

Preliminary pending Commission approval

Rhode Island Atomic Energy Commission

Meeting of 14 December 2011

8:30 A.M.

Dr. Mecca called the meeting of the Rhode Island Atomic Energy Commission to order. Present were Commissioners Dr. Nassersharif, Dr. Nunes, Dr. Gromet, Dr. Mecca, and Dr. Kadak. Staff: Dr. Terry Tehan, Hank Bicehouse, Jeff Davis, Zack Richards and Steve Guarino. Dr. Tom Mannock from State personnel and Mr. Jack Donohue of the Nuclear Regulatory Commission also attended.

1. Approval of minutes of 5 April 2011 Meeting:

The minutes of the meeting were reviewed. Mr. Bicehouse stated that the comment in item two regarding the staff was not correct. After a discussion Dr. Gromet made a motion to change the wording from “given the staff’s opposition to Commission’s consideration of this subject and reluctance to develop” to “ given the apparent lack of a comprehensive review”. Dr Kadak seconded the motion. The Motion passed unanimously. Dr. Nunes made a motion to accept the minutes. Dr. Kadak seconded the motion. The Motion to accept the minutes passed unanimously. (Enclosure 1)

2. Approval of new NRSC members:

A discussion was held regarding the qualifications of the new members Dr.Kadak made a motion to approve :

Dr. James Sherrard

Mr. John Abel

Mr. Roger Kelly

Mr. Stephen Jackson

Dr. Gromet seconded the motion. The Motion to approve the new members passed unanimously.

3. State Budget. Dr. Tehan presented a report on the state budge and the Governor's Budget review process. A discussion was held regarding the budget trends and where the cuts were being felt. (enclosure 2)

4. NRC Re-licensing and Operations –Jeff Davis stated that we have not received any more questions from the NRC, but we have the answers ready for the next set of questions when they arrive. A discussion was held regarding the 10CFR20 relationship to the technical specifications.(enclosure 3)

5. Facility Utilization-Jeff Davis gave an extensive brief on facility operations and utilization and pointed out that we have shifted more toward educational initiatives and that research initiatives are still going on. Dr.Kadak asked about commercial initiatives and Dr.

Nassersharif mentioned the possibility of teaming up with the ATR and the University of Wisconsin to do projects. Jeff Davis discussed the fact that he has been in discussions with AREVA about potential services that RINSC could provide. Jeff Davis pointed out that David Johnson, a retired staff member had been very active in helping interns and the commissions asked Mr. Davis to draft a letter of appreciation for their signature. (Enclosure 4)

6. Old Business-Duties and responsibilities of RIAEC- a discussion was held regarding the duties and responsibilities of the commission and the Commissioners felt that they still had extensive duties under existing law. After reviewing the results of the Governor's program Review which concentrated on education and research, they directed Dr. tehan to draft a letter for the Chairman's signature to Ms. Jamia McDonald, the Deputy Chief of Staff for the Governor, requesting a meeting to discuss the issue.

7. New Business-

A. A discussion was held regarding the severe weather procedure and Dr. Kadak suggested that the procedure included detailed steps for filling the pool without electrical power.

B. Dr. Nassersharif asked when the dry gamma room would be available for students. Steve Guarino stated that the company making the new alarm system was experiencing delays but was trying to get the system to us in December. When the system is installed, the room

will be available for students.

C. Dr. Kadak mentioned that we should take pictures of the foundation cracks so we have record in the future.

D. Dr. Mecca stated that a doodle (scheduling program) should be sent out for the next meeting in March 2012.

8. Adjourn Dr. Mecca requested a motion to adjourn. Dr. Kadak made the motion and Dr. Nunes seconded it. It passed Unanimously.

Enclosure 1. Meeting minutes

Rhode Island Atomic Energy Commission

Meeting of April 5, 2011

8:30 A.M.

Dr. Mecca called the meeting of the Rhode Island Atomic Energy Commission to order. Present were Commissioners Dr. Nassersharif, Dr Nunes, Dr Gromet and Dr.Mecca, and Dr. Kadak. Staff: Dr. Terry Tehan, Hank Bicehouse, Jeff Davis, Zack Richards and Steve Guarino. Dr. Tom Mannock from State personnel also attended.

