converted to notation vote 6/20/94

POLICY ISSUE

(NEGATIVE CONSENT)

June 6, 1994

SECY-94-158

FOR: The Commissioners

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: POLICY ON RELEASE OF THERMAL HYDRAULIC CODES DEVELOPED UNDER NRC SPONSORSHIP

PURPOSE:

1. To inform the Commission of the staff's current practices and future plans regarding release of thermal- hydraulic computer codes developed under NRC sponsorship, including codes validated using proprietary data for staff use in assessing advanced, passive, reactor designs developed in the U.S.

2. To solicit Commission negative consent comment and approval with regard to these staff plans and practices.

BACKGROUND:

During the September 20, 1993, Commission briefing by the staff on the status of AP600 and SBWR thermal-hydraulic testing, Commissioner Remick questioned the staff on the possible implications of releasing NRC-sponsored computer codes validated for use to assess the performance of passive advanced light water reactors. In addition, one of the passive reactor vendors, Westinghouse, has also raised this concern. In order to address this question, a brief history of our current policy is provided.

Contact:
L. Shotkin, RES
492-3530

SECY NOTE: IN THE ABSENCE OF INSTRUCTIONS TO THE CONTRARY, SECY WILL NOTIFY THE STAFF ON TUESDAY, JUNE 21, 1994 THAT THE COMMISSION, BY NEGATIVE CONSENT, ASSENTS TO THE ACTION PROPOSED IN THIS PAPER.

TO BE MADE PUBLICLY AVAILABLE WHEN THE FINAL SRM IS MADE AVAILABLE.

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Up until the early 1980's, the NRC routinely made its thermal-hydraulic computer codes, such as TRAC and RELAP, available to the public (including the international community) by releasing them through the former Argonne Code Center. Anyone, including foreign nationals, who wanted a released version of a code, simply had to request the code directly from the code center, and no NRC approval was required. This policy was the same at that time for all NRC-sponsored research results; that all results were made publicly available to promote international nuclear safety. It became very apparent by the early 1980's, however, that foreign governments as well as foreign companies were routinely requesting and obtaining the latest versions of our codes as soon as they were released. Since the NRC had spent hundreds of millions of dollars since the early 1970's on both code development as well as on thermal-hydraulic experiments to validate the codes, it did not seem appropriate that these foreign organizations should get the codes at no cost. Thus, around 1983, the NRC's Office of Nuclear Regulatory Research started the International Code Assessment Program, known as ICAP.

ICAP involved the NRC entering into a bilateral agreement with the government of another country which was interested in obtaining the NRC's thermal-hydraulic computer codes. Under this agreement, the NRC would provide the latest version of its thermal-hydraulic computer codes, and the recipients of the code could have access to the code developers if they had questions or were experiencing difficulty in executing the code. In return for the codes, the foreign government that entered into the agreement would provide the NRC with a specified number of code assessment calculations every year. These assessment calculations performed by ICAP members greatly reduced the number of assessment calculations the NRC would normally have to do. In addition, the ICAP member often identified errors in the code and proposed corrections to the errors. Hence, the NRC got some leveraging of its code development investment, and also retained a substantial degree of control over the codes.

It was also explicitly stated in the ICAP bilateral agreements that the codes would be used by either that country's government, or contractors to that government, and that the use would be only for safety analyses of that country's reactors and not for commercial purposes. ICAP agreements usually lasted about 5 years, most were renewed about once, and ICAP membership has consisted of about 15 countries over the past 10 years.

In 1993, most of the current ICAP agreements were scheduled to expire. Because of the lack of major thermal-hydraulic experimentation being conducted worldwide, along with the current level of maturity of the codes, the need for extensive code assessment was greatly diminished for the codes used to analyze current generation reactors. Therefore, we have refocused and renamed the program. The successor to ICAP is called the Code Applications and Maintenance Program, or CAMP. The principal objective of CAMP is for member

countries to contribute primarily cash to our code development and maintenance programs rather than code assessments (although the equivalent of two code applications per year are still required). In return, they still receive assistance in running the codes from the laboratories that developed them. Also, each CAMP agreement includes both a nondisclosure agreement stating that the code will not be given to third parties without NRC approval, and, as in ICAP, an agreement that the codes will not be used for commercial purposes. A number of countries have already joined CAMP, while a number of others are uncommitted.

