrades itself with such dubious findings.

4. THERE IS NO SAFE PLACE TO STORE RADIOACTIVE WASTES.

The recent flap over the transport of radioactive wastes is educational. On one hand, Missouri officials were claiming that it is unsafe to use I-70 as a route to transport spent fuel rods from electric-generating nuclear power plants, on the other hand they claimed that it was safe to transport radioactive wastes from the MURR. While the difference between high-level and low-level wastes had something to do with this, the facts are that transport of ANY radioactive wastes is hazardous...and made doubly so by the high volume of traffic and increasing number of vehicle accidents on I-70.

All of squabbling about transportation avoids the central issue, one that NRC and other associated with the nuclear industry have attempted to ignore: There is no safe place on earth to store radioactive wastes for the extremely long periods of time in which the material remains hazardous to human health.

In the meantime, reactors continue to spew this stuff out as if hiding it in Barnwell or at Yucca Mountain is a solution. There are not solutions. The first ounce of radioactive waste produced is still setting somewhere emitting hazardous rays. There is no method of neutralizing, there is no way of disposal, and there is no safe place to store it.

It is disingenuous to proclaim a "finding of no significant impact" and ignore the realities of waste transport and storage.

The NRC must stop hiding its head in the sand, and acknowledge the very real impacts and threats from creating the most dangerous substance on earth, while there are no safe methods of transport or storage.

5. MANUFACTURE OF BOMB-GRADE URANIUM.

If we consider it disingenuous for NRC to proclaim that production of radioactive waste has “no significant impact”, when that statement is applied to the creation of bomb-grade uranium, this goes from the sublime to the ridiculous. The enrichment of uranium to a fissionable isotope – U-235 – creates an immediate and present threat because this material can be used for the manufacture of nuclear weapons. Such is eagerly sought after by terrorists and maverick nations.

It is inexcusable for an alleged “research reactor” to produce bomb-grade uranium. There is no educational or scientific justification for this.

NRC should immediately prohibit MURR from enriching uranium to bomb-grade isotopes, regardless of any issues of licensing.

6. THE USE OF GRAPHITE.

It is our understanding that graphite is used as a neutron reflector and in the thermal column. Specifically, according to an article in the Columbia Daily TRIBUNE (Nov. 12, 1986) there are 400 pounds of graphite surrounding the beryllium shield in the reactor’s fuel core. Graphite is highly flammable, and releases combustible gases when exposed to water and heat.

We are not aware that MURR has any fire response and evacuation plan on file with NRC specifically regarding the hazards associated with the use of graphite.

The use of graphite in the neutron reflector and in the thermal column must be considered carefully by NRC in any “finding of no significant impact”.

7. AVAILABILITY OF TRAINED PERSONNEL.

We have previously discussed the administrative and personnel difficulties at this facility – and it is assumed that NRC is aware of these (although continuing to assert that in some mysterious fashion that it is possible to separate a facility from its operators). There is a dearth of trained reactor personnel in this country. Likely the reason for this is that it is assumed by those inclined to enter this field that it is a “dead end”, in that literally all currently licensed nuclear power-generating plants will be closed in the near future, and no new ones are being considered.

Given the feud between and among the administrators and staff at the MURR, and the subsequent departure of the key players, the availability of competent staff becomes an important issue.

NRC must determine if MURR has capable staff on hand to operate this facility, and if not, ascertain what the plans are to acquire such personnel.

SUMMARY.

We do not believe that the statement of “no significant impact” is documented by the facts nor supported by the historical records of this facility. Rather, we believe that significant impacts are not only possible, but likely given the lack of professionalism, the rampant commercialization, and the defensive attitude of university officials. When off-site factors (transport and storage) are added, along with the production of bomb-grade materials, there are likely to be significant short- and long-term impacts as a result of the operations of this research reactor.

We recommend that any decisions regarding licensing extension or renewal be deferred pending a total and complete re-examination of the fundamental findings of the “Environment Assessment and Finding of No Significant Impact”.

Sincerely,



Ken Midkiff

CC: US Rep Kenny Hulshof
Governor Bob Holden
MODNR Director Steve Mahfood
UMC President Manuel Pacheco