



SECY-82-423

October 19, 1982

**POLICY ISSUE**  
(Notation Vote)

For: The Commission

From: William J. Dircks  
Executive Director for Operations

Subject: PROPOSED TRANSFER OF TECHNOLOGY TO JAPAN  
PURSUANT TO 10 CFR PART 810

Purpose: To obtain the Commission's concurrence in the attached proposed response to the Department of Energy (DOE).

Discussion: On October 1, DOE forwarded for NRC review a request (Attachment A) from Bechtel Corporation to provide assistance, as a consultant to the Hitachi Corporation, in repairing a leak in a dissolver at the Tokai Mura reprocessing facility in Japan. (The October 1 DOE letter also advises of an additional request by UIC Nuclear Industries to assist as a consultant in providing services to decontaminate the distributor room of the Tokai Mura facility. DOE plans to forward this request for review some time in the future.)

Specifically, Bechtel has requested authorization to:

- Evaluate Hitachi's non-destructive analysis of the cause of the leak and the defective area to be welded.
- Evaluate Hitachi's choice of welding-repair technology, including testing of potential welding procedures and post-welding examination methods in the Tokai laboratory.
- Evaluate plans for demonstrating the welding repair methods in a mock-up facility, involving an evaluation of the adequacy of the proposed remote equipment design and operation necessary to complete the repair.

CONTACT:  
Wm. Upshaw, IP (49-24724)  
9412120123 940111  
PDR FOIA  
GILINSK92-436 PDR

Information in this record was deleted  
in accordance with the Freedom of Information  
Act, exemptions 5  
FOIA- 92-436

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The Commission

Discussion  
(Continued)

- Evaluate the overall repair plan and detailed procedures for repair and post-repair examination.
- Evaluate the welding and make recommendations for remedial action in the event of unanticipated problems.

In its rather extensive analysis of this request, which led to the conclusion that the case should be approved, DOE noted in particular:

- Japan has an agreement for cooperation with the U.S. which provides for the reprocessing of U.S. origin material upon a joint determination that the Japanese facility where the material is to be reprocessed can be safeguarded effectively. The initial Joint Determination for Tokai Mura went into effect in September 1977 and has been subsequently extended several times to permit additional reprocessing at that facility through December 1984.
- Japan, as an NPT party, has accepted full-scope safeguards.
- The technology involved is insignificant, uses common industrial techniques, and is available widely. In support of this point, DOE appended to its analysis a list of companies worldwide that are capable of performing these services.
- While the repair of the dissolver is unique in that it must be done by remote means because of the high radiation level, remote equipment is not unique to reprocessing and has a number of other uses; accordingly this does not constitute the export of reprocessing technology.
- This proposed assistance is consistent with the President's plutonium use policy issued June 4, 1982. (A copy of this policy, which is classified, is maintained by the Secretariat.)

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The Commission

- The assistance does not constitute sensitive nuclear technology and, thus, does not have to meet the criteria of Sections 127 and 128 of the NNPA.
- Approval of this assistance would help establish a positive climate in which to seek renegotiation of amendments to the US/Japan Agreement for Cooperation and, eventually, a long-term programmatic approval. Denial of this request could have a negative effect on these proposed negotiations.

Conclusion:

The staff believes that this request, which involves indirect assistance to Japan's nuclear program, is not in itself significant and is not inconsistent with current U.S. policy (e.g., the President's plutonium use policy). The staff, therefore, has no reason to object to DOE's proposed approval. At the same time, the staff notes that this is the first proposed U.S. export of reprocessing-related technology which has been reviewed since the President issued the plutonium use policy.

Recommendation:

That the Commission approve the attached proposed letter to DOE, noting the DOE staff's plans to recommend that the Secretary of Energy grant the requested authorization.

Scheduling:

The NRC review period expires November 3.

William J. Dircks  
Executive Director for Operations

Attachments:

- A - Ltr. fm. JAGriffin to  
to JRShea, dtd. 10/1/82
- B - Proposed NRC response to DOE

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Commissioners' comments or consent should be provided directly to the Office of the Secretary by c.o.b. Tuesday, November 2, 1982.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Tuesday, October 26, 1982, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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ATTACHMENT A



Department of Energy  
Washington, D.C. 20585

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OFFICE OF

Mr. James R. Shea  
Room 406 East South  
U.S. Nuclear Regulatory Commission  
4430 East-West Highway  
Washington, DC 20555