As previously stated, when the staff first began the ICAP program, our agreements were exclusively with foreign governments, and it was implicitly assumed that these governments would use the codes for safety calculations of reactors in their countries. More recently, however, several countries have been allowing private companies to act as their agents in CAMP, including providing the funds necessary to join CAMP.[1] This has caused one U.S. reactor vendor, Westinghouse, to express concern to the staff that this policy was allowing foreign companies to compete with Westinghouse on commercial contracts using the NRC-developed codes. Because the staff was unaware that foreign companies were using NRC's thermal-hydraulic codes for commercial purposes as Westinghouse claimed, the staff sent letters (Appendix A) to both Westinghouse and General Electric requesting their opinions on this matter. The Westinghouse reply gave two examples of foreign companies using NRC-developed codes for commercial purposes. We are currently discussing this matter with the German and French governments to determine if a violation of our agreements has, in fact, occurred.

Recently four companies (Siemens, Tractebel, KEMA, ABB Asea Brown Boveri) requested a meeting with the staff during the Water Reactor Safety Meeting in October 1993. In this meeting, they appealed to the staff to delete the requirement in the current, proposed CAMP agreements that the codes could not be used for commercial purposes since they felt that the major benefit of their involvement in CAMP would be the ability to use the NRC codes for commercial as well as noncommercial purposes.

In addition to the above issue, a second, related issue arose regarding distribution of NRC-developed codes that had been experimentally validated for use in evaluating the advanced, passive reactor designs currently under review for certification (AP600, SBWR). The issue was whether Westinghouse and/or General Electric could be hurt commercially if NRC-developed codes that had been validated against vendor and NRC-developed passive system performance

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[1]It should be noted that we only sign agreements with governments, otherwise the funding goes into the general treasury. In the past, we have allowed private companies to enter into agreements directly with DOE labs.

data (e.g., data from ROSA, SPES, GIRAFFE) were released through the CAMP program to foreign companies that could potentially compete with Westinghouse and General Electric. To determine the vendor's position on this second issue, the staff letters to both Westinghouse and General Electric also solicited their position on this matter. The replies received from Westinghouse and General Electric addressing these code release concerns are also enclosed in Appendix A.

DISCUSSION:

NRC's computer codes, like any other records in the possession of the staff, are subject to the Freedom of Information Act (FOIA). This means that anyone, including foreign nationals, can request copies of the NRC's thermal-hydraulic computer codes under an FOIA request. Although there are nine (9) categories of exemptions in which records can be withheld from disclosure, only one is relevant to the two issues discussed above. This is Exemption (4), which applies to "Records 'containing trade secrets and commercial or financial information obtained from a person and privileged or confidential ...'." Exemption (4) is utilized to exempt from disclosure information which is required to be submitted to NRC when that information meets the following two conditions:

a. the information is a trade secret or commercial or financial information; and

b. disclosure of the information must either (1) result in substantial harm to the competitive position of the owner, or (2) harm the government's ability to obtain information in the future.

Moreover, under applicable FOIA law, information generated by the U.S. government does not qualify for protection under Exemption (4), because to qualify for proprietary treatment, information must be submitted from outside the Government. With regard to the first issue, dealing with the commercial use of NRC-sponsored codes by foreign governments, Exemption (4) cannot be invoked to withhold release of the codes because the NRC's thermal-hydraulic codes do not contain any information proprietary to U.S. vendors. However, proprietary experimental data may be used in the NRC's validation process. Any proprietary information needed to analyze a U.S. vendor's design is only contained in the input deck to the code. Input decks that contain proprietary information are withheld from public disclosure under Exemption (4) of the FOIA. Likewise, as discussed below, Exemption (4) cannot be invoked to withhold NRC thermal-hydraulic codes that have been validated against passive system performance data for the same reason. A short description of the staff procedures to protect proprietary information used in thermal-hydraulic computer analyses is provided in Appendix B. Code validation efforts primarily involve comparing the code predictions to the actual experimental data. If the code's ability to predict the data is considered to be inadequate, then the code developers try to determine why the prediction was