8. Approval of minutes of 8 October 2010 Meeting:

The minutes of the meeting were reviewed. Jeff Davis stated that the

comment in item one regarding the schedule was not correct. After a discussion Dr. Nassersharif made a motion to delete the third sentence from item one. Dr Gromet seconded the motion. The Motion passed unanimously. Dr. Nunes made a motion to accept the minutes. Dr. Kadak seconded the motion. The Motion to accept the minutes passed unanimously. (Enclosure 1)

9. Duties and responsibilities of RIAEC- a discussion was held regarding the duties and responsibilities of the commission given that the enabling legislation was over 50 years old and many of the functions in that legislation were now shared or taken over by other agencies. Given the apparent lack of a a comprehensive review, Dr. Mecca stated that he would try to find a political science student to research the subject and get back to the Commission with the findings.

10. NRC Re-licensing –Jeff Davis stated that all but three RAI items had been answered and Argonne National Lab personnel were working them. He is working on updating the Technical Specifications and that should be done by the September deadline. We have not received any more questions from the NRC, which indicates that we will get feedback on all the questions at once.

11. Budget-Dr. Tehan stated that we would probably end the year slightly in the red due to unbudgeted travel and training cost. (Enclosure 2)

12. Web site/ Fuel Shipment –Steve Guarino gave a brief on the web site and fuel shipment status. (Enclosure 3)

13. Facility Utilization-Zack Richards gave an extensive briefing on facility operations and utilization. (Enclosure 4)

14. Dr. Reinhardt appointment to NRSC. After an extensive discussion on the needs of the Safety Committee, three motions were made. A motion to approve Dr. Reinhardt’s nomination was made by Dr, Nunes and seconded by Dr. Gromet. The motion was approved unanimously. Dr. Kadak made a motion to have Dr. Tehan contact Electric Boat, NUIC, and Millstone Power Plant to find additional members. Dr. Nassersharif seconded the motion. The motion passed unanimously. Dr. Nunes made a motion to have the commissioners find another individual from URI to fill the empty slot required by the technical specifications and the Charter. Dr. Nassersharif seconded the motion. The motion passed unanimously. (Enclosure 5 Dr. Reinhardt’s resume)

15. New Business-A discussion was held regarding emergency procedures for an accident beyond the scope of current emergency planning considerations. Dr. Kadak requested that the staff document the preparations to deal with events similar to the Japanese earthquake and Tsunami experience.

10. Adjourn Dr. Mecca requested a motion to adjourn. Dr. Kadak made the motion and Dr. Nunes seconded it. It passed Unanimously.

Enclosure 2

General account- We have spent \$763,558 of the \$879,592 enacted budget. This figure includes payroll for the staff for the rest of the year that was already encumbered. We have \$116,063 for the remainder of the fiscal year. Since we laid off the interns we saved \$20,000 and we should be in the black at the end of the year. We also shifted the cooling tower repair to the capital account which saved \$7,000 and we did the install ourselves which saved another \$7,000. Electricity and insurance are the two major variables which will determine where we stand at the end of the year and we will shift as much of those costs as possible to the URI sponsored research account. The URI sponsored research account is in good shape since it is pay as you go for salaries and the extra 40% overhead charge is billed at 6 month intervals (20% each).

Capital Budget (asset protection). We have used up the \$50,000 for this year and we tried to get the unused sum from last year (\$13,000) but the budget officer would not allow it. We did the 3 roof repairs (\$17,000), control room ceiling replacement (\$9,700), and the cement foundation inspection (\$25,000). We had to use money from the infrastructure grant to get the last job approved inside our budget. If the cement inspection turns up significant work, it will have to come from next year's capital budget of \$50,000.

Federal grants. We completed the last infrastructure grant which upgraded the secondary systems and we have \$15,000 remaining to do more system upgrades. The infrastructure grant for this year is still being processed by DOE. the major item in that grant is replacement of the scram amps for \$97,000. The two amps are being manufactured by General Atomic.

