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UNITED STATES NUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS WASHINGTON, D. C. 20555

February 10, 1977

ACRS Members

MINUTES OF THE MONTAGUE SUBCOMMITTEE MEETING, AUGUST 26-27, 1976

Attached is a certified copy of the subject meeting.

This replaces the "Working Copy" issued on November 19, 1976.

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E. Igne | Staff Engineer

Attachment: As stated.

cc: ACRS Technical Staff

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CERTIFIED FFICIAL USE ONLY. MINUTES OF THE MEETING MONTAGUE SUBCOMMITTEE

MEETING DATE: 8/26-27/76 DATE ISSUED: 2-10-77

MONTAGUE SUBCOMMITTEE UNITS 1 and 2 TURNERS FALLS, MASSACHUSETTS AUGUST 26-27, 1976

The ACRS Subcommittee on the Montague Nuclear Power Station, Units 1 and 2, held a 1-1/2 day meeting on August 26 and 27, 1976 at the Gill-Montague High School in Turners Falls, Massachusetts. The purpose of the meeting was to review the application of the Northeast Nuclear Energy Company for a construction permit for the Montague Nuclear Power Station, Units 1 and 2. Notice of this meeting was published in the Federal Register on Monday, August 9, 1976. A copy is included as Attachment A. The schedule for the meeting is included as Attachment B, and a list of attendees who signed the attendance roll sheet is imcluded as Attachment C. Eighteen oral statements were presented at the meeting. A list of the speakers and a short summary of their presentations are included as Attachment D. Ten written statements were also submitted. Copies of these are included as Attachment E. Copies of the materials distributed at the meeting by the Applicant and the NRC Staff are included as Attachment F.

The Subcommittee Chairman, Mr. John Arnold, convened the meeting at 2:00 p.m., August 26, 1976, with an executive session. Present at this executive session were Mr. Elpidio G. Igne, the designated Federal Employee, Mr. John Arnold, Subcommittee Chairman, Mr. J. Ebersole, Subcommittee Member, Dr. I. Catton, ACRS Consultant, and Dr. S. Philbrick, ACRS Consultant.

Executive Session (Closed) (2:00 p.m. - 2:10 p.m.)

The agenda for the meeting was discussed. It was decided that the agenda would be modified to hear the part of the introductory statement by the Applicant dealing with the site description first and then to proceed to the Nuclear Regulatory Commission's Staff Report on the scope of the NRC review and then to proceed to the presentations on the geology, seismology and hydrology. After this, the rest of the agenda would be

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followed as it appears.

It was additionally decided that time would be allotted for oral presentations by the public starting at approximately 4:00 p.m. on August 26 and continuing through until the close of business, and that as much time as would be possible would be allotted for oral presentations on August 27.

Open Session (2:30 p.m. - until the conclusion of business August 26, 1976)

Introductory Presentation

The Subcommittee Chairman, Mr. John Arnold, convened the public portion of the meeting at 2:30 p.m. on August 26, 1976. Mr. Arnold presented an istroductory statement explaining the purpose of the meeting and the procedures for conducting the meeting and pointed out that the designated federal employee, Mr. E. G. Igne, was in attendance. Mr. Arnold summarized the schedule for the meeting at this time. Mr. Arnold's presentation was interrupted by Ms. Nina Simon of the Alternate Energy Coalition. Ms. Simon indicated that she had a short presentation to give and would only give it at this particular time. She indicated that she felt that if she were not heard the committee would be deprived of the benefit of her opinions and the opinions of the many people of the community which she represented. Ms. Simon was heard at this time. Her presentation is summarized in Appendix D. Mr. Peter Kazinski of the Alternate Energy Coalition also made a short oral presentation at this time. His presentation is also summarized in Appendix D.

Introductory Statement by the Applicant by Bernard Fox, Northeast Utilities Service Company

Mr. Fox presented an overview of the proposed Montague Nuclear Power Station site and construction project. The proposed Montague Station is to be built on a relatively flat section of land known as the

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Montague Plain near the town of Turners Falls and approximately 1-1/2 miles from the Connecticut River. A figure showing the proposed site layout can be found on page 11 of Attachment F. Station cooling water will be taken from the Connecticut River. Mr. Fox indicated that the river flow was sufficient to assure adequate water to the station cooling towers at all times of the year. Good road and railroad facilities are available in the vicinity of the site.

The Applicant has acquired approximately 1900 acres of land for the proposed installation. The proposed site of the plant structure is located on a flat, open area on an outcropping of bedrock. The estimated cumulative population distributions for various distance from the plant are given on page 12 of Attachment F. Lake Pleasant and Green Pond are located to the southeast of the proposed site. Both of these bodies of water are used as local municipal water supply. Mr. Fox indicated that the hydrology of the site was such that contamination of these water supplies through the operation of the plant was highly unlikely.

The Turners Falls municipal airport is located approximately one mile to the north of the proposed site. The airport is operated by the town of Montague through the Montague Airport Commission. The Applicant has maintained surveillance at the airport over a period of approximately two years. Based on this surveillance the Applicant has requested from the town of Montague a limitation on the size of the aricraft that would utilize the airport to a weight not to exceed 15,000 lbs. The Montague Airport Commission has rejected the Applicant's request. The Montague Station is presently designed for an aircraft missile up to 15,000 lbs. Mr. Fox indicated that no aircraft approaching 15,000 lbs had been observed during the utility's surveillance until very recently when a single aircraft weighing approximately 18,500 lbs was moved to the Turners Falls Municipal Airport. Mr. Fox indicated that the NRC had concluded that a aircraft crash probability of 10⁻⁷ per year for aircraft in excess of

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15,000 lbs would require less than 100 aricraft movements per year of aircraft in excess of 15,000 lbs.

A nuclear steam supply system identical to that used in the General Electric Company GESSAR-238 nuclear island design would be used at the Montague Station. Two units, each with a rating of 3,579 MW(t) would be used. The balance of the plant would be designed by the utility and its' consultants. The containment will be a Mark III type and will be designed by Stone and Webster. A peninsular arrangement will be used for the steam turbines to minimize the risk associated with a postulated missile generated by the steam turbine. The Montague nuclear island takes advantage of some of the conceptual approaches used in the STRIDE package. There will, however, be some differences. The containment will be somewhat larger than what is used in the STRIDE design. A schematic of the plant layout is shown on page 13 of Attachment F.

Mr. Fox was questioned after his presentation as to what the utility planned to do if the actual population increases in the area exceeded the Applicant projections. Mr. Fox indicated that the Applicant believed that the low as reasonably achievable basis (ALARA) of the design would provide sufficient margin during routine operation for larger increases in the population even when Greenfield and Montague were considered together as the nearest center of population. He also indicated that the utility believed that emergency planning for larger population densities could be accommodated within the scope of the present plan.