inadequate. Many times this involves improving or modifying a model or models in the code, rerunning the prediction, and seeing if the prediction of the data is now available. The improvements or modifications made to the model or models in the code are not based upon proprietary data and will not be unique to the passive system design, but are to be made to better predict specific phenomena that, while having an important effect on passive system performance, are equally applicable to conventional system designs. Condensation heat transfer is an example of this. Condensation heat transfer is considered to have a greater influence on passive safety system performance than on safety system performance in conventional nuclear plants. Simplified or approximate condensation models in the RELAP5 code that were considered acceptable for conventional plant analyses may not prove accurate enough for passive system performance predictions, and more detailed models may need to be put in the code. This involves only a more detailed treatment of the condensation phenomenon, and does not result in including proprietary data or models in the code, or models that are specific or unique to passive system performance. Based on the above, the staff cannot legally refuse an FOIA request for its codes, including those versions that may have been validated against passive system performance data provided that specific modeling in the code is not based on proprietary data. The only option that would ensure codes validated for passive system performance were not disseminated to potential competitors of Westinghouse and General Electric would be for the staff to abandon its code development effort for the passive reactor designs and rely solely on the vendor codes. Where the vendor codes are proprietary, we could withhold their release under Exemption (4).

As discussed in the background section of this paper, because the NRC's thermal-hydraulic codes are complex and require experience to run efficiently, to many, receipt of the code is not of primary concern as much as is receiving the developer's assistance in running the code, along with participating in the user's program. As such, while we are legally obliged to release the codes to the public under FOIA, we are not legally obliged to let organizations join CAMP, receive code developer assistance, or even enter into bilateral agreements with the agency. Thus, as a policy matter, the agency could actively discourage the commercial use of its codes for either current operating reactors and/or advanced passive reactors by making membership in CAMP, access to the code developers, and even having a bilateral cooperative research agreement with the NRC conditional upon not allowing commercial use of a code provided by NRC under a cooperative agreement. We could consider amending agreements to allow immediate termination of the agreement if codes were being used for commercial purposes.

CONCLUSION:

In summary, the issues discussed in this paper are "Should we change our current policy and allow foreign organizations to utilize NRC-developed thermal-hydraulic codes for commercial purposes?" and "Should we withhold dissemination of NRC thermal-hydraulic codes that have been validated against passive system data?"

We conclude that the answer to the first question is "no, we should not change our policy." The original intent of NRC releasing its codes for the international community to use was to promote and enhance nuclear safety worldwide. It was not to defray or eliminate code development cost for international companies seeking codes for use in commercial ventures. Moreover, this is still the pivotal reason we continue to endorse releasing our codes to the international community.

We do recognize, however, that there are some potential drawbacks to continuation of this policy. The NRC's thermal-hydraulic computer codes are used by more countries in the world than any other codes for reactor safety analyses. The extensive use of the NRC's codes has put the NRC in an international leadership role in the area of nuclear reactor thermal-hydraulics. If the NRC continues its policy that actively discourages the commercial use of its codes, we believe that some countries might drop out of the CAMP program and seek other alternatives to NRC's codes. Some possible alternatives we envision include use of the French code CATHARE, or funding the European Community to take the RELAP5 or TRAC codes and create a European version for use by countries that have dropped out of CAMP. This would undoubtedly lead to an unwanted competition between codes and, in addition, we would lose some CAMP funding that currently goes towards code development and maintenance.

Our conclusion regarding the second question is "no, we should not withhold those versions of the codes that have been validated against passive system data." As previously discussed, validation against passive system data does not imply that the code contains proprietary or design-specific data or information, only that it contains sufficiently accurate phenomenological models that can predict passive system performance. For the reasons involving the FOIA requirements discussed above, and the fact that information generated by U.S. government agencies cannot be withheld from the public, we have concluded we cannot, without good cause, declare our codes proprietary and thus we cannot withhold them from public release. If, however, we decided to develop a correlation or phenomenological model for use within a code based solely upon proprietary data, that model would not be released under FOIA. This fact should provide a suitable level of protection for commercially sensitive proprietary information from vendors of the advanced passive reactor designs.

Based on the reasons presented above, we intend to inform the four foreign companies that appealed to us on this matter last fall that the current restrictions placed on them regarding commercial use of NRC codes obtained under CAMP will remain effective. We also intend to retain the clause in current CAMP agreements prohibiting commercial use of the codes. This will be true for the codes that are currently released as well as future versions that may have been validated against passive system performance data but do not contain modeling based upon proprietary data. If, however, it is proven any CAMP member is using our codes for commercial purposes or giving the codes to

third parties without proper control and approval, we intend to notify that member that they may not continue membership in CAMP. In addition, although the codes discussed in this paper are those associated with thermal-hydraulics, it is our intent to apply this policy uniformly to all NRC developed codes (such as the severe accident codes) which may have the potential to be used for commercial purposes. Unless we are instructed otherwise by the Commission, the staff intends to continue implementing its code release policy as described above.