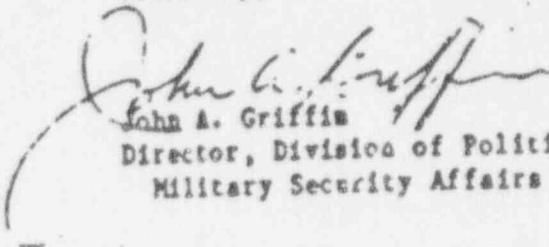
Dear Mr. Shea:

We have received a request pursuant to the Department of Energy's (DOE) regulations 10 CFR Part 810 by the Bechtel Corporation to assist in the repair of a dissolver of the Tokai Mura reprocessing facility in Japan. Specifically, the Bechtel Corporation has been requested to be weldin consultant to the Hitachi Corporation, who has been selected by the Power Reactor and Nuclear Fuel Development Corporation (PNC) as the prime contractor for the repair. Further details of the Bechtel request and the DOE staff analysis and recommendation are enclosed.

In addition, DOE has received a request by UNC Nuclear Industries to become a consultant for decontamination services to Mitsubishi Kakoki Kaisha, a Japanese firm that is bidding for a contract to decontaminate the distributor room of the Tokai Mura facility. The distributor room must first be decontaminated of radioactive materials before access to the dissolver can be obtained. The DOE staff analysis for this request will be provided to you separately.

Your views and comments along with any information pertinent to this application are requested. If no comments are received within 30 days of receipt of this letter, ISA will assume that you have no objection to the proposed recommendation.

Sincerely,

  
John A. Griffin  
Director, Division of Politico-  
Military Security Affairs

1 Enclosure

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DOE Analysis of 10 CFR Part 810  
Bechtel Request to Assist in Repair of Tokai Mura Reprocessing Facility

Problem

The Tokai Mura reprocessing plant in Japan has developed a small leak in one of its two dissolvers in which spent fuel elements are dissolved in nitric acid. The pinhole leak appears to be located in an underside section of one of the dissolvers, thereby reducing the overall capacity of the plant by one-half. The leak appears to be the result of the use of improper welding techniques for the type of stainless steel used in the dissolver.

As the Tokai Mura plant was designed for contact (direct) maintenance, the repair of the dissolver must be done in the dissolver room. It is not feasible to remove the dissolver for repair and because of the high radiation levels in the dissolver room, repair of the dissolver must be done remotely, i.e. by a "robot".

Hitachi has been awarded a contract for the task of repairing the leak in the dissolver. Hitachi is one of the leading companies in the world in the field of remote systems technology, i.e., "robot" technology. Hitachi has requested the Bechtel Corporation to be its consultant regarding welding technology.

Consulting Services to be Performed by Bechtel

It is understood that as prime contractor, Hitachi will perform the following activities for the Power Reactor and Nuclear Fuel Development Corporation (PNC) regarding the repair of the dissolver:

- o Development of methods for the diagnosis of the cause of the leak
- o Development of the repair method (including appropriate remote equipment design and development)
- o Testing of candidate repair methods in a mock-up facility
- o Application of the selected methods to the actual repair
- o Testing of the repaired dissolver

It has not been determined whether the actual repair will be done by Hitachi or by PNC personnel under the direction of Hitachi.

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As consultant to Hitachi, Bechtel has requested authorization under DOE regulations 10 CFR Part 810 to perform technical review and consulting services in several welding-related areas. Those services include:

1. Review and evaluation of Hitachi's non-destructive analysis of the defective weld area and cause of the leak.
2. Review and evaluation of Hitachi's choice of weld repair technology including testing of candidate weld procedures and post-weld examination methods in the laboratory.
3. Review and evaluation of plans for demonstration of the selected weld repair method in a mock-up facility including evaluation of the adequacy of the proposed remote equipment design and operation to accomplish the weld repair.
4. Evaluation of the overall program plan and detailed procedures for repair and post-repair examination.
5. Evaluation of the actual weld and recommendation for remedial action in the event of unanticipated problems.

Bechtel expects that four of its personnel who are experts in the fields of metallurgy, welding and mechanical and nuclear engineering will be involved, although the degree of their involvement will vary according to the nature of the service to be performed. The Bechtel personnel will not be involved in the design and development of the remote equipment, but will be limited to evaluating the adequacy of the design and the testing of the equipment to ensure that it will be able to repair the leak. Bechtel may be requested to provide other services regarding the repair of the leak if unexpected problems develop. However, it is not possible to specify what these services might be other than to say that they would be related to the repair of the leak and to welding technology.