Nuclear Regulatory Commission Staff Report - Mr. R. Poweil, USNRC

Mr. Powell gave a brief description of the status and scope of the NRC's review on the nuclear power station. Mr. Powell indicated that the Montague application was reviewed in accordance with NRC's custom design review plan and that the General Electric Standard Safety Analysis Report for the BWR-6 was undergoing a concurrent review by the Staff. He



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indicated that during the review of the Montague application the Applicant informed the NRC that there would be a five year slippage in the projected schedule for the commercial operations of Units 1 and 2 and that this would result in projected dates for commercial operation of April, 1986 and January, 1988 respectively. These projected operational dates would require a start of construction during 1979-1980. The Applicant had indicated that this five year slip in their schedule was a result of a reappraisal of their capital construction program.

The NRC will, approximately one year prior to the date that a construction permit would be needed, initiate an update review of the Montague facility to assure that any new or generic matter which has safety significance is considered in the Montague Station design. The NRC has documented the results of their review to date and has requested that the Advisory Committee on Reactor Safeguards consider issuing an interim letter on the Montague Station for the purpose of documenting the status of the application.

The Safety Evaluation Report for the Montague Nuclear Power Station, Units 1 and 2, dated July, 1976, describes the status of the Staff's review. The Staff's review was done in accordance with the Standard Review Plan. The NRC will issue a final environmental statement which will address the environmental impact of the proposed plant. The NRC Safety Evaluation Report has identified five outstanding items, they are:

 Evaluation of the Applicants financial qualifications - The NRC intends to complete this evaluation in their update review.

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- 2. Completion of the NRC's Office of Inspection and Enforcement's review of the implementation of the Applicant's Quality Assurance program - This review will be conducted when the Applicant reinitiates the design and procurement of the equipment for the Montague facility.
- 3. Completion of the NRC's evaluation of the anticipated transients without scram for the Montague facility-This item is being resolved for all reactors on a generic basis. The Applicant has been requested to provide by June 30, 1977 the analysis justification ,and any modifications necessary to meet the requirements of the NRC ATWS Status Report dated Dec. 9, 1975.
- 4. Completion of the NRC's evaluation of the emergency plan for the Montague Station The Applicant has not yet developed procedures for interfacing with the Massachusetts Dept. of Public Health. It is expected that these will be completed before the update review. The Staff will complete its' review of this matter in the update review.
- 5. Completion of the NRC Staff review of the reactor vessel shield wall and reactor vessel supports - The Applicants have described the methods and the analysis which will be used to determine the loads with the shield wall and the vessel supports will be designed. The NRC Staff will complete their review of this item prior to the issuance of a construction permit for the Montague facility.

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In addition, 12 outstanding items have been identified for the GESSAR-238 design which would also apply to the proposed Montague Station. Mr. Powell indicated that these items were identified in Section 1.8 of the SER for the Montague Station. Mr. Powell was asked as to what significant differences there were between the nuclear steam supply system for the Montague unit and the standard reference GESSAR-238 design nuclear steam supply system. Mr. Powell indicated that there were none.

Mr. Powell was asked as to the basis for the NRC's conclusions on the age of the last movements of the faults in the area. Dr. Jackson of the NRC Staff responded that age dating of material found in the faults was used. He indicated that they had also used core borings and the general regional mapping in forming this conclusion.

Mr. Powell was also asked how more advanced safety features developed by General Electric by the time of the updated review would be treated in the updated review. Mr. Powell indicated that they would be considered in the updated review. He indicated that improved designs which resulted in a significant increase in safety would have to be considered by the Applicant and that the design of the Montague plant was not to be considered fixed at this stage of the review. Mr. Steven Varga of the NRC Staff indicated that the NRC's policy at this time was to hold the design on standard plants fixed for approximately two years to receive the benefits of standardization and that safety improvements in the design would be updated on that time basis. He indicated that although the Applicant had not subscribed formally to a standardized nuclear island design, he had accepted all parts of it that were important in terms of safety. He indicated that whatever safety improvements had been made in the standardized nuclear island design would at the time of the updating of the Montague review would be viewed as requirements for the Montague facility. The Applicant indicated that he saw no reason, considering the present design status, that would indicate that this could not be accomplished.

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Technical Presentations by the Applicant - Geology and Seismology, E. Washer, Stone and Webster Engineering Corporation

Mr. Washer discussed the geology and seismology of the Montague site and the surrounding region. He indicated that these matters were addressed in detail in the Montague PSAR and that Stone and Webster had concluded from their studies that there were no geological hazards which could adversely affect the plant in a significant fashion. Mr. Washer indicated that these studies that had been done had been directed into four major areas. These were the geology and engineering properties of the soil and rock at the plant foundation, the detailed geology of the site area, the geology and tectonics of the site region, and the seismicity of the site region.

Mr. Washer indicated that the site area was located near the northern end of what is known as the Connecticut Valley Triassic Basin. Rocks within this basin are primarily silt stone, sand stones and conglomerates of the late Triassic and early Jurassic Ages. He indicated that 135 test borings had been made at the site to a maximum depth of 350 ft. The locations of these borings are shown on pages 18 and 19 of Attachment F. The plant will be sited on the bedrock outcropping and Willis Hill. He indicated that the bedrock here was of high quality foundation material and that it was strong, unfaulted and essentially unweathered. All of the studies which have been performed have indicated that the rock would be very suitable for a foundation.

The classical interpretation of the Connecticut Valley Triassic Basin considers the basin to be a half-graben bounded on the east by a major normal fault, the Triassic Border Fault. In this model the Mesozoic sediments to the west of the fault are in fault-contact with the crystal and rock structures to the east. Another interpretation of this structure



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proposes that a basin-forming-fault exists beneath the Connecticut Valley Triassic Basin and that the eastern border of the basin is a nonconformity.

Detailed field mappings were performed within this basin. A total of 28 core borings were performed to a maximum depth of 750 ft and the rock samples were analyzed and dated. Mr. Washer indicated that these studies have produced a very large quantity of new data and that Stone and Webster was able to develop very detailed geological and cross sectional maps of the eastern border zone. Gravity maps were also made in the basin. Stone and Webster felt that their studies supported the model of the basin-forming-fault. He indicated that no surface evidence of such a fault has been found and that Stone and Webster had concluded that if such a fault does exist it had ceased activity prior to the lithification of the Mesozoic settlements. He indicated that the youngest small faults in the area had been correlated with structures older than 140 million years, and that Stone and Webster had concluded that there were no capable faults in the area. Mr. Washer indicated that he believed that a safe shut down earthquake design value of .2g was a very conservative design base.

Continuation of the Introductory Remarks of the Applicant - B. Fox, Northeast Utilities Company

Mr. Fox gave a description of the organizational structure of Northeast Utilities. Northeast Utilities is the electric utility holding company organized under the Electric Utility Holding Company Act. A simplified organizational chart is shown on page 29 of Attachment F. Northeast Nuclear Energy Company is part of the Northeast Utilities organizational structure. Northeast Nuclear Energy Company is responsible for the



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operation and construction of the nuclear units for which the Northeast Utilities Company owns a majority share. Northeast Nuclear Energy Company operates the existing nuclear units, Millstone Point Unit 1 and Millstone Point Unit 2, and is currently constructing Millstone Unit 3.