COORDINATION:

The Office of General Counsel has reviewed this paper and has no legal objections.

James M. Taylor
Executive Director
for Operations

Enclosures:
As stated

cc: SECY
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APPENDIX A

NRC LETTERS TO WESTINGHOUSE AND GENERAL ELECTRIC AND WESTINGHOUSE AND GENERAL ELECTRIC RESPONSES

DEC 13 1993

Nathanial D. Woodson, Vice President
and General Manager
Energy Systems Business Unit
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, Pa. 15230

Dear Mr. Woodson:

The purpose of this letter is to request your comment on requests to allow foreign vendors to use reactor system codes such as RELAP5 and TRAC for commercial purposes.

Since the early 1980's, the NRC has made its thermal hydraulic systems analysis computer codes (RELAP5, TRAC) available internationally through bilateral agreements with the governments of countries in both Europe and Asia. The NRC provides the latest version of the codes in return for assessment of results of the code against experimental data. We coordinated code agreements with these countries through the International Code Assessment Program (ICAP). Many of these ICAP agreements are now expiring, and we propose to renew them under a new program, the Code Assessment and Maintenance Program (CAMP). The main difference between ICAP and CAMP is that under CAMP, we require cash contributions with limited code assessment.

The original intent was essentially as follows: (1) it provided more assessment calculations using our codes than the NRC could alone perform; (2) it advanced nuclear safety world wide by making such codes readily available; (3) these programs afforded us more direct control over our codes with regard to their use in other countries. Under the new CAMP program, the benefit is increased funding for maintenance and development of the code.

Recently, however, two concerns have arisen regarding the impact our program may have on marketing by domestic vendors such as Westinghouse. These concerns are:

1. Originally, the agreement assumed the foreign government would use the codes only for safety analyses of their plants. Now, however, governments are designating private companies (e.g., Siemens, KEMA) as agents for interfacing with the NRC. In addition, these companies are providing the CAMP funding for participating in NRC programs. Therefore, they feel they have paid for the right to use the codes and have requested to use them for commercial purposes. The question is, would Westinghouse thereby be placed at a disadvantage and, if so, why?

2. Part of the NRC's design certification process for the AP600 plant is the modification and validation of computer codes, primarily RELAP5, to analyze the passive safety system performance. The concern is that release of the codes that have had phenomenological models modified or added as a result of assessment against experimental data developed by either Westinghouse (e.g., SPES, OSU) or the NRC (e.g., ROSA-V), might adversely affect the ability of Westinghouse to maintain its commercial advantage over its competitors.

I look forward to your reply. If you have any further comments or questions on this request, please feel free to call Brian W. Sheron of my staff at (301) 492-3500.

Sincerely,

ORIGINAL SIGNED BY

Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

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DEC 13 1993

Mr. Steven Specker, Vice President
GE Nuclear Energy
175 Curtner Avenue
San Jose, California 95125

Dear Mr. Specker:

The purpose of this letter is to request your comment on requests to allow foreign vendors to use reactor system codes such as RELAP5 and TRAC for commercial purposes.

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2. Part of the NRC's design certification process for the SBWR plant is the modification and validation of computer codes, primarily RELAP5, to analyze the passive safety system performance. The concern is that release of the codes that have had phenomenological models modified or added as a result of assessment against experimental data developed by either General Electric (e.g., FIST) or the NRC (e.g., Purdue Loop), might adversely affect the ability of General Electric to maintain its commercial advantage over its competitors.

DEC 13 1993

I look forward to your reply. If you have any further comments or questions on this request, please feel free to call Brian W. Sheron of my staff at (301) 492-3500.

Sincerely,

ORIGINAL SIGNED BY

Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

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g:\westcode

Westinghouse
Electric Corporation

Energy Systems
Business Unit

N D Woodson
Vice President and
General Manager

Box 355
Pittsburgh Pennsylvania 15230

February 3, 1994

Dr. E. S. Beckjord, Director
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Dr. Beckjord:

Thank you for your letter on the NRC International Code Assessment and Maintenance Program (CAMP) and your consideration as to the effect such a program can have on the Westinghouse competitive position in the international market. We clearly believe that there would be a competitive disadvantage to Westinghouse if any information/codes released through the program are utilized by our foreign competitors for commercial purposes. We expect our proprietary data to be safeguarded under applicable laws in any such program.