The Gadolinium Grant has \$7,000 left which can be used for training and travel since the other grants do not include these natural accounts. The Nuclear Engineering Education Grant has \$20,000 which may have to be used to cover the intern salaries. Until now, I have been using the general account but House Fiscal and Budget have caught on and expect these costs to come from the grant account. Bahram has allotted \$9,000 for next year so we can restart paid internships. Until then, they will be unpaid internships. We will be submitting another infrastructure grant request in February.

Enclosure 3

Operations Report

Prepared for the 111214 RIAEC Meeting

Facility Re-Licensing

The RINSC Byproduct License R-95 which covers the reactor, and all of the radioactive materials produced as fission fragments or activation products (byproduct material) has been in timely renewal since 3 May 2004. NRC began looking at the application for license renewal in 2009, and issued a Request for Additional Information on 13 April 2010. This request included 252 technical questions. All of the questions were answered and submitted by 15 July 2011. The NRC reviewed the responses, and on 16 August 2011 met with the RINSC staff, along with representatives from Argonne National Laboratory and the contractors hired by NRC to review the RINSC re-licensing application. At that time there were a total of 20 second round questions. Of these:

7 Questions are related to the Radiation Safety Program

4 Questions involve rewording for clarification

3 Questions are related to the Experiment Program

2 Questions are related to the transient analysis

1 Question is related to fuel qualification

1 Question is related to administrative controls for a LOCA

1 Question is related to limited conditions for operation during fuel handling

1 Question is a request to send a copy of a reference that was cited

At present, RINSC is waiting for NRC to provide an official set of

second round questions.

On 6 October 2011, RINSC submitted a first pass at proposed facility Technical Specifications based on the safety analysis that has been done to date. At present, RINSC is waiting for NRC comments to the proposed set of Technical Specifications.

Facility Funding

FY 2011 NEUP Reactor Upgrades Grant Award

The RINSC staff submitted a proposal for this grant and was awarded \$150,000 for reactor upgrades. The upgrades include:

- A. New control rod magnet current amplifiers**
- B. New Master Switch**
- C. New digital reactor power level and trend display**
- D. New digital stack and main floor air monitor display**
- E. New digital area radiation monitor display**

When this upgrade is finished, the front faces of all of the floor instrumentation racks will have been upgraded, which will dramatically improve the way that the control room looks.

FY 2011 NEUP Infrastructure Grant Submission

The RINSC staff submitted a proposal for this grant, but unfortunately it was not funded.

AREVA Collaboration

The RINSC staff has been in communication with Mr. Kim Stein from AREVA. Mr. Stein is a Business Development Director at AREVA. AREVA has an interest in partnering with facilities such as RINSC to help recruit top quality students to go into the nuclear energy field, and to help provide the infrastructure to develop these students. In

August of 2011, RINSC provided AREVA with an overview of the nuclear science and engineering education program at the facility, and provided suggestions for ways that AREVA might be able to enhance the program. Suggestions included:

- A. Helping to fund a high school science teacher workshop**
- B. Funding student internships at RINSC**
- C. Funding engineering design projects at RINSC**
- D. Funding instrumentation upgrades**

In addition to providing suggestions for ways that AREVA may be able to help RINSC, it was suggested that an effort should be made to determine whether or not there is anything that RINSC may be able to do for AREVA. RINSC has the ability to do radiation detector testing, and may be of some use in the development of new types of detectors, and doing quality assurance testing of detectors that they have on the market through Canberra (owned by AREVA).

AREVA is going to see whether or not they can fit some of the funding initiatives into their budget for next year, and consider whether or not there are services that RINSC could provide that would be useful to AREVA.

FY 2012 NEUP Reactor Upgrades Grant Announcement

The Department of Energy has released a Funding Opportunity Announcement for university level research reactor upgrades. Proposals are due on 8 February 2012. The RINSC staff intends to submit a proposal for this grant.

FY 2012 NEUP Infrastructure Grant Announcement

The Department of Energy has released a Funding Opportunity

Announcement for scientific infrastructure support. Proposals are due on 8 February 2012. The RINSC staff intends to submit a proposal for this grant.