DOE Analysis of Bechtel 10 C.R Part 810 Request

DOE has reviewed the Bechtel request under the criteria established in 10 CFR Part 810.8:

1. Whether the U.S. has an agreement for cooperation with the country in which the proposed activity will be conducted.

The U.S. has an agreement for cooperation with Japan. Furthermore, Article VIII C of the Agreement for Cooperation between the Government of the United States of America and the Government of Japan Concerning the Civil Uses of Atomic Energy of February 1968, as amended, provides that when any special

nuclear material received from the United States requires reprocessing, such reprocessing may be performed in Japanese facilities upon a joint determination that the safeguards provisions (Article XI) of the Agreement may be effectively applied, or in such other facilities as may be mutually agreed.

On September 12, 1977, the Government of Japan and the Government of the United States of America jointly determined pursuant to Article VIII C of the Agreement that safeguards may be effectively applied to the reprocessing in the Tokai Facility of irradiated fuel elements containing up to 99 tonnes of fuel material received from the United States. The Joint Determination and the accompanying Joint Communiqué applied for an initial period of two years, i.e., until September 1979. Since that time, the subsequent arrangement was extended four times to October 31, 1981, with certain modifications including an increase in the total amount of fuel to be reprocessed to 149 tonnes. Finally, in October 1981, the Tokai agreement was extended from October 31, 1981 to December 31, 1984 and includes an increase in the total amount of fuel that can be reprocessed from 149 tonnes to 210 tonnes.

2. Whether the country in which the proposed activity will be conducted is a party to the treaty on the Non-proliferation of Nuclear Weapons (NPT) and, pursuant thereto, has entered into an agreement with the International Atomic Energy Agency (IAEA) for the application of safeguards to its peaceful nuclear activities.

Japan, as a party to the NPT, has had an IAEA NPT safeguards agreement in effect since December 2, 1977, which applies to all peaceful nuclear activities in Japan. Furthermore, as stated in the proposed Joint Communiqué on the Tokai Mura Agreement:

"The Government of Japan will continue to afford the IAEA full opportunity to apply safeguards effectively and efficiently at the Tokai Facility, including continuous inspection in accordance with the Japan-IAEA Safeguards implementation where feasible."

Moreover, under the U.S.-Japan Agreement for Cooperation, the U.S. has bilateral safeguards rights in the event that IAEA "safeguards acceptable to the Government of the United States of America are not applied..."

3. Whether the country in which the proposed activity will be conducted, if not a party to the NPT, will accept IAEA safeguards with respect to the project.

As indicated in (2) above, Japan is party to the NPT and has accepted IAEA safeguards on all its peaceful nuclear activities.

4. The relative significance of the proposed activity and availability of comparable assistance from other sources.

The dissolvers of the Tokai Mura reprocessing plant were fabricated out of 309 series stainless steel. However, in order to have leak proof welds when using 309 series stainless steel, the welds must be annealed (heated and then cooled slowly). This either was not done or not done adequately. The assistance that Bechtel seeks to provide is not significant as it was neither unique to, developed for, nor derived from a reprocessing facility and its operation and maintenance. Rather, it represents only the use of common industrial techniques and practices in a reprocessing facility. In addition, it is important to note that information needed to weld 309 series stainless steel, as well as any other series of stainless steel, is widely known and available in the world. Furthermore, there are hundreds of common industrial uses for 309 series stainless steel and it is widely available in the world. Finally, there are a number of companies in the world that have the capability to provide the full range of consulting services (either identical or comparable) on welding 309 series stainless steel that Bechtel seeks authorization to provide (Reference enclosure 1).

The repair of the Tokai Mura dissolver is unique because it must be done by remote means, e.g., by a robot, because of the high radiation levels in the dissolver room. However, the use of remote equipment for welding is not unique to a reprocessing facility but has been developed in recent years by a number of countries for many industrial applications, including welding. These uses range from the routine (remote welding equipment on an automobile production line for economic and quality control reasons) to the hazardous (remote welding equipment for deep-sea applications on oil rigs, pipelines, etc.) Hitachi is one of the pioneers in remote equipment and will be using its knowledge and experience to develop or adapt remote equipment according to the particulars of the Tokai Mura dissolver room and dissolver. In addition, Hitachi is one of the leading architect-engineers in Japan for the construction of nuclear power plants and has an in-house capability to perform the welding service. However, Hitachi in essence wants Bechtel to "look over their shoulder" and provide a "second opinion" on the welding. DOE believes that there are many firms in the world that could provide this "second opinion."