Mr. Fox was questioned as to the amount of effort that Northeast Utilities devotes to the assessment of the adequacy of systems pruchased from other manufactures such as the nuclear steam supply system, which is purchased from General Electric. Mr. Fox indicated that Northeast Utilities maintains a nuclear review board which meets regularly and that review efforts were carried out in other parts of the project. He indicated that Northeast Utilities involvement in the operation of the Connecticut-Yankee and the Millstone Units 1 and 2 provides the utility with nuclear operating experience. Mr. Fox indicated that Northeast Utilities maintains a licensing staff, which keeps abreast of recent developments in the nuclear industry. Mr. Fox indicated that there were also 12 individuals on the Stone and Webster staff who are under contract to Northeast Utilities and that their assignment was to follow the development of the Montague plant.

A question was raised as to the reliability of two-track service systems in the likelihood of the failure of one system while the other system was down for maintenance or repair. Mr. Fox indicated that the reliability groups at Northeast Utilities has not yet looked at the problem. The opinion was expressed that one should look beyond the single failure criteria in the context in the reliability analysis for these plants. Mr. Mihal of Northeast Utilities indicated that he felt that this was a worthwhile effort. He indicated that there was an increasing effort on the part of the Northeast Utilities staff to put more emphasis on the analysis of the multiple failure in shutdown systems which are used many times a year as opposed to the current emphasis on the analysis highly unlikely accidents caused by a single failure.

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Mr. Fox gave a brief description of the plant layout (page 13, Attachment F). He indicated that for the two units all structures of significance other than the radwaste building and certain administrative buildings will be slide along duplicates rather than mirror images of one another. The solid radwaste treatment systems will be combined for Units 1 and 2 in the Unit 1 radwaste building. He indicated that the conceptual layout for the Montague plant was reviewed by Northeast Utilities plant personnel who had actual operating experience in nuclear power stations.

Applicant Responses to the NRC Staff Report - B. Fox, Northeast Utilities

Mr. Fox indicated that although the engineering staff on the Montague project was reduced when the decision was made to delay the construction of the Montague Station that a project engineering staff was maintained at Stone and Webster and Northeast Utilities to support the licensing effort and work with NRC in obtaining the resolution to the items identified by the NRC Staff.

Mr. Fox indicated that he felt that the outstanding items requiring resolution would fall into three broad categories. The first of these would be the open items associated with the GESSAR docket. Mr. Fox indicated that it was his understanding that these items had either been resolved or were close to resolution. The second of these categories included the three additional items identified in the Montague SER which were not outstanding items related to the GESSAR docket. The first of these was the ATWS item. He indicated that Northeast Utilities had been directed by the NRC Staff to provide to NRC an analysis of ATWS and any modifications necessary to meet the requirements of the NRC Staff's ATWS Status Report of December 9, 1975, and a justification of Northeast Utilities position by June 30, 1977. The second item has to do with the evaluation of the reactor vessel shield wall and the reactor vessel support. The Applicants have described to NRC the techniques which are expected to be used in determining the loads which would be used for designing the reactor shield wall and supports.

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The NRC has indicated that these techniques are acceptable and that the implementation of these techniques and the final resolution of these loads must be completed prior to the NRC update review and the issuance of a construction permit. The third item was the final formulation of the emergency plan for the Montague plant. Mr. Fox indicated that the Commonwealth of Massachusetts is presently finalizing its own overall emergency plan for all types of emergencies, conventional and nuclear, and is working on radiological emergency plans as part of this effort. The Commonwealth of Massachusetts has indicated to Northeast Utilities that it will undertake the necessary work for the Montague project at a future date and is currently concentrating its efforts on the updating of the emergency plans for the two existing nuclear power stations in Massachusetts (Pilgrim and Yankee-Rowe).

The third category of items are the new generic issues which may arise between the present time and the time in which the plant update review will be done. The NRC position on fire protection systems which has been developed since the reduction of the engineering and design efforts for the Montague plant is an example of this. Mr. Fox indicated that if it is concluded that changes are necessary to address items such as these which will result in significant improvements in plant safety, that Northeast Utilities would expect to make such changes as part of the NRC update review. The Applicant indicated that he saw no reason, considering the present design status, that would indicate that this could not be accomplished.

Mr. Fox also indicated that the introduction of the aircraft larger than 15,000 lbs at the Montague airport would also have to be addressed in this update review.

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Mr. Fox was questioned as to when Northeast Utilities would reestablish its full engineering effort on the Montague Plant. Mr. Fox indicated that this date would be difficult to establish, but that Northeast Utilities expected that the update review would not have started until the outstanding issues with the NRC had been resolved.

Mr. Fox was questioned as to the resolution of the issue of aircraft in excess of 15,000 lbs at the Turners Falls airport. Mr. Fox indicated that there were at least two solutions. One of which was the willingness on the part of the Turners Falls Airport Commission to agree to establish a 15,000 lbs limit on aircraft allowed at the airport. The other was to design for aircraft in excess of 15,000 lbs.

The August 26 portion of the meeting was adjourned at 5:35 p.m., to be reconvened at 8:30 a.m. on August 27, 1976.

AUGUST 27, 1976 SESSION

Technical Presentations by the Applicant - Interfaces Between the GESSAR-238 and the Balance of Plant - John Fletcher, Stone & Webster Engineering Corporation

Mr. Fletcher indicated that the Applicants have purchased a standard BWR-6 nuclear steam supply system from the General Electric Company and have contracted for the required balance of plant and related interfaces with the Stone and Webster Engineering Corporation. Mr. Fletcher indicated that the Applicants had clearly indicated those sections of their application which were totally within the GE scope of supply. He noted that in the PSAR that those sections dealing with



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items within the GE scope of supply had been printed on blue paper, whereas all other pages in the SER had been printed on white paper. He noted that the contractual arrangements with GE did not extend to the nuclear island portion of the GESSAR system (GE STRIDE system). He further indicated that the Applicants interface arrangements with GE were reviewed by NRC in audits prior to the start of production engineering and that these audits did not result in any deficiencies being found in pertinent procedures.

Under the Applicants contract arrangements with GE, Northeast Utilities Company and Stone & Webster received from GE all purchase specifications, design specifications, interface documents, and any other software materials which have any bearing on interfaces between the Applicants scope of the work and the GE purchased items. GE also receives documents in the Applicants scope of supply which concern information that interfaces with the nuclear steam supply system. He noted that these procedures are similar to those which have been used by Stone & Webster on other nuclear plant construction projects and that Stone & Webster is active on other BWR construction projects. He indicated that design reviews at one organization which deal with items under the scope of supply of the other organization are part of the routine engineering process. Mr. Fletcher indicated that Northeast Utilities does attempt to tailor the equipment and systems to General Electric supplies as per their own experience where individual components are involved. For instance, if Northeast Utilities had experienced problems with a particular suppliers valve they would request that GE not supply any of those valves in their system. He noted that Northeast Utilities contract with GE gives Northeast Utilities the right to reject particular suppliers of GE components, it does not give Northeast Utilities the contractural right to require design changes in GE's system.

