

1 project. Hence, based on my background and personal knowledge, I
2 am qualified to attest to the participation of Rockwell in the
3 TRUMP-S experiments at the Alpha Laboratory.

4 3. Intervenors have earlier complained about the
5 participation of personnel of Rockwell in the conduct of the
6 experiments at the Alpha Laboratory, and now allege that Rockwell
7 is "controlling every major aspect" of Licensee's performance of
8 the TRUMP-S experiments. Intervenors' Written Presentation at
9 52-53. I will first describe the participation of Rockwell's
10 personnel in the TRUMP-S experiments and the contractual
11 arrangements with Rockwell. I will then respond to Intervenors'
12 allegations, which are completely without merit.

13 Participation of Rockwell Personnel

14 4. The administrative and managerial control of the work
15 involving radioactive materials to be performed under the subject
16 license amendments is exclusively the responsibility of the
17 Licensee in conformance with the requirements of Broad Scope
18 Byproduct Material License (24-005213-32) and Special Nuclear and
19 Source Material License (SNM-247). The Licensee's system of
20 administrative and managerial control has been used for
21 approximately 20 years to ensure safety and environmental
22 protection in the use of radioactive materials at the MURR
23 facility. For TRUMP-S activities under the two subject license
24 amendments, Licensee has determined that only University faculty
25 and staff members will obtain status as authorized users, who
26 must direct and supervise the performance of any work.

27 5. The Affidavit of Dr. Susan M. Langhorst Regarding
28 Adequacy of Safety Procedures, Administrative Controls and
29 Licensee's Personnel Qualifications (Licensee's Exhibit 9)
30 describes in detail the administrative controls that apply to
31 approval of authorized users and to the radiological control
32 program for the TRUMP-S experiments. As noted above, authorized
33 users are limited to personnel supported through Licensee.
34 Therefore, no Rockwell personnel are eligible to be authorized
35 users responsible for performance of a TRUMP-S experiment at the
36 Alpha Laboratory. Rockwell personnel have participated in
37 experiments involving actinide materials under the direction and
38 control of a Licensee authorized user. But they have only
39 handled, and in the future can only handle, radioactive materials
40 in this University research project under the direction and
41 supervision of the authorized user and the Reactor Health Physics
42 Manager.

43 6. There have been three Rockwell personnel who have spent
44 time working at MURR in conjunction with this project:

1 Mr. Jeff Roy, Chemist, has spent the most time at
2 MURR. He was in Missouri for a total of 96 days
3 during March to September 1990 while working at the
4 Alpha Laboratory. He has the most hands-on
5 experience in doing similar experiments in a glove
6 box, including the thermodynamic measurements of
7 selected lanthanides at Rockwell. He has served as
8 a resource person in helping Licensee set up the
9 equipment for the experiments. Licensee has drawn
10 on his experience in doing the lanthanide
11 measurements and has applied it to doing the
12 actinide measurements. Mr. Roy was responsible for
13 the initial training of Dr. Krueger in performing
14 the lanthanide experiments in the argon glove box
15 as part of his training for performing the actinide
16 experiments.

17 Dr. Leroy Grantham, Senior Scientist, was in
18 Missouri for a total of 70 days during March
19 to August 1990, while working at the Alpha
20 Laboratory. Based on his Rockwell experience,
21 he has helped Licensee to draft procedures and
22 has provided valuable advice and insights
23 regarding the setup of the laboratory and
24 conduct of the experiments.

25 Mr. Dave Stelman, Chemist, was in Missouri for
26 a total of 14 days during April 1990 while
27 working at the Alpha Laboratory. He assisted
28 in setting up the data acquisition portions of
29 the electronic equipment that was transferred
30 from Rockwell to Licensee.

31 7. Six other Rockwell personnel have visited the University
32 to attend meetings concerning the TRUMP-S project. Dr. Richard
33 Gay, the Rockwell technical manager for the TRUMP-S project, has
34 been to MURR twice to review status of the project. Mr. Mark
35 Gabler, Rockwell's program manager for the TRUMP-S project, made
36 four one or two-day trips to MURR to review and discuss the status
37 of the project. Mr. Eli Sank, Project Development Engineer,
38 attended one meeting at MURR. Mr. Robert Mucica, Director of Land
39 Based Power Projects, visited the University once. Mr. Robert
40 Tuttle, Manager of Radiation and Nuclear Safety, attended one
41 meeting at MURR. Mr. Clark Gibbs, Atomics International Division
42 Director, attended the April 23, 1990 Alpha Laboratory ceremonies
43 where Missouri Governor John Ashcroft cut the ribbon.