5. Any other fact which may bear upon the political, economic, or security interests of the United States.

Political

On June 4, 1982, the President in his plutonium use policy decided that in certain cases the United States will offer to work out predictable,

programmatic arrangements for reprocessing and plutonium use for civilian power and research needs, in the context of seeking new or amended agreements as required by law. These agreements would involve only countries with effective commitments to non-proliferation, where certain advanced nuclear power programs are carried out, and where such activities do not constitute a proliferation risk and are under effective safeguards and controls. In addition, the President approved a new approach to granting long-term approvals in certain cases for the life of specific carefully defined programs, provided U.S. statutory criteria are met and the approvals will be valid only as long as these criteria and other conditions in the agreements continue to apply. DOE staff believe that Japan and the Tokai Mura facility fall within the scope of the President's plutonium use policy statement regarding amended agreements for cooperation and long-term approvals (for the Tokai Mura facility).

DOE staff also note that the President's plutonium use policy statement permits the export of reprocessing technology to Japan and Euratom countries. However, such exports could be done only if they are consistent with U.S. statutory requirements and with the London Nuclear Suppliers Guidelines. The Bechtel request does not represent the export of reprocessing technology; rather, it represents indirect assistance to the operation of a reprocessing facility pursuant to 10 CFR Part 810.7. Nevertheless, DOE staff believe the President's plutonium use statement includes direct and indirect assistance. As will be noted subsequently, DOE staff believe the Bechtel assistance can be performed consistent with U.S. statutory requirements. Finally, DOE staff do not believe the London Nuclear Suppliers Guidelines apply to the Bechtel request. The relevant section of the Guidelines pertains to technology and that definition is as follows:

"Technology means technical data in physical form designated by the supplying country as important to the design, construction, operation, or maintenance of enrichment, reprocessing, or heavy water production facilities or major critical components thereof, but excluding data available to the public, for example, in published books and periodicals, or that which has been made available internationally without restriction upon its further dissemination."

DOE staff do not believe this definition applies to the provision of a "second opinion" on a common industrial activity which is not unique to, originated from, or developed for reprocessing facilities and for which there is a great body of information available to the public.

In summary, DOE staff believes it would be inconsistent to extend the Tokai Mura agreement through December 31, 1984, to try to work out predictable programmatic arrangements for reprocessing in the context of amended agreements for cooperation with Japan, to seek new approaches for long-term approvals for certain programs and facilities in Japan, and to allow on a case-by-case basis exports of reprocessing technology to Japan but then to deny the Bechtel request.

#### Economic

While the fee that Bechtel would receive from Hitachi is company

and should not be considered an important factor. The company would not be placed in financial jeopardy if the request was not authorized.

### Legal

DOE staff have considered whether the Bechtel assistance constitutes sensitive nuclear technology because if it is then the criteria contained in Sections 127 and 128 must be met. Sensitive nuclear technology is defined as "any information (including information incorporated in a production or utilization facility or important component part thereof) which is not available to the public and which is important to the design, construction, fabrication, operation, or maintenance of a uranium enrichment or nuclear fuel reprocessing facility or a facility for the production of heavy water, but shall not include Restricted Data controlled pursuant to chapter 12 of the 1954 Act."

Repair of the dissolver at the Tokai Mura reprocessing plant will serve solely to remove the current limitation on its operating capacity. The technology to be employed in the repair is neither unique to, derived from, or developed for a reprocessing facility, but is common to any technical or industrial application involving 309 series, as well as any other series, stainless steel. (Reference enclosure 2 for a sample bibliography). Of particular significance is the existence in the open literature of a great body of information on the welding of 309 series stainless steel and the other related services Bechtel has requested authorization to perform. Furthermore, there are a number of U.S., as well as non-U.S., firms that can provide the same services, the "looking over the shoulder" and providing a "second opinion" that Bechtel has requested authorization to provide. In light of these considerations, DOE believes that this information is available to the public and that the definition of SNT does not apply.

### Security

DOE staff do not believe the security interests of the United States will be affected if the Bechtel request is approved. In addition, DOE staff note that physical security and safeguards of the Tokai Mura facility were reviewed in detail in 1981, when the Tokai Mura agreement was extended through 1984, and were found to be adequate. DOE staff are unaware of any changed circumstances that would affect that determination of adequacy.

### Other Factors

While the Department of State would be in a better position to judge, DOE staff believe that it is important for the U.S. to approve the Bechtel request. It would assist in establishing a positive climate in which to seek to negotiate amended agreements for cooperation and long-term programmatic approvals. It would also help establish the credibility of the U.S., with Japan and Euratom, that we will approve assistance to selected reprocessing programs provided our statutory and other conditions are met and that we are not going to try to inhibit their programs. Denying the Bechtel request could reduce U.S.

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credibility as it allow the Japanese and Euratom countries to question whether the U.S. would live up to its new agreements, enter into long-term approvals and allow exports of reprocessing technology if it would not authorize indirect assistance of an inconsequential nature.