Facility Upgrades

Cooling System and Ventilation System I&C

DOE NEUP grant funds were used to upgrade the cooling system and ventilation systems instrumentation and controls. The new system makes use of the Opto-22 architecture that was used for upgrading the control rod drive system control. Both systems have a digital piping and instrumentation diagram display that shows the status of system parameters.

Rabbit System Blower

The rabbit system blower was upgraded so that it has a slightly higher capacity. Occasionally with the old blower, rabbits would get stuck because there was not enough air pressure / suction to move the sample holders all the way back through the system. The rabbit upgrade project increased the distance that the rabbits travel. Consequently, the decision was made to increase the capacity of the blower.

Facility Utilization Highlights

The Reactor Supervisor sent the Commission an outline of the facility utilization for the period since the last Commission meeting.

Highlights of the utilization report are:

Marketing Brochure

The facility marketing brochure for education was sent out to local high schools on 8 November 2011.

URI Me Design Project

The URI Mechanical Engineering design project for academic year 2011 / 12 is a filter system for the dry irradiation room. The room has the potential to be used as a gamma sterilization facility for large objects. However, in order for this to be useable for this purpose, the neutron flux must be filtered out in order to prevent the targets from becoming activated. Potential uses for the facility as a gamma sterilization facility include medical device sterilization, and food irradiation.

GSO Saturday Science Day

As part of the GSO Bay Campus 50th anniversary celebration, the campus held its annual Saturday Science Day on 25 June 2011. As the facility has done in the past, RINSC participated in this event. More than 150 interested individuals from the community toured the facility.

Johns Hopkins Center for Talented Youth

In July and August of 2011, RINSC provided tours, demonstrations, and laboratory exercises for students participating in the Center for Talented Youth summer program that is run by Johns Hopkins University. RINSC has been collaborating with Johns Hopkins on this program for several years now.

URI Physics Student Project

Ms. Constance Hathaway was a physics student from the University of Rhode Island. She did her senior physics project at RINSC. Her project was to characterize the neutron flux at the window face of the dry irradiation facility.

German Student Project

Mr. Benedikt Groever was a student from Germany that won a competition that paid for him to do a summer science project in the United States. For his project, he chose to characterize the gamma doses in the dry irradiation facility, as well as in the dry gamma tube, using the high dose rate gamma probe that Infoscitex purchased for RINSC in return for irradiation services.

Incidents

Hurricane

It was projected that a hurricane would pass through Rhode Island on Sunday August, 28th, 2011. In response, the staff took the following actions in order to reduce the likelihood that the facility would be damaged by the hurricane:

- A. The cooling towers were secured**
- B. Drains were opened to prepare for flooding**
- C. The picnic Table was secured**
- D. The basement floor was cleared as a precaution against flooding**
- E. Power to sensitive electrical equipment was turned off**
- F. The intake and exhaust dampers were closed**
- G. All interior doors were closed**
- H. The antenna from the confinement roof was removed**
- I. The generator was turned off**

Upon re-entry on Monday August 29th, there was no damage to the facility found. The telephone lines were not working. The security alarm system radio back-up was tested in order to verify that the alarm system was still functioning without the telephone system. The

telephone company was contacted in order to get service restored. Staff member cell phones, and the walkie-talkie were used as alternative communication devices until phone service was restored. On August 31st, a Verizon representative came to the facility to restore their part of the telephone system back to normal. On August 2nd, URI representatives came to the facility to get the university part of the telephone system working. Telephone service was restored.

Radiation Exposure Incident

On the morning of October 25, 2011 the SRO on Duty was working with an intern to determine the maximum gamma dose in the RINSC dry irradiation facility during full-power operations in the low-power section of the pool. This was to be achieved using an ion chamber located in the irradiation facility adjacent to the “window” that faces the reactor core.

A gamma probe was positioned inside the dry irradiation facility, and a temperature measurement was taken for calibration purposes. The SRO and intern then worked together to move the core to the low power section of the pool, placing it adjacent to the irradiation facility. The intern was then instructed by the SRO to lock the gate that restricted access to the irradiation facility during operations.