44 8. Rockwell personnel participating in the TRUMP-S
45 experiments have gone through the MURR indoctrination training so
46 that they are knowledgeable of their responsibilities with respect
47 to health physics practices and procedures, emergency planning and
48 procedures, and security procedures at MURR. They realize that

1 their access to the Alpha Laboratory is dependent on following the
2 MURR procedures while in the facility.

3
4 Contract with Rockwell

5 9. Licensee is under contract to Rockwell to perform
6 experiments involving actinide samples for the TRUMP-S research
7 project. Under the contract for this work, Licensee is obligated
8 to perform the work agreed upon in the "scope of work." The
9 contract clearly states that the work will be performed by
10 individuals who are employees of the University, which acts as an
11 independent contractor under the contract. The contract clearly
12 states that employees of the Licensee are not Rockwell employees,
13 even if they need to perform some of the work at the Rockwell
14 site.

15 10. The contract grants to Rockwell a period of up to one
16 year to review proposed publications, but permits Licensee to
17 publish even if Rockwell does not consent after one year from
18 presentation to Rockwell. Licensee has obtained Rockwell's
19 consent for the publication of the first results of the research
20 performed during August-September, 1990. These results are now
21 being reviewed by the Electrochemical Society for publication in
22 their Journal. See Affidavit of Truman S. Storvick Regarding
23 Academic and Research Objectives of the TRUMP-S Program
24 (Licensee's Exhibit 14).

25 11. As an additional check to assure that activities are
26 conducted in accordance with project requirements, Licensee
27 submits TRUMP-S plans and procedures to Rockwell for review and
28 approval prior to use. This has resulted in only a few minor
29 suggestions for changes, such as adding a step to inform Rockwell
30 if there occurs an emergency involving the Alpha Laboratory.
31 Licensee remains in charge and must satisfy itself that the work
32 is in compliance with all requirements of NRC licenses and MURR's
33 health physics practices. Rockwell can contractually stop or
34 delay work. Rockwell cannot direct Licensee to do anything that
35 the Licensee considers inappropriate.

36 12. Rockwell personnel have assisted Licensee by using their
37 experience in performing the lanthanide tests to draft procedures
38 for performing the actinide experiments. These have served as
39 starting points for the MU researchers in producing the procedures
40 at the Alpha Laboratory required to do the experiments (TAMs).
41 The final procedures, those currently being used, have all been
42 written and approved by Licensee's staff. The TAMs require the
43 approval of the Principal Investigator and the appropriate
44 Licensee management representative (either the Health Physics
45 Manager, Reactor Manager, or Facilities Manager). The approved
46 procedures are reviewed by the Isotope Use Subcommittee. The

1 revised procedures to the Standard Operating Procedures (SOP) and
2 Facility Emergency Procedures (FEP) are approved by the Reactor
3 Manager and reviewed by the Procedures Review Subcommittee. The
4 MURR Reactor Advisory Committee reviews the actions of the
5 Procedures Review Subcommittee and the Isotope Use Subcommittee.
6 The actions of the Isotope Use Subcommittee are also reviewed by
7 the Central Radiation Safety Committee. All procedures have been
8 reviewed, finalized and approved pursuant to the Licensee's
9 processes (Committees, etc.). Licensee has full control.

10 13. Rockwell has the right to audit Licensee concerning
11 quality assurance of experimental measurements. Rockwell also has
12 the right to examine any directly pertinent books, documents,
13 papers, and records of Licensee involving transactions related to
14 the contractual agreement.