DOE Staff Recommendation

DOE staff propose to forward to the Secretary of Energy for his determination a recommendation that the Bechtel request be approved as not being inimical to interests of the United States.

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- Sprcraft, New Berlin, Wis. (A)
- Stearns Roper Manufacturers Inc., Denver, Colo. (A, AT)
- Sulzer Brothers Ltd., Winterthur, Switzerland (EB)
- Telodyne Brown Engineering, Decatur, Ala. (A, S)
- Thames Valley Steel Corp., New London, Conn. (A, S, WC)
- "J-L" Filters Ltd., Cambridge (Cont), Canada
- Toronto Copperwelding International Ltd., Scarborough, Ontario, Canada (A)
- TRW, Nelson Div., Lorain, Ohio (S)
- Lidcombe Sweden AB, Power Plant Equipment, Karlskrona, Sweden (P)
- Undersea Systems Inc., Bayshore, N.Y. (A, P)
- Underwater Construction Corp., Essex, Conn.
- Underbray Corp., Covington, Ohio (A)
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- Whittinghouse Electric Corp., Pittsburgh, Pa (CEB)
- Wiemer & Buckler Contracting Engineers, Sacramento, Calif
- Winnard S. Wright Construction Co., Seattle, Wash
- WSF Industries, Inc., Tonawanda, N.Y.

## 9530 Well-Logging Equipment

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- Apac Nuclear Inc., Levittown, N.Y.
- D'Appolonia Consulting Engineers, Inc., Pittsburgh, Pa
- ECG-G Ortec Inc., Oak Ridge, Tenn.
- The Harshaw Chemical Co., Solon, Ohio
- IIT Corp., San Diego, Calif
- Eastern Sciences Corp., Colorado Springs, Colo
- LND, Inc., Oceanside, N.Y.
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- Nuclear Research Corp., Southampton, Pa
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- Science Applications, Inc., La Jolla, Calif
- Teledyne Powder Alloys, Chilton, N.J.

## Whip Restraints, Pipe - see Pipe Whip Restraints

## Whole-Body Monitors - see Monitors, Radiation, Personnel

## Wind Monitoring - see Environmental Monitoring

## Windows, Bullet-Resistant - see Screens, Structures

## 9580 Windows, Radiation-Shielded

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- R. V. Han) Div., Door Man Mfg. Co., Royal Oak, Mich
- Industrial Engineering Works, Trenton, N.J
- Janusz Glassworks Schott & Gen., Optical Div., Optical Glass Sales Dept., Mainz, FRG
- Keene Corp., New York, N.Y.
- Keene Corp., Res Proof Div., Norwalk, Conn
- Metals Thermal & Mechanical Group, Edison, N.J
- Nippon Kagaku K.K., Tokyo, Japan
- Nuclear Associates, Carlisle, Pa
- Nuclear Lead Co., Inc., Oak Ridge, Tenn
- Nuclear Pacific, Inc., Seattle, Wash
- Nuclear Power Outfitters, McHenry, Ill
- Nuclear Shielding Supplies & Service, Inc., Lauderdale-by-the-Sea, Fla
- Nuclear Shielding Supplies & Service of Canada Ltd., Longueuil, Quebec, Canada
- Nuclear Sources & Services, Inc., Houston, Tex
- Nuclear Supply Co., Washington, D.C.
- Overly Manufacturing Co., Greensburg, Pa
- Panax Nuclearonics Ltd., Redhill, Surrey, U.K.
- Ridge Instrument Co. Inc., Tucker, Ga
- Schott Optical Glass Inc., Duryea, Pa
- SOVIS, La Ferme/S/S Jouarre, France

## 9585 Wipers, Wiping Cloths

- DuFon Disposables, Inc., Easton, Md
- Durlab Inc., Colton, Tex

- Intermediate Uniform Services Corp., Grafton, Pa
- Intermediate Uniform Services Corp., Mansfield, Penna
- Intermediate Uniform Services Corp., Indian Orchard, Mass
- Intermediate Uniform Services Corp., Springfield, Mass
- Intermediate Uniform Services Corp., Sunnyside, N.M.
- Intermediate Uniform Services Corp., Franklin, Ohio
- Intermediate Uniform Services Corp., New Kensington, Penn
- Intermediate Uniform Services Corp., Bloomington, Wash
- Industrial Industrial Supply, Inc., Manchester, Conn
- Nuclear Power Outfitters, McHenry, Ill
- Regal Manufacturing Co., Inc., Chicago, Ill
- Schenck-Messmann Co., Pittsburgh, Pa
- Tri-State Industrial Laundry, Inc., Union, N.Y.
- WCA Wear Corp., Inc., Cleveland, Ohio