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Mechanisms for the Implementation of the Solutions to Generic Issues Into the Plant Design - H. Nims, Northeast Utilities Service Company

Mr. Nims indicated that the design for the Mcntague plant had not frozen and that the implementation of solutions to generic issues that were resolved prior to the completion of the final design could be incorporated into the final design. It is expected that solutions to the generic issues identified in the NRC Staff SER will have been found by this time. Mr. Varga of the NRC Staff stated that issues that arose between now and the Staff update review would be addressed in the updated review.

Description of the ECCS and LOCA ECCS Analysis - Richard Panek, General Electric Company; William Mihal, Northeast Utilities Service Company; Robert Falciani, Stone & Webster Corporation

Mr. Panek indicated that since the ECCS rule-making hearings and the subsequent issuance of the final acceptance criteria for ECCS in Appendix K of 10CFR50, the General Electric Company had conducted a extensive program to show that all boiling water reactors met the final acceptance criteria of Appendix K. General Electric Company is also conducting programs for the purpose of developing improvements in ECCS capability. Examples of this are the confirmatory tests which are being conducted to verify core spray distribution and heat transfer effectiveness, analysis model improvement programs, and developmental testing directed towards identifying potential improvements.

Mr. Panek indicated that the ECCS equipment on the Montague Plant was identical to the ECCS equipment used in other similar size BWR plants. The arrangement of the ECCS equipment in the Montague plant



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is identical to the arrangement used in the GE standard plant.

Mr. Panek was asked a number of specific questions on the GE heat transfering experiments and analysis models. The GE personnel familiar with this material were not at the subcommittee meeting. These questions were deferred to the ACRS Full Committee Meeting.

Mr. Panek was questioned as to what specific improvements in the ECCS GE might be contemplating. Mr. Panek indicated that General Electric is constantly trying to improve its ECC systems but did not know of any specific improvements which he could describe to the subcommittee.

Mr. Panek was asked as to whether GE had examined the consequences of inadvertent application of the high pressure core injection system in the context of void collapse and thermal shock. Mr. Mihal indicated that GE had looked at this problem and that the results had been reported in the GESSAR document.

Questions were also raised as to whether mechanical deformation of the core structures could prevent rod insertion during a LOCA and as to whether impinging steam from a postulated LOCA could damage the control rod drive and exhaust tubes which carry out the hydraulic functions of rod insertion. Answers were not obtained at this time and the questions were deferred to some later date.

A question as to how the Applicant was going to go about calculating the forces acting on the reactor internals during a LOCA blowdown was raised. Mr. Panek indicated that they were currently using the WHAM code and that they had received questions from the Staff directing them to address this problem. An opinion was expressed that the WHAM

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code did not provide a very accurate way of calculating these forces. This is a problem which is a generic one for BWRs and is being addressed by the NRC Staff.

MARK III Containment System - William Mihal, Northeast Utilities Service Company

Mr. Mihal described the key features of the containment system for Montague along with its similarities and differences from other MARK III designs. A reinforced concrete drywell encloses the reactor vessel and a freestanding steel containment. The suppression pool is installed in the annular region between the drywell and the freestanding steel shell. The drywell and the containment volumes are connected with a suppression pool by horizontal vents into the drywell wall. The containment and drywell pressure responses for the Montague Plant were calculated by Stone & Webster using their LOCTVS code. This code was first developed and utilized on the Shoreham Plant. It was later modified and used on the River Bend project. The NRC Staff and General Electric have both confirmed the results of the LOCTVS code. The code has additionally been used to successfully predict the test results from the Bodega Bay and Humbolt Bay experiments. The concrete shield building encloses the freestanding steel containment and provides a volume to facilitate the collection, holdup, and filtration of any radioactive leakage from the containment. It also provides a missile barrier to protect the containment and the equipment within. The drywell is designed to withstand the maximum pressure differentials which would occur during a LOCA and is designed to withstand a 0.6 psi pressure differential outward. The Montague facility will have a larger containment than that proposed for the General Electric standard plant. This reflects the Applicants desire to allow increased space for the

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equipment contained within the containment. The Applicant's experience indicates that this facilitates maintenance and inservice inspection and reduces downtime and occupational exposures. The larger containment also results in lower peak loads during the postulated LOCA. A greater number of vents and a lower vent submergence will be used in Montaque design than in the GESSAR standard plant. General Electric has performed an independent analysis of the Montague containment using their own codes and has verified the conservatism of the Montague design.

The question was raised as to whether Stone and Webster had conducted independent experimental work to validate their model. Mr. Falciani indicated that they had not but that they had used GE's experimental data and the results of calculations done with GE's models. The question was asked as to whether there were any unresolved questions regarding the scaling used in the GE experiments. Mr. William Kane of the NRC Staff responded that there were not and that the validity of the GE scaling was accepted by the NRC.

Robert Falciani of the Stone & Webster Engineering Company discussed the status of the ongoing efforts related to the hydronamic loading conditions in the MARK III pressure suppression containment following a postulated LOCA or safety relief valve discharge. He indicated that the Applicants have committed to adopt the final hydrodynamic LOCA loading specifications as resolved on the GESSAR docket with significant variations in the Montague design being treated separately. The quencher design being developed by GE will be incorporated into the Montague containment design if it is shown to substantially reduce the safety relief valve discharge loads.

Hydrogen recombiner's with a controlled backup purge system will be provided.

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Plant Fire Protection Design Features - Leslie Davison, Northeast Utilities Service Company

Mr. Davison indicated that at the time that production engineering was suspended on the Montague process (early 1975) the design of the fire protection system was generally in compliance with all NRC requirements and industry standards. Since that time there have been significant changes in the regulatory requirements for fire protection systems. Northeast Utilities has already committed to comply with a number of these requirements in the Montague PSAR. Examples of these are:

- I. Extensive use of water sprinkler systems to combat potential fires in high density cable areas.
 - A high degree of physical separation of redundant safeguard equipment.
 - 3. Extensive use of cables manufactured in accordance with IEEE 383 which require that the cables be constructed of materials that are fire retardent and non-propagating.
 - 4. All fire protection piping containing water in the vicinity of safety-related equipment will be analyzed to assure that allowable stresses are not exceeded during a seismic event. Dry piping will be anchored to the seismically analyzed supports.

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 The use of plant ventilation systems where appropriate to assist in containing fires and removing the products of combustion.

Mr. Davison indicated that it was the Applicant's intent to review at the time when production engineering is resumed all current fire protection design regulatory requirements and to make appropriate revisions to the plant design.