15 Response to Intervenors Allegations

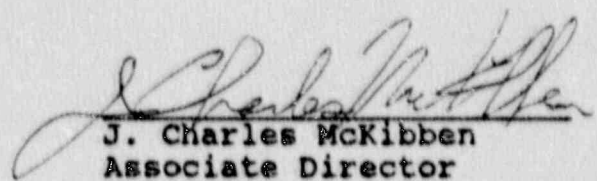
16 14. Intervenors' reference the June 7, 1990 memorandum from
17 Mr. Gabler and falsely claim that it threatens Licensee with loss
18 of Phase II work. Intervenors' Written Presentation at 52. The
19 memorandum is typical of correspondence involving a large
20 contracted project where one party's program manager is reminding
21 people working on the project of the outstanding tasks to be done
22 and the schedule that needs to be followed in order to meet
23 contractual obligations. Intervenors choose not to mention that
24 the memorandum also stresses that health and safety considerations
25 must remain paramount to all other considerations.

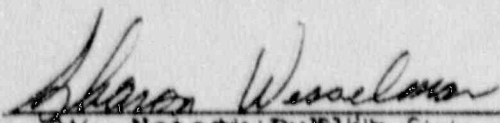
26 15. The Intervenors reference the May 21, 1990 Dr. Marcus
27 Price memorandum as indicating substantial difficulty in working
28 out contractual terms on the rights to publish. Intervenors'
29 Written Presentation at 52. The original Rockwell contract
30 proposal contained standard corporate contractual restriction on
31 publications. Licensee took exception to certain terms in the
32 contract in a letter of January 29, 1990. The restriction on
33 publications was one of the items that the University would not
34 accept. As stated in the May 21 memorandum, "Restrictions on
35 publication strikes at a fundamental mission of the University."
36 Instead of indicating substantial difficulties, this memorandum
37 demonstrates that Licensee was not willing to compromise on one of
38 the basic objectives in doing this type of project - offering
39 unique research and educational opportunities. As a result, the
40 final contract with Rockwell did not contain Rockwell's standard
41 restriction on publication. Instead of indicating that Rockwell
42 was controlling every major aspect of the project, the contractual
43 provisions on publication are an excellent example of an
44 industrial corporation realizing the unique talents and skills
45 that a major research university can offer and providing for a
46 research partnership that allows for the academic needs of the
47 university.

1 16. Intervenors reference the July 23, 1990 memo from Mr.
2 Gabler as indicating that "it really is Rockwell calling the
3 shots". Intervenors' Written Presentation at 52-53. If the brief
4 two paragraph memorandum is read in its entirety, it is obvious
5 that the memorandum is just communicating that DOE has given
6 permission to use the DOE supplied actinide materials in the
7 project experiments. This clearly states that DOE controls
8 whether its materials can be used. Since Rockwell contracted with
9 DOE to obtain the materials, DOE authorizes Rockwell to use the
10 supplied actinides, and Rockwell can then authorize Licensee to
11 use the actinides in the experiments it has contracted to be
12 perform. Instead of suggesting that Rockwell is calling all the
13 shots, the memorandum indicates that Rockwell understands that the
14 work with the various actinides is controlled by Licensee's
15 Isotope Use Subcommittee, which approves the use of the materials
16 in the Alpha Laboratory.

17 17. Intervenors state that the pressure to run night and
18 day, every day, is the most worrisome aspect from a safety
19 standpoint. Intervenors' Written Presentation at 53. It is not
20 pressure from Rockwell that requires these experiments to "run
21 night and day," but the type of experiment that is being
22 conducted. Once an experiment is started on free energy or
23 activity coefficient determinations, it needs to go to completion.
24 The time required depends on the materials and the type of test.
25 For the actinides of interest, the time can vary from ten hours to
26 a few days, and the experimental equipment is set up to handle
27 this. Additionally the facility staffing, operating schedule (24
28 hours/day, 7 days/week), and the infrastructure at MURR are set up
29 for and routinely provide the oversight and safety to support this
30 type of nuclear related experiments that operate night and day.

31 Subscribed and sworn
32 before me in
33 BOONE County,
34 Missouri this 13th day of
35 November 1990


J. Charles McKibben
Associate Director

36 
37 Sharon Wessels, Notary Public, State of Missouri
My commission expires February 21, 1991
Boone County, Missouri
38 My Commission Expires
39 2-21-91