## 9590 Wire-cable size Cable

- CE Copper, Enamelled
- F Fuse
- I Insulated-Expanded Category size Index to Categories
- IS Insulated, Signal
- SW Insulated, Switchboard
- IT Insulated, Thermocouple
- M Magnet
- MS Metal-Shielded
- NM Nickel, Monel & Nickel-Chromium
- P Platinum & Platinum-Titanium
- RF Refractory
- RS Resistance
- SP Spring
- SU Superconducting
- T Thermocouple

- Aluminum Company of America, Pittsburgh, Pa (M)
- American Insulated Wire Corp., Pomona, B.I. (IS, SW, IT)
- Alconco Industries Wire and Cable Div., Greenwich, Conn (CE, SW, IT, M, MS, T)
- Anderson Cryogenics Inc., Newville, Mass (SU)
- AR Industries, Inc., Franklin Park, Ill (IT, MS, T)
- Atlas Alloys, Esoteric, Ontario, Canada (FM)
- Atomergic Chemicals Corp., Plainview, N.Y. (SU)
- The Babcock & Wilcox Co., Augusta, Ga (RF)
- Bayox, Inc., Oakland, Calif
- BBC Aktiengesellschaft, Brown Boveri & Cie., Baden, Switzerland (SU)
- Boston Insulated Wire & Cable Co., Connector Systems, Santa Rosa, Calif (I, MS, T)
- Braz Metallurgical-Chemical Co., Newswon, Pa (NM, P)
- Brown Boveri & Cie Aktiengesellschaft, FRG (SU)
- Brown Boveri Corp., North Brunswick, N.J. (SU)
- Carpenter Technology Corp., Carpenter Steel Div., Reading, Pa (NM)
- Continental Wire & Cable, York, Pa (I, T)
- Control Products Corp., Chicago, Ill (MS, RS, T)
- General Cable Co., Greenwich, Conn (I, IS, SW, MS)
- Clay S. Gordon Co., Richmond, Ill (IT, T)
- ITT Supramant Div., Canton, Mass (T)
- Kawachi Berylico Industries, Inc., Reading, Pa (SU)
- Kobe Steel, Ltd., Tokyo, Japan (SU)
- Lexco Industries, Inc., New York, N.Y. (CE, I, NM, T)
- Metal Goods, St. Louis, Mo (NM)
- Sherwood Moore and Co., Dalton Div., Aurora, Ohio (I, T)
- Novoweld Corp., Cornwall Bridge, Conn (T)
- The Oboluse Co., Raritan, N.J. (I, IS, SW, IT, MS, NM, RS, T)
- Omega Engineering, Inc., Stamford, Conn (IT, T)
- Puchney Uppin Kuhlmann, Branche Nucleaire et Industrielle Divisions, Paris, France (CE, I, RS, T)

- Phillips Cable Ltd., Advertising Dept., Brockville, Ontario, Canada (F, IS, SW, IT, MS, SU, T)
- Precision Bound Products, Danvers, Mass (SP)
- Reactor Experimenters, Inc., San Carlos, Ca
- East Manufacturing Co., Englewood, Ca
- Rowe Industries, Toledo, Ohio (IS, SW)
- Sotter, Sarcelles, France (IT, MS)
- E. J. Stephens Company, East Hartford, C
- Stranach, Red Wing, Minn
- Techstat Co., Inc., Rahon, Pa (IM, RS)
- Teledyne Advtec, Madison, N.C. (GB)
- Teledyne Instruments, Elm City, N.C. (I, IS, SW, IT, MS, T)
- Teledyne Wire Chasing Agency, Albany Or THOMSON-CSF, Paris, France
- Ulrich Stainless Steels & Special Metals, North Platte, Conn (NM)
- United Mineral & Chemical Corp., New York, N.Y. (CE, MS, SU)
- Henry Wiggin & Co., Ltd., Norfolk, U.K. (IM, RS, SP)

## 9600 Workbenches, Maintenance, Po

- Overbake-Kann Co., Cleveland, Ohio
- Proto-Power Management Corp., Groton

## 9640 Work Platforms, Mobile

- Kot Don Enterprises, Inc., Los Angeles
- Leitner Syndicat, Luxembourg pour l'Industrie Nucleaire, Scaillon, Luxemb

## 9645 Wrenches, High-Torque

- The Babcock & Wilcox Co., Power Generation Group, Barbours, Ohio
- Dresser Industries, Dallas, Tex
- Power-Dyne Div., Middletown, Conn
- Raymond Engineering Inc., Power-Dyne, Middletown, Conn