While the intern was down on the experimental level to close the door, he re-entered the irradiation facility to double check the temperature reading in the room. The intern returned to the control room to assist in the reactor start-up. During conversation in the control room, the intern informed the SRO that he had verified the temperature measurement. Once the SRO realized that the intern had

re-entered the room after the core had been moved to that section of the pool, he notified the health physics staff and informed them about the incident. The intern estimated that he had been in the doorway of the facility for approximately five minutes.

The planned reactor operation was terminated, and the reactor was secured in the low power section of the pool so that survey data could be taken. The Assistant Director for Radiation Safety asked the SRO and the intern to independently reconstruct the timeline and sequence of events that lead to the incident, to the best of their ability.

The Health Physicist made an area survey of the area around the dry irradiation facility, and near the door to the facility (see attached survey map). The SRO took a five minute integrated dose measurement with the gamma probe that had originally been put into place in the facility, and determined that the gamma dose over a five minute period was approximately 2.8 Rem.

The dosimetry that the intern had been wearing was collected and sent via overnight delivery for analysis. The intern was informed to stay out of radiation areas until further notice.

The Assistant Director for Radiation Safety notified NRC Headquarters as required for reportable occurrences, informed them of the situation, and indicated that an investigation was on-going.

The reactor was moved back to the high power section of the pool, and the gate was verified to be locked.

On the afternoon of October 26, 2011 the results from the dosimetry that the intern was wearing when he entered the dry irradiation facility

were received. The results showed that the deep dose to the intern was 115 mRem.

Corrective actions taken include:

A. Effective 26 October 2011 no interns are allowed to go into the reactor room or work on nuclear systems until a new training program has been developed, and they have been trained IAW the new program. This program is currently being developed. No due date has been specified because it has been deemed to be important to take the time to develop a solid program rather than to just put something together quickly.

B. Effective 26 October 2011 there will be no use of the Dry Irradiation Facility until a written procedure for its use has been approved by the NRSC. This procedure has been written and was sent to the Safety Committee on 2 November 2011. The procedure is entitled "XP – 10 Dry Irradiation Facility Irradiations". The Committee has reviewed and approved the procedure.

C. On 31 October 2011 the RINSC staff was re-trained on high radiation controls and procedures.

D. As soon as possible, there will be a radiation warning system installed for the Dry Irradiation Facility that will consist of:

1. An ion Chamber
2. Three strobe lights positioned so that one is visible inside the irradiation facility, one is visible at the gate to the area of the facility, and one is visible at the reactor room entrance
3. Remote readout display

All of these items have been ordered and will be installed as soon as

possible after arrival.

Water Main Break

On Friday November 4th, 2011 the Bay Campus was notified that there was a water main break in the neighborhood that supplies water to the campus. Though the RINSC facility did not see any effects of this, reactor operation was suspended until the water main was fixed. This action is in accordance with RINSC Procedure EP – 01 Emergency Plan Operating Procedure. The RINSC Emergency Plan lists utilities failures as a potential unusual event that could be reportable to the NRC. The action level for this event to be reportable would be an actual or projected dose at the site boundary of 15 mrem over a 24 hour period. Since there is no projected dose consequence as a result of this event, it is not reportable.

Inspections

NRC Security Inspection

The NRC performed a security inspection of the facility on September 6-8, 2011. As part of the inspection, the following items were reviewed:

- A. RINSC Security Plan**
- B. Security Preparedness Notebook**
- C. Information Events Logbook**
- D. Security Logbook**
- E. Confirmatory Action Letter dated 28 October 2002**

No violations were found, and no inspector follow-up items were opened.

NRC Routine Inspection

The NRC performed a routine inspection of the facility on September 6-8, 2011. As part of the inspection, the following items were reviewed:

- A. Reactor Operations**
- B. Maintenance Program**
- C. Operator Re-Qualification Program**
- D. Emergency Program**
- E. Fuel Movement Operations**

No violations were found. An inspector follow-up item regarding the structural integrity of confinement was opened. This issue is now on the facility projects list.