Mr. Davison was asked as to whether his plant incorporated single cable tunnels that contained redundant cabling critical to the safe shutdown of the plant. Mr. Davison indicated that at this time it did, but that they intended to review this when they reinitiated the design for the plant. Mr. Davison was also asked as to if they intended to use ground fault relays in their systems to reduce the possibility of fire. Mr. Davison indicated that the design did not include such features at this time and that they have not considered it at this time. Mr. Davison was also asked the question as to how the 480 volt shutdown distribution board was protected in the event of the possible explosion or diesel rot away. Mr. Mooney of Stone and Webster indicated that the diesels were physically isolated from the 480 volt board. Mr. Davison was also questioned as to what type of fire protection systems were used in the battery room. Mr. Davison indicated that at this time that the designs specified only portable fire extinguishers of the chemical type, but that the fire protection design would be reevaluated in light of the new proposed regulatory guides. Mr. Davison also indicated that Stone and Webster considered water to be an acceptable fire extinguishing agent on the cable systems that they intend to install at Montague. Mr. Davison indicated that a remote shutdown board was provided in the

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event that it was necessary to evacuate the control room. Control to the remote shutdown board will be provided by transfer switches.

Ultimate Heat Sink - Mr. Mihal, Northeast Utilities Service Company

Mr. Mihal gave a brief description of the ultimate heat sink. He indicated that the Montague plant does not utilize the Connecticut River as a source of emergency power, but does use river water to provide normal makeup water to the cooling towers. This is done via a 1.5 mile pipeline to the plant intake structure. The structure is not Category 1. Emergency water is supplied from separate water storage tanks which are part of the ultimate heat sink. The two standby coolant towers which are used for the ultimate heat sink together with the storage basins are capable of operating for a 30-day period without the need for makeup water. Each cooling tower has a 100% capacity for the two unit heat load. The standby cooling towers and basins are Seismic Category I and are sited on bedrock. Four 50% capacity pumps are provided for each tower. It was noted that the water storage basins were sited such that most of the water stored in the basins were stored above grade. The only flammable components in the towers are the draft eliminators. These are treated as to be fire retardant. In the event of the loss of both coolant towers normal service water could still satisfy all of the plant requirements. The towers are located within the normally secured area of the plant.

Alara Evaluation - Reginald Rodgers, Northeast Utilities Service Company

Dr. Rogers indicated that the Northeast Nuclear Energy Company has a well demonstrated commitment to maintain offsite dosage for radioactive

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effluence as low as is reasonably achievable. He indicated that the Montague Station has, in addition to the usual radiation waste treatment equipment, certain design features that are exclusively for keeping the releases as low as reasonably achievable. He indicated that the radioactive liquid waste treatment is designed with a high process flow capability and has vault storage capabilities equivalent to four times the effect of daily volume of system effluents from both units. He indicated that it is expected that about 90% of that process liquid treated with this system will be recycled. He indicated that the condenser off gas system will reduce the release rate of gas use activity from the steam jet air ejectors to less than 1/10% of the release rate that would result from a 30 minute hold up system. With regard to other potential release paths he indicated that some design features had been provided to reduce the magnitude of activity release by way of these paths. These are:

- Clean steam will be provided for the turbine gland cooling system.
- 2. Containment exhaust air will be treated by charcoal filters.
- 3. Tanks and sumps in the radwaste building will be vented through charcoal filters.
- Leak collection will be provided for all steam valves 2-1/2 inch or larger in the turbine building.

The Applicant intends to perform a reevaluation of the plant using the recently issued Appendix I codes prior to the completion of the Staff's updated review on the Montague Plant. Mr. Mihal indicated that adequate administrative control procedures would be established for the Montague Units 1 and 2 to assure that occupational exposures would also be kept

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as low as is reasonably achievable. He indicated that the Applicant's experience at Millstone Units 1 and 2 and Connecticute Yankee and the exposure histories for other operating plants have been factored into the design of the Montague Station. He indicated that their estimates showed exposures between 500 and 1000 man rem per unit and that about 30% of this would be exposure to plant personnel with the rest being received by outside contractors. The majority of this exposure was associated with maintenance and surveillance.

A number of features have been incorporated into the design of the plant to reduce occupational exposures. Reactor vessel inservice in**spec**tion will be automated to the greatest extent practical and remote handling equipment will be utilized to reduce the potential for radiation exposure.

Mr. Robert Vanasse, Stone and Webster Engineering Corporation, discussed some of the specifics of the Montague design with regard to the lowering of exposure. He indicated that the facilities for inservice protection and solid radwaste handling has been automated to the extent practical. He noted that certain filters in the hydraulic system were shielded in the Montague Plant design because it had been noted in Millstone 1 that unnecessary exposures were resulting from the accumulation of radioactive material in these filters. There have been a number of studies directed toward reducing the quantities of crud which were accumulating in the system. He indicated that connectors would be installed for flushing or chemical cleaning systems. The Applicant has made sufficient efforts in the design of the plant to shorten the time of maintenance activities and to distribute areas of high exposure to reduce the exposure to maintenance personnel. The Applicant stated that his predictions for reduced exposure are based on operating experience from earlier NE plants and that he had no criteria which would allow him to predict form design changes, anticipated benefits.



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Missile Barrier Design - Mr. Fletcher, Stone & Webster Engineering Corporation

Mr. Fletcher indicated that the Montague Station was designed for a range of design base missiles in accordance with the current NRC criteria. A peninsular arrangement of the turbines will be used to minimize the effects of turbine missiles on safety-related structures. Over speed controls are utilized on turbine machinery. Montague, in addition, is designed for an aircraft missile of 15,000 lbs. He indicated that a study done for the Turners Falls Municipal Airport by a consulting firm had recently been released in draft form. This study indicates that the town planners for the airport do not expect utilization by aircraft exceeding the 15,000 lb size. He indicated that the Applicant had proposed to the Airport Commission that a 15,000 lb size limit be placed on the use of the airport. Their request was not accepted, but the Airport Commission did indicate that the matter was still open for discussion. He indicated that there are a number of plants that are designed for aircraft missiles larger than this and that designing the plant for larger missiles was a question of economics rather than feasibility. A dual backup air intake system is used for the control room. This system has the capability to totally isolate the control room from all external flow including burning gas leak from a fueled aircraft. He indicated that the bases for the turbine missile design was the failure of the turbine in an overspeed condition (180% normal speed).

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Status of Plant Improvements to Reduce Stress Corrosion Cracking -Eric DeBarba, General Electric Company

Mr. DeBarba indicated that the occurrence of innergranular stress corrosion cracking in BWR plants was rare (76 occurrences out of 17,000 austenitic stainless steel piping wells over a cumulative 200 reactor years of experience). He indicated that numerous efforts were presently underway to pinpoint the cause of the problem and to identify solutions. It has been concluded that the most probable cause of the observed cracking is a combination of many factors. These factors include a combination of operating environments, stresses, and sensitization. With regard to the coclant environment it is believed that stress corrosion cracking can be associated with the oxygen level of the coolant associated with plant startup. A number of solutions are being considered to assure that BWR primary water systems can be made more immune to this phenomena. These include design modifications such as the elimination or rerouting of certain line and revised welding procedures.

The Committee pointed out that proposals had been made to eliminate certain lines which provided pressure relief protection in the event of certain types of overpressurization. Mr. Fox indicated that the Applicant has not committed to making that change.