## 9650 Wrenches, Hydraulic Ratchet

- McMaster-Carr Supply Co., Chicago, Ill
- Power-Dyne Div., Middletown, Conn
- Raymond Engineering Inc., Power-Dyne, Middletown, Conn
- Trouva) & Cauvin, Technique Industrielle

## 9670 X-Ray Diffraction Apparatus

- Cambert Industries Inc., Nuclear Power, Meriden, Conn
- ECG-G Ortec Inc., Oak Ridge, Tenn
- The Harshaw Chemical Co., Solon, Ohio
- Lambda Research, Inc., Cincinnati, Ohio
- Mech-Tronics Nuclear, Addison, Ill
- Nuclear Enterprises Ltd., Edinburgh, S
- Philips Electronic Instruments, Inc., N.J.
- Pye Unicam Ltd., Cambridge, U.K.
- Quartz Products Corp., Plainfield, N.J
- SOVIS, La Ferme/S/S Jouarre, France
- Structure Probe, Inc., West Chester, Pa
- Tracor Northern, Middletown, Mo

## Zinc Anodes - see Anodes

## 9690 Zirconium

- Atomergic Chemicals Corp., Plainview
- The Babcock & Wilcox Co., New Orleans

TYPICAL BASELINE INFORMATION SOURCES FOR TOKAI LEAK REPORT JOB

1. Welding Journal, American Welding Society, December 1979  
"Solidification of Austenitic Stainless Steel Weldments: Aposed Mechanism"  
J.C. Lippold, V.S. Savage
2. Welding Research Journal, American Welding Society, January 1982  
"Solidification, Cracking and Analytical Electron Microscopy of Austenitic Stainless Steel Weld Metal"  
M.J. Cuslak, A.M. Ritter, W.S. Savage
3. Welding Journal, American Welding Society, March 1982  
"Hot Cracking Susceptibility of Austenitic Stainless Steels"  
T. Ottawa, E. Tsunetomi
4. Welding Journal, American Welding Society, August 1980  
"Welding Variables and Micro fissuring Austenitic Stainless Steel Weld Metals"  
T.G. Gooch, J. Honeycomb
5. Welding Journal, American Welding Society, August 1980  
"Hot Cracking Resistance of Austenitic Stainless Steel Weld Metals"  
C.D. Lundin, C.T.D. Chou, C.J. Sullivan
6. Private communication ARC Machines Inc. letter to Bechtel, June 22, 1981  
Manufacturer's Catalog Data: T.IG Remote Welding Equipment  
Brett N. Lewis, Engineering Manager

These information sources were selected as typical of a very large number that form the technological background of the experts to be employed on this job. A more extensive list would include standard textbooks and handbooks of metallurgical, welding and mechanical engineering and extensive research literature.

ATTACHMENT B



# ADJUDICATORY ISSUE

(Affirmation)

SECY-83-228A

July 19, 1983

COMMISSION LEVEL  
DISTRIBUTION ONLY

For: The Commission  
From: Martin G. Malsch, Deputy General Counsel  
Subject: DISMISSAL OF SELF-POWERED LIGHTING  
PROCEEDING

Discussion: By order issued June 30, 1983 (Attachment 1), the Commission indicated that it had adopted the NRC staff's suggestion in SECY-82-489 to change the agency's policy and allow the distribution of illuminated gunsights to the general public. In addition, the order indicated that within thirty days the NRC staff should reassess its licensing action of August 6, 1982, renewing the license of Self-Powered Lighting with a restriction that would not allow such general distribution. In response to that order, on July 13, the NRC staff and Self-Powered Lighting filed a joint motion with the Commission to dismiss the pending informal adjudication as moot. (Attachment 2) According to the motion, the NRC staff now intends to amend SPL's license by deleting the restriction on distribution, thereby allowing SPL to distribute the gunsights generally, and SPL has agreed to accept such a license.

Contact:  
Paul Bollwerk, GC  
X-43224

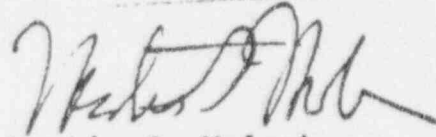
Information in this record was deleted  
in accordance with the Freedom of Information  
Act, exemptions 5  
FOIA 92-436

8402230432/12P

BBS/6

We believe

Recommendation:



Martin G. Malsch  
Deputy General Counsel

Attachments:

1. 6/30/83 Order
2. 7/13/83 Joint Motion  
to Dismiss
3. Draft Order

Commissioners' comments or consent should be provided directly to the Office of the Secretary by c.o.b. Monday, August 1, 1983.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Tuesday, July 26, 1983, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

This paper is tentatively scheduled for affirmation at an Open Meeting during the Week of August 1, 1983. Please refer to the appropriate Weekly Commission Schedule, when published, for a specific date and time.