NRC Special Inspection

The NRC performed a special inspection of the facility on October 26-27, 2011 in response to the unnecessary radiation exposure incident. The results of the inspection are still pending.

Major Facility Repairs

Marley Cooling Tower

The Marley cooling tower gear reducer broke and had to be replaced.

Facility Door Replacement

Most of the facility doors to the exterior were replaced. This includes the roll up door in the basement.

Roof Repair

The basement roof over the offices and machine shop has been leaking. A roofing company was hired to re-seal this roof.

Facility Projects

Teacher Workshop

The RINSC staff has been working with Dr. Tony Nunes, and Kathy and Steve Siok, who are two retired Rhode Island high school science teachers to develop a teacher workshop. We met on 11 July 2011 to discuss our progress. The group has been working on determining:

A. Where to get funding for a workshop

B. What the curriculum should include

C. What types of experiments or projects could be used that the teachers would be able to do in their classrooms

D. How to get accreditation so that the teachers would get continuing education credits for participating in the workshop

The National Science Teacher Association (NSTA) had their regional conference at the Connecticut Convention Center in Hartford, CT during the week of October 24, 2011. On Friday October 28th, the American Nuclear Society (ANS) put on a 75 minute workshop to introduce teachers to nuclear science, and to provide them with ideas for how to demonstrate concepts to high school students. Jeff Davis participated in this workshop in an effort to get a sense of how ANS conducts a nuclear science workshop.

Cooling System Re-Plumbing

The loop #1 cooling system piping that runs between the heat exchanger and the cooling tower was originally routed so that it went through the basement door.

This piping has been re-routed so that it no longer goes through the door, and the doors have been replaced.

Tsunami Preparedness

In response to the events at the Fukushima Power Station after they

were hit by a tsunami, the Commission directed that RINSC staff to consider the vulnerabilities and potential mitigating actions that could be taken if a similar event were to occur here. An analysis has been provided to the Commission as a separate document.

Confinement Structural Integrity

As part of the September 2011 NRC inspection, an issue was raised about the structural integrity of the confinement foundation. This was in response to the fact that the inspectors noticed some cracks in the foundation. This issue was considered in 1989, at which time Metcalf & Eddy performed an analysis and concluded that the facility was structurally sound, and that as long as the rebar in the concrete didn't rust, it would remain sound. At present, there is no indication of rust associated with the foundation cracks, which are all inside the building.

AECOM, which bought out Metcalf & Eddy has been hired at a cost of \$25,000 to do a new analysis.

Special Notes

Mr. Dave Johnson Thank You

The RINSC Staff would like to acknowledge their appreciation for help that Mr. David Johnson has provided since he retired. Mr. Johnson donated his time while helping a URI Physics student with her senior project, which involved characterizing the neutron flux at the window of the Dry Irradiation Room. Mr. Johnson also donated his time while helping a student from Germany continue the characterization work in the Dry Irradiation Room that was done by the URI Physics student.

Enclosure 4

Facility Usage Memo December 2011

- Operations

o Operating Hours

§ 388.15 hours

o Mega-Watt Hours

§ 590.21 MWH

o Runs

§ 110 Runs

o Sample-Hours

§ 2259.2 Hours

- Education

o Elementary/Middle School

Groups below the High School level will get a presentation and a tour; depending on the group they may also perform some experiments. Because of the length of time the CTY group is able to spend at RINSC they perform multiple experiments and receive a presentation on radiation safety.

§ CTY

§ Paul Cuffee School

§ St. Rose of Lima

o High School

High School visits normally include a presentation, tour, and a neutron activation experiment.

§ Narragansett High School

§ North Kingstown High School

§ Coventry High School

§ Bishop Hendricken

o Secondary

College level groups may perform different neutron activation experiments, as well as reactor experiments that look at reactor period, control rod worth, and operations. Some classes will have presentations on radiation safety, health physics, radiation detection, and gamma spectroscopy.