Dr. Gordon commented on some of the BWR-6 design changes that had been made to medigate the stress corrosion cracking problems. Dr. Gordon indicated that the cracking phenomena appears to be limited to pipe

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sizes 10 inches and under. It has been more prevalent in the 3 types of piping lines. These are the recirculation by-pass line, the core spray line, and control rod drive hydraulic line. He indicated that it has been recommended that the recirculation by-pass line be removed. The core spray lines and the control rod drive hydraulic line will be made of carbon steel. The control rod drive hydraulic line is also being rerouted to reduce the thermal stresses which were the driving force for the stress corrosion.

In addition, welding procedures have been changed for very large recirculation piping. There has been no experience with stress corrosion cracking. These lines are being solution heat treated after welding wherever possible. Test data has demonstrated that solution heat treating following welding results in a weld that is immune to stress corrosion. Very small piping is being changed to 316L stainless steel, which does not appear to undergo stress corrosion cracking. In addition, all the larger piping wells are being analyzed to assure that the conditions under which stress corrosion cracking has been observed do not exist. Grinding controls on pipe welds are also being implemented. The source of the cooling water for the control rod drive system has been changed such as to preclude sources of water with objectionable concentrations of oxygen.

Emergency Planning - E. J. Ferland, Northeast Utilities Service Company

Mr. Ferland indicated that the Montague emergency plan will provide for both onsite and offsite emergencies and will benefit from the work and experience that has been obtained with the established emergency procedures for Northeast Utilities other operating power stations. He indicated that the procedures provide guidance and corrective

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action required to minimize the effects of a possible onsite radiological emergency. He indicated that the Applicant has made arrangements with Franklin County Public Hospital in Greenfield and Farren Memorial Hospital in Montague to accept patients as might be required. They have also contracted with the Radiation Management Corporation and the University of Pennsylvania Hospital for special services that might be required. These services include a 24 hour availability of a medical doctor knowledgeable in the treatment of radiation injuries, the availability of emergency transportation by air and the availability of numerous methods of special medical treatment. He also indicated that the Applicant has met with local and state agencies on this subject since early in 1975. The Applicant is currently awaiting the completion of Massachusetts'overall emergency plan. It is expected that their plans for coordination with the State of Massachusetts in the event of an emergency can be established when this plan is complete. He indicated that detailed plans and the time required to evacuate residents from areas adjacent to the plant cannot be developed until this time.

Hydrology - M. Monn, Stone & Webster Engineering Corporation

Mr. Monn summarized the significant hydrological features of the site. These are shown on Figure 89 of Attachment F. He indicated that the nearest major body of water to the Montague site was the Connecticut River which is approximately 1-1/2 miles from the site. There were two tributaries of the Connecticut River in the site vicinity. These are the Millers and Deerfield Rivers. Two small lakes, Lake Pleasant and Green Pond are about 1 mile to the southeast of the site and serve as public water supplies. There are also several ground water acquifiers in the vicinity of the site which have been developed both for private and public water supplies. The safety evaluation of the site has

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consisted of analysis of the flooding potential of the Connecticut River, the capability of site drainage facilities to prevent flooding of safety-related buildings during extreme rainfall events, and the effects of postulated spills of radioactive liquid. He indicated that the site was located more than 150 feet above the normal river elevation of the Turners Falls hydroelectric project and over 200 feet above the normal river elevation below the project. The estimated probable maximum flood level is about 150 feet below the site grade elevation. The site is also sufficiently high to protect it in the event of a failure of an upstream dam or flooding due to ice blockages. The site area itself will be protected from the accumulation of standing water resulting from severe rainfall by the proper sloping of open areas in the installation of adequate drainage facilities. The site storm drain system empties into a pond on the Montague Plain and from there the water will infiltrate into the ground water table. There will be no discharge of radioactive liquids into the ground water through normal plant operation and floor drains in any building which contains or has the potential of containing radioactive liquids are connected to the liquid radwaste system. The administrative and equipment controls will make an accidental spill of radioactive substances on to the ground unlikely. Ground water levels and the physical and chemical parameters of the ground water will be monitored during the preoperational and operational stages of the plant.

A question was asked as to how long it would take for contamination from the postulated spills to reach the nearest source of use. Mr. Varga indicated that the NRC Staff had been analyzing this question and had concluded that in the worse case accident with the existing ground water movements, the transient time of about 20 years with an effective dilution factor of about 3,000 would occur.

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General Discussion

The criteria of high energy pipe failure was discussed. Mr. DeBarba indicated that the Applicant would do their analysis under the premise that the pipes could fail anywhere and would design such that the appropriate protection was achieved.

The fire protection system was also discussed. Mr. Davison indicated that the water piping system was not seismically qualified, but that this would be reviewed in the future. With regard to the use of carbon dioxide and water extinguishing agents on cables, Mr. Davison indicated that carbon dioxide was used as a primary agent and that water was used as a backup.

Mr. Davison indicated that the utility had not run a dynamic analysis of the failure of the feedwater line immediately upstream of the feedwater intake valves to account for the impact loading of these valves. He indicated that Stone and Webster had not yet reached that point in their design of the system.

The subject of the protection of one main steam isolation valve against damage in the event of a failure of another was discussed. The Applicant indicated that their system was designed such that the valves were protected. The Subcommittee indicated that they would like to have assurance that this protection was indeed effective.

The methods by which the architect-engineer would communicate to the owneroperator the particular operating requirements of the plant were discussed. Mr. Ferland indicated that it was the practice of the Northeast Nuclear Energy Company to perform with their own people the preoperational test program and the start of the test program for each of their nuclear units and that Stone and Webster would supply detailed system descriptions. A question was asked as to whether these system design descriptions would



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communicate to the operator the degree of redundancy of circuit configurations. Mr. Ferland indicated that the operators training would include training of this area to the extent that the operators would have knowledge of cable groupings.

Executive Session (3:00 p.m. - 3:15 p.m.)

The Committee discussed the information that had been heard on the Montague Plant and concluded that they could recommend the review of the Montague Units 1 and 2 at the next Full Committee meeting. The agenda for such a meeting was discussed. It was agreed that the Applicants presentation should include a plant description of a site description and some discussion of the organizations involved in the project and the status of the project. It was felt that the Applicant should be prepared to discuss the GESSAR research and development programs and the GESSAR generic items. The Subcommittee also felt that the Applicant should be prepared to discuss their ALARA programs and their experience in achieving those reductions in operating reactors. The Applicant's ALARA assessments and the reliability of these assessments should also be discussed.

Closing Session

The Subcommittee met briefly with the Applicant and informed them that they would recommend the review of Montague Units 1 and 2 at the next meeting of the Full ACRS Committee. The Applicant was informed as to what would be expected in the way of presentations and the meeting was closed.

Additional details of the open portion of this meeting are available in a transcript which is in the NRC Public Document Room, 1717 H Street, N.W., Washington, DC. The transcript can also be purchased from Ace Federal Reporters, Inc., 415 Second Street, N.E., Washington, DC.



33312

(Docket No. 1. 550 A)

COMMONWEALTH EDISON CO., ET AL.

Receipt of Attorney General's Advice and Time for Eding of Petitions To Interveno on Antifrust Matters

The Commission has received, puratant to section 195c, of the Atomic Energy Act of 1954, as amended, a letter of advice from the Attorney General of the United States, dated July 28, 1976, a copy of which is attached as Appendix "A".