Westinghouse products and services are continuing to face increased competition world-wide, particularly from European-based companies that now have complete or controlling interest in former U.S. owned companies. There is an increased dependence of these companies, particularly Siemens, Tractebel, and Framatome, on safety analysis computer codes and methods which were developed by U.S. National Laboratories for the Nuclear Regulatory Commission. This has the commercial effect of a U.S. government subsidy of our foreign competitors.

The quality and accuracy of the safety analysis codes used in the assessment of a particular fuel design are significant competitive advantages because they are important to plant operation and performance. The licensing calculations, particularly the large break LOCA, establish the fuel peaking factors and therefore, the operational envelope for the plant. Improved safety analysis methods result in increased plant peaking factors, which can then be utilized by the utility to improve the fuel cycle costs utilization of new fuel designs and/or cycle length (availability). The utility can also use the increased peaking factors as margin to compensate for equipment wear or steam generator tube plugging margin. Therefore, the safety analysis method used to perform the calculations directly affects the marketability of fuel to the utility.

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As stated in your letter, the original intent of the Nuclear Regulatory Commission to release its codes to foreign governmental agencies has merit. It supports the application of U.S. standards which makes it easier for Westinghouse and other American companies to establish a presence in these countries, and identifies the Nuclear Regulatory Commission as the technical leader in this area. However, we have noticed, as your letter states, that some foreign governments are directly passing the code and its associated technology to private companies. On several recent fuel contracts, Westinghouse has been bidding against foreign companies either in the U.S. or Europe which are relying on U.S.-developed safety analysis technology to license their fuel products. More specifically, we have been bidding on fuel reloads for the Ringhals Units in Sweden and the TIHANGE Units in Belgium (both are three-loop Westinghouse plants) against Framatome. The latest Framatome safety analysis model is TRAC-PF1/MOD2 and this model was used as the system code to evaluate the LOCA transient. We have also been competing against Siemens for reloads in the BEZNAU Units in Switzerland (two-loop Westinghouse plant) and the H. B. Robinson Unit (three-loop Westinghouse plant) in the U.S. Siemens uses the RELAP5/MOD2.5 code to evaluate the LOCA transients and they include the codes as part of the technology transfer to the utility. We have had similar experience with Babcock and Wilcox Company which is owned, in part, by Framatome, when competing on the Duke Power Units (Westinghouse four-loop PWR's).

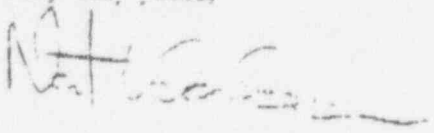
Westinghouse is placed at a severe commercial disadvantage when our foreign based or owned competitors can participate in programs such as the CAMP program and in connection therewith can utilize the NRC developed codes, and obtain easy access to the latest versions of codes and code developers. In certain markets, this gives the image of NRC endorsement of their products/services. Our competition can directly utilize the results of taxpayer and U.S. utility supported safety research as a commercial advantage against Westinghouse and thereby offset development costs that they must otherwise recover in their price for fuel and services.

We have greater concern about the release of any code validated against our proprietary test data for the AP600. In this situation, our competitors would receive the benefit of data which Westinghouse, the Department of Energy and the Utilities invested significant funds and several years of effort to obtain. The passive technology is a significant competitive advantage for Westinghouse in the world market and represents the future of nuclear power.

For the reasons stated herein, we are opposed to any NRC action resulting in releasing any codes to our competitors, and would request that the NRC administer its CAMP program to assure its codes as proprietary to the NRC and National Laboratories.

We would be happy to meet with you to discuss this further should our position cause hardship for the Commission.

Very truly yours,



GE Nuclear Energy

Steven A. Specker
Vice President and General Manager

General Electric Company
175 Curtner Avenue San Jose CA 95125
408 925-1992 Tel 408 925-3674

January 18, 1994

Mr. Eric S. Beckjord, Director
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Beckjord:

This letter responds to your letter of December 13, 1993 requesting GE comments on requests to allow foreign vendors to use reactor system codes such as RELAP5 and TRAC for commercial purposes. While we fully support the need of the NRC to maintain safety codes to enhance reactor safety, we have significant concerns with the apparent commercialization of these codes under the proposed Code Assessment and Maintenance Program (CAMP).

Through the CAMP program, foreign companies would be able to obtain state-of-the-art safety codes for a relatively small annual fee. Since there would apparently be no restrictions on the u of these codes, participants in CAMP could use these codes for commercial applications. This would create direct competition to GE through work partially funded by U.S. taxpayers.