§ URI

- Dr. Nassersharif**
- American Institute of Chemical Engineers**

§ PC

- Dr. Mecca**
- Dr. Breen (Mr.)**

§ RWU

- Dr. Breen (Mrs.)**

§ GSO

- Dr. Nixon**
- Day at the Bay**
- SURFO**
- Costal Resources Center**

§ Three Rivers Community College

§ Brown

- Budget class**
- o Individual Students and Professors**

§ Steve Iannucci – Narragansett Pier Middle School

- 8th Grade Job Shadow**

§ Dr. Nunes

- Connie Hathaway**
- o Neutron Characterization of Dry Irradiation Room**
- Benedikt Groever**
- o Gamma Characterization of Gamma Tube**
- o Neutron Characterization of Dry Irradiation Room**

§ Dr. (Mrs.) Breen

- Mark O'Brien**
- o Heavy Metals in shellfish**
- o Water Salinity from fish bones**

§ Dr. Nassersharif

- Nitinol composition**
- Mech. Engr. Senior Design**
- o Neutron Shielding for Dry Irradiation Room**

§ Dr. Rousseau

- Iron Composition**

§ WPI

- Brendan Walsh**
- o Studying passive safety systems**
- o Other**

§ Rhode Island Facilities Managers

§ Narragansett Fire Department

§ WPRO

§ NPR

§ DEM

- Commercial Users

o BioPal

o Quonset Development Corporation

- Maintenance

o Secondary System # 1

§ Re-piping

o Secondary System #2

§ Gear Reducer Replacement

o Secondary System/Ventilation Display

§ Controlled Environment Structures

§ Touch Screen Controls and Display

§ New Push Button Controls and Display mounts

o Basement Roll-Up Door

§ Replaced, New footing

o Rabbit System

§ Both systems fully operational

o Exterior Doors

§ New doors and closers

- Clean-Up Room

- **South Exit**
- **Double Doors in heat exchanger room**
 - o **Clean-Up Resin**
 - § **Changed filter resin**
 - § **New procedure in progress**
 - o **Mothballed air handling removed**
 - § **Asbestos Removal**
 - § **Confinement room intake**
 - § **Control room air handling**
 - o **Roof Inspection/Repair**
 - o **Crack Inspection**
 - § **Required by NRC**
 - o **Lab Floor**
 - § **Room 317**
 - o **New Locks**
 - § **Labs**
 - § **Front Door Key**
 - o **Control Room Ceiling**
 - § **Fully replaced (In Progress)**
 - § **New Lighting**
 - § **Finished storage area above control room**
 - o **Dry Irradiation Room**
 - § **Scissor Gate**
 - § **Detector and Alarm System**
 - § **New Procedures Approved**
 - o **Building exterior clean-up**

§ Brush and overgrowth

- o Neutron Flux Monitor**

§ Replacement of Test Generator Card

§ Correcting wiring to allow for “Instr Trbl” alarm

- Training

- o Laboratory/Materials Safety – Barbara Ray**
- o Gamma Spectroscopy – Canberra**
- o Seabrook and Millstone Tours**
- o RAM Shipping – Fed Ex**
- o NEUP Grant Seminar, Chicago**
- o National Emergency Training Center (Postponed due to weather)**
- o RI State Police Fusion Center Security Brief**

- Outreach

- o Local Emergency Planning Committee**
 - o Three Rivers Community College – Nuke. Engr. Oversight Board**
 - o Narragansett Pier School Career Day**
 - o South Kingstown High School Career Day**
 - o State High School Science Fair**
 - o High School Teacher Workshop**
 - o American Nuclear Society**
 - o RWU Undergraduate Thesis Committee – Steve**
- § Mark O’Brien**

- Upcoming/Works in Progress

o Lindsey Fields – GSO

§ Gamma sterilization of sediment cores

o Dr. Banish – University of Alabama

§ Production of Sulfur-35

o Further characterization of Dry Irradiation Room

o Furnishing of Room 317 Lab

o Air handling for Control Room

o NEUP Grants

o Intern Manual

§ Hiring Requirements

§ Roles of interns

§ Training Requirements