Any person whose interest may be affected by this proceeding may, pursuant to \$2.714 of the Commission's rules of practice, 10 CFR Part 2, file a petition for leave to intervene and request a hearing on the antitrust aspects of the application, Petitions for feave to interveloc and reducts for hearing shall be filed by September 8, 1976, either (1) by delivery to the NRC Docketing and Service Section at 1717 If Street NW., Washington, D.C., or (3) by mail or telegram addressed to the Secretary, Nuclear Regulatory Commission, Washington, D.C. 20555, ATTN: Docketing and Service Section.

For the Nuclear Regulatory Commission.

JEROME SALTZMAN, Chief, Antitrust and Indemnity Group, Nuclear Reactor Regutation.

APTENDIX "A"-CARROLL COUNTY STATION UNERS I & 2. COMMONWEALTH EDISON COM-PANY, INTERSTATE POWER COMPANY, AND HOWAY INTERSTATE POWER COMPANY; NRC DOCUMENO, P-559-A

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JULY 28, 1976.

You have requested our advice pursuant to Section 105c of the Atomic Energy Act of 1954, as smerried, regarding the above-captioned application.

INTRODUCTION

This is an application to construct two 1120 MW nuclear units at a site in Carroll County, Himois. The units are to be owned approximately the first unit is expected to begin operation in 1994, the second in 1985. Under the agreement, Interstate Power Company will own an 18¹⁴, percent undi ided interest. Jowa-Himois Gas and Electric Company a 15 percent undivided interest and Commonwealth Edison Company the remaining 60% percent undivided interest. Under a companion operating agreement, the project will be eperated and maintained by Common-wealth Edison and each party will be entitled to even an to maintained by Common-wealth Edison and each party will be entitled to even and carbonating be caused in the first ownership interest. The project will be eperated and paintained by Common-wealth edit veature largely because mether interstate nor Lowa-Tilmois alone is of sufcleft size to accommodate in its system the effectually processed by a nuclear station. Moteover, heither of these two companies presently has the personnel or experience mercessary for the construction and management of such a project.

APPLICANTS

Commonwealth Edison Company is one of the Interst privately-owned electric utilities in the United States. According to the most recent available statistics Commonwealth Edison produces, purchases, transhalts, and distributes electricity in a 11,525

NOTICES

quare nifle area of northern Himois includog Ordengo and Ha emburbs. The population of this territory is presently estimated to exceed 3.000,000, As of Desember 21, 4574, Commonwealth Edit on furnished electric service to 2,729,545 emstemers and 0.4 total generating capacity was 17,657 MW, approximately one-third of which was supplied by three nuclear power stations. At the end of 1674 ft: total assets were \$5,155,734,711, and it reported a net income of \$180,014,911, Commenwealth Edition expects its peak load to increase from 13,500 MW for 1976 to 23,756 MW for 1985 and 42,290 MW by 1995, it pre-ently has later onnection agreements with a number of other electric utility companies in its yieldity inclusing interstate Power Company and Jawa-Himois Gree and Electric Company.

Interstate Power Company is a privatelyowned company encaged in the generation, purchase, transmission, and distribution of electricity in an area of approximately 10,000 square nilles in north-fast and nerth central lowa, southern Minnesola and northwestern lillools. At the end of 1974 Interstate served a total of 252 communities, the largest of which is Dubuque, lowa (pop. 63,209). At that time it served 131,920 electric customers. At the beginning of 1975 Interstate had a

At the beaming of 1575 intervice had a total generating capacity of 633 MW none of which was nuclear. It is presently a member of the Mid Continent Area Power Pool (MAPP), which consists of 12 privatelyowned utilities, seven generation and transmission cooperatives, two public power districts, 11 municipalities and the United States Bureau of Boelamation On December 31, 1973, Interstate had total assets of \$240,950,774; its net income for 1971 was \$3,440,223. Interstate expects its local to increase from 616 MW for 1976 to 1005MW for 1985 and 1755 MW by 1905.

lown-Illinois Gas & Electric Company, also a privately-owned fullity, is engaged in generating and distributing electricity (as well as purchasing and distributing natural gar) in parts of Iowa and Illinois. In 1074 the agpressimately 570,003, fits most important electric service francfiless include the Cities of Davenport, Rock Island, Molias, Fort Dodge and Iowa City, During 1575 Iowa-Phinois had a total generating capacity of 940 MW, of which 405 MW came from the company's interest in the Quad Cities, Generating Station, a nuclear facility jointly owned with Cemmonweith Edison, Towa-Phinois also has a number of Interconnection agreements with systems in its vincinity. In 1974 Iowa-Hinois' net income was \$18.60.044 and His total assets were \$160,790,484. In 1975 Iowa-Hinois' peak load was 693 MW; by 1995 it expects this iond to increase to 1588 MW, and by 1995 it expects a peak load of 2842 MW.

RESULTS OF ANTITUSUST REVIEW

The Department examined the competitive situation and practices of Connounweith Edison in reviewing that utility's applications for facturing of LaSatte County Units 1 and 2 in 1972 and Dyron station Units 1 and 2 and Braidwood Station Units 1 and 2 in 1974. As a result of our review, Commonweith Edison agreed to abandon certain practices which had raised antitroit questions, to offer participation in the factate County Units to other assteins,¹ and to accept appropriate fleering conditions - and the need for antitrust heatings on those applications was thereby obviated. See the Department's advice letters of December 20, 1972, 38 F R 901

We have received no information to sugnext that any electric systems other than the present applicants have cought the opportunity to participate in the Carroll County Units.

ATTACHMENT A

(I f is County Units 1 and 2), and March 8 19. \rightarrow FR 9852 (Byron Station Units 1 a) 2 and Braidwood Station Units 1 and \rightarrow No information has come to our attention the counts of the first and review to masthat an antitrust hearing would now be a covery resarding ConvnentWealth Edition.

Purtier, our examination of the informtion submitted to Interstate and lowast ness in connection with this application, pether with other following the relation day with other electric utilities, disclosed no across of an anticompetitive situation or coduct that would warrant an antituet being with regard to these systems.

In view of the above, we conclude the an antitum hearing will not be necessarin connection with the fleensing of the nuclear units.

[FR Doc 76 23155 Filed 8 6 76.8 45 am]

[Docket No. 70-704] GENERAL ATOMIC CO. (FUEL FABRICATION FACILITY)

Regarding Renewal of License No. SNI4-695

The Nuclear Regulatory Commissio (The Commission) is considering the renewal of Special Nuclear Material 1 cense SSM-606 for the continued opertion of the General Atomic Company Fuel Fabrication Facility at San Die -California.

The Commission's Division of 1/a Cycle and Material Safety has prepar an environmental impact appraisal f the proposed renewal of License ? SNM-696. On the basis of this apprac the Commission has concluded that environmental impact statement for () particlular license renewal is not w ranted because there will be no sign cant environmental impact atteibut: to the proposed action. The enviro mental impact appraisal (NR-FM-0 Commission's Public Occument Robin 1717 H Street NW., Washington, D.C copy may be obtained upon request dressed to the U.S. Nuclear Regulat Commission, Washington, D.C., Att tion: Director, Division of Fuel C. and Material Safety.