The CAMP program would ultimately eliminate any incentive for GE to perform safety research to independently develop and maintain safety codes. As you may be aware, GE has invested substantial resources in developing an improved version of the TRAC code (e.g., 3D neutronics). In addition, substantial GE resources will be expended to license the improved version with the NRC. This improved code provides GE with a unique capability to evaluate beyond-design-basis-events such as ATWS-stability. In addition, it allows GE to perform improved benchmark calculations for current licensed safety codes. Under the CAMP program, similar code improvements could be developed and made available to all participants. Therefore, GE's competitive advantage will be lost if competitors have access to code improvements based on GE experience and will unfairly provide competitors with a windfall. This will deprive GE of the opportunity to realize an adequate return on its large investment in developing the improved code. In fact, the CAMP program encourages and rewards companies not to spend private resources to develop or improve independent codes. Furthermore, companies that cannot afford to invest in code improvements and maintenance would suddenly be more competitive.

The second concern identified in your letter addresses code modifications to analyze the SBWR plant response. GE has developed a SBWR version of TRAC based on experimental data developed by GE. Release of the TRAC code will provide our competitors with the ability to normalize or verify their own process and allow them to claim an equivalent understanding by demonstrating that they can arrive at similar conclusions. Again, GE's commercial advantage will be seriously impacted.

It must be pointed out that the above discussion applies to both domestic and foreign companies. Several GE competitors in the nuclear fuel and plant services area which are headquartered in Europe have ownership of U.S. based companies. Therefore, even if the codes are not released to foreign companies for commercial use, the capability could be obtained through the U.S. subsidiary. In other countries where GE has local ownership of manufacturing facilities, we are not privy to the results of their government funded computer codes.

In summary, GE opposes the release of NRC sponsored reactor safety code improvements for commercial use because it would do substantial harm to our competitive position. Furthermore, any incentive for GE to continue to invest substantial resources in the advancement of basic research and code improvements would be severely limited. The NRC's role should be limited to basic research and development of audit code capability; not commercialization of reactor safety codes.

Sincerely,

SR Specker

Steven R. Specker
Vice President and General Manager

cc: B.W. Sheron (NRC)

APPENDIX B

STAFF PROCEDURES TO PROTECT PROPRIETARY DATA USED IN THERMAL-HYDRAULIC ANALYSES

Proprietary data, correlations or methods could be used in two ways; in our thermal-hydraulic codes themselves or in construction of models of the plants upon which the analyses are performed. It has been NRC policy that proprietary information of any kind not be used in the codes themselves and therefore there is never any justifiable reason that the codes should not be freely disseminated.

In order to construct models of the plants that are faithful representations of the physical design of the plant, proprietary data may be used. This is needed to assure maximum applicability of the calculated results to the as-designed or as-built plant. The model builder is made aware when proprietary data are used in building these plant models. Similarly, the user is made aware that the plant model contains proprietary information by a message displayed on the monitor.

When proprietary data are used in developing plant models, it is done so with permission from the organization that provided the data to NRC. Part of the agreement indicates how the data will be used and which, if any, NRC contractors are entitled to the data. If it is required that the contractor sign an agreement generated by the originator of the data, as was the case with the advanced reactors, then the contractor must sign that agreement before receiving the data. In addition, the data and the decks developed from the data will not be provided to parties outside the agreement without first receiving the permission of the originator. All DOE laboratories working on our thermal-hydraulic codes are equipped to handle and protect proprietary data.

The following specific measures are used by NRC contractors to ensure that the AP600 and SBWR input decks, which contains proprietary information are protected from disclosure:

1. The input deck is kept under configuration control by a single custodian who controls access to the electronic file.

2. When an internal request is received for the input deck, a non-disclosure form must be signed by the recipient indicating that the deck will not be transmitted to anyone else, including other contractor personnel. Only those who have a demonstrated need are given a copy of the input deck.

3. When an external request is received for the input deck (such as from another DOE laboratory working under contract to the NRC), the NRC is contacted for approval of the transmittal. The deck is transmitted after written NRC approval is received. The letter

accompanying the transmittal states that proprietary information is included that should be handled accordingly.

We believe that these steps assure that proprietary thermal-hydraulic information obtained by NRC and used by our contractors will be handled in a manner consistent with NRC policy and the requirements of the originator.