Dated at Bethesda, Maryland, this 30 day of July, 1976.

For the Nuclear Regulatory Common.

LELAND C. ROUSE, Chief, Fuel Processing and Fabrication Branch, Division of Fuel Cycle and Material Safty,

[FR Doc 76-23156 Filed 8 6-76(8,49 and)

ADVISORY COMMITTEE ON READE SAFECUARDS SUCCONSMITTEE OF IT MONTAGUE MUCLEAR FOLD READ TION, UNITS 1 AND 2

Meeting

In accordance with the purpose of the set to a 22 and 162b, of the A⁺, one line. Act (42 U.S.C. 2019, 2252 b.), the set to a Subcommittee on the Montague simple. Power Station, Units 1 and 2 will now

August 26 and 27, 1976 at the Gill Montanue School in Turners Falls, Massachusetts.

The purpose of this inceting is to review the application of the Northeast lear Energy Company for a construc-

, permit.

The agenda for subject meeting shall be as follows:

"Inuciday, August 26, 1976, 2:00 p m.— The Subcommitte will meet in closed Excentive Bession, with any of its consultants who may be present, to exchange opinions and discuss preliminary views and recommendations relating to the above review.

At the conclusion of the open session, the Subcommittee may caucus in a brief, closed session to determine whether the matters identified in the initial closed session have been adequately covered and whether the project is ready for review by the full Committee. During the session Subcommittee members and consultants will discuss their opinions and recommendations on these matters. Upon conclusion of this caucus, the Subcommittee may meet again in brief opensession to announce its determination.

In addition to these closed deliberative sessions, it may be necessary for the sommitiee to hold one or more closed , one with the NRC Staff and Appli-

and with the NRC Staff and Applicant for the purpose of discussing confidential proprietary information.

I have determined, in accordance with subsection 10(d) of Pub. L. 90-463, that it is necessary to conduct the above closed sessions to protect the free interchange of internal views in the final stages of the Subcommittee's deliberative process (5 U.S.C. 552(b) (5)) and to protect proprietary information (5 U.S.C. 552(b) (4)). Separation of factual material from individuals' advice, upinions, and recommendations while closed Executive Sessions are in progress is considered impractical.

Practical considerations may dictate alterations in the above agenda or schedule. The Chairman of the Subcommittee is empowered to conduct the meeting in a manner that, in his judgment, will facilitate the orderly conduct of business, including provisions to carry over an incompleted open session from one day to the next.

With respect to public participation in the open portion of the meeting, the following requirements shall apply:

(a) Persons wishing to submit written statements reparding the apenda may do so by providing 15 readily reproducible copies to the Subcommittee at the beginning of the meeting. Com-

ats should be limited to safety related areas within the Committee's purview.

Persons desiring to mail written comments may do so by sending a readily reproducible copy thereof in time for consideration at this meeting. Comments postmarked no later than August 19, 1976 to Mr. Richard Savio, ACRS, NRC, Washington, D.C. 20555 will normally be received in time to be considered at this meeting.

Background information concerning items to be considered at this meeting can be found in documents on file and available for public inspection at the NRC Public Document Room, 1717 II SL, NW, Washinston, D.C. 20555 and at the Carneric Library, Avenue A, Turner Falls, MA 01376.

(b) Those persons wishing to make an oral statement at the meeting should make a written request to do so, identifying the topics and desired presentation time so that appropriate arrangements can be made. The Committee will receive oral statements on topics relevant to the Committee's purview at an appropriate time chosen by C e Chairman of the Subcommittee.

(c) Further information regarding topics to be discussed, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor can be obtained by a prepaid telephone call on August 25, 1976 to the Office of the Executive Director of the Committee (telephone 202,634-1371, Attn: Mr. Dichard Savio) between \$:15 a.m. and 5 p.m., c.d.t.

(d) Questions may be propounded only by members of the Subcommittee and its consultants.

(c) The use of still, motion picture, and television cameras, the physical installation and presence of which vill not interfere with the conduct of the meeting, will be permitted both before and after the meeting and during any recess. The use of such equipment will not, however, be allowed while the meeting is in session.

(f) Persons with agreements or orders permitting access to proprietary information may attend portions of ACRS meetings where this material is being discussed upon confirmation that such agreements are effective and relate to the material being discussed.

The Executive Director of the ACRS should be informed of such an agreement at least three working days prior to the meeting so that the agreement can be confirmed and a determination can be made regarding the applicability of the agreement to the material that will be discussed during the meeting. Minimum information provided should include information regarding the date of the agreement, the scope of material included in the squeement, the preject or projects involved, and the names and titles of the persons signing the agreement. Additional information may be requested to identify the specific agree-

ment ... volved. A copy of the executed agreement should be provided to Mr Richard Savio of the ACRS Office, provide to the beginning of the meeting.

(c) A copy of the transcript of the open portion of the meeting will be available for inspection on or after September 2, 1976 at the NPC Public Document Room, 1717 H St. NW., Washington, D C 20555 and at the Carnepie Library, Avenue A, Turner Falls, MA 01376.

Copies of the minutes of the meeting, will be made available for inspection at the NIC Public Decument Room, 1717 H St. NW, Washington, D.C. 2055a after November 28, 1976. Copies may be obtained upon payment of appropriate charges.

Dated: August 5, 1976.

Joun C. Hoytz. Advisory Committee Management Officer.

[FR Dot 76 23276 Filed & 6-76;9:27 and]

OFFICE OF MANAGEMENT AND BUDGET

Office of Federal Frocurement Policy

EXECUTIVE BRANCH POSITION ON COM MISSION ON COVERNMENT PROCURE MENT

Recommendations C-1 Thru C-12, Major System Acquisitions

Notice is given that an executive branch position has been reached on the Commission on Government Procurement (COGP) recommendations C-3 through C-12.

OMD Circular No. A-109, Major Sytem Acquisitions, was issued on April 1976, following a review by Conpre-This policy will effect reforms throughout the executive branch vo reduce cooverruns and to diminish the centreversy of the past two decades on whether new systems are needed.

The main thrust of the policy requires:

Top level management attention to the determination of agency mission need and goals.

Early direction of research and devel opment efforts to mission needs and goals.

Improved opportunities for innovative private sector contributions to national needs.

Avoidance of premature commitment to full-scale development and production.

Early communication with Congressin the acquisition process by relating major system acquisitions to arcney in sion needs and reals.

OMB Circular No. A-109 is consistent with the unanhnous recommendation C-1 through C-12, of the Commission of Government Productment. Therefore, C-1 through C-12 are considered closed out.

Ruch E. Whit. Administrator

[FR Doc.76-23027 Filed 8 0.76,8.45 min]

FEDERAL REGISTER, VOL. 41, NO. 154-HONDAY, AUGUST 9, 1976