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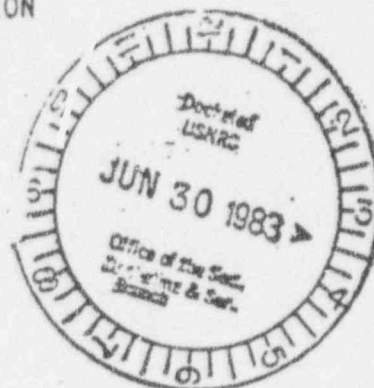
ATTACHMENT 1

066

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

Commissioners:

Nunzio J. Palladino, Chairman  
Victor Gillinsky  
John F. Ahearne  
Thomas M. Roberts  
James K. Asselstine



In the Matter of  
SELF-POWERED LIGHTING, INC.  
(Byproduct Materials License)

SERVED JUN 30 1983

Docket No. 30-9842

ORDER

In SECY-82-489, the NRC staff recommended to the Commission that the agency's policy with regard to the distribution of gunsights illuminated by byproduct material be revised to allow general, unrestricted distribution unless some radiological health and safety hazard is involved.<sup>1</sup> The Commission has decided to accept that recommendation. Since a central issue in this pending adjudication concerning the renewal of the license of Self-Powered Lighting, Inc., (SPL) to distribute illuminated gunsights is whether SPL is entitled to a license for unrestricted distribution, it is apparent that its renewal request

<sup>1</sup>In a January 12, 1983 letter responding to a Freedom of Information Act request by the participants to the proceeding for a copy of SECY-82-489, the Office of the General Counsel indicated the Commission's intent to release that paper. Copies of SECY-82-489 are being served on the participants along with this Order.

should be considered in light of this policy change.<sup>2</sup> Accordingly, within thirty days of the date of this Order, the NRC staff should reassess its licensing action of August 6, 1982, in light of this change in policy and report to the Commission regarding what further licensing action it believes is appropriate. Upon receipt of that report, the Commission will determine what further action, if any, is necessary with regard to this proceeding.<sup>3</sup>

Commissioner Ahearne dissents from this order and his dissenting views are attached. Commissioner Gilinsky did not participate in this decision.

It is so ORDERED.



Dated at Washington, DC,  
this 30th day of June, 1983.

For the Commission

*Samuel J. Chilk*  
SAMUEL J. CHILK  
Secretary of the Commission

<sup>2</sup> Although there is some question about whether SPL's renewal application sought a license for unrestricted distribution, it seems apparent from its representations before the Commission that this is what it desires and, under the circumstances, we believe its renewal request should now be considered as one for unrestricted distribution.

<sup>3</sup> If, upon further consideration, the staff finds that it can accommodate SPL's request for a license for unrestricted distribution, the Commission certainly would entertain a joint motion to dismiss this proceeding as moot.

## DISSENTING VIEWS OF COMMISSIONER AHEARNE

I am still concerned about our change in position. I note we essentially never address the question of "usefulness" -- which remains an issue. For example, the Federal Radiation Council guidance as approved by the President<sup>1</sup> directs:

"There should not be any man-made radiation exposure without the expectation of benefit resulting from such exposure. Activities resulting in man-made radiation exposure should be authorized for useful applications provided in [sic] recommendations set forth herein are followed."

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<sup>1</sup>"Federal Radiation Council: Radiation Protection Guidance for Federal Agencies," 25 Fed. Reg. 4402 (May 18, 1960) ("approved for the guidance of Federal agencies" by President Eisenhower on May 17, 1960 and still in effect at this time).

ATTACHMENT 2







UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

**DRAFT**

SELF-POWERED LIGHTING, INC.  
8 WESTCHESTER PLAZA  
ELMSFORD, NEW YORK 10523

License No. 31-15819-01E  
Amendment No. 02

In accordance with Commission Order dated June 30, 1983, License Number 31-15819-01 is amended in its entirety to read as follows:

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, 10 CFR Section 32.22 and application dated November 30, 1978, as amended by letter dated September 21, 1979; a license is hereby issued to Self-Powered Lighting, Inc., to distribute tritium (hydrogen 3) contained in gunsights mounted on hand guns to persons exempt from licensing in accordance with 10 CFR Section 30.19.

This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended and other applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect, and is subject to the following conditions:

1. The licensee shall file periodic reports of distribution in accordance with 10 CFR Section 32.35.
2. The renewal application dated November 30, 1978, and the letter dated September 21, 1979, from Self-Powered Lighting, Inc. to the USNRC are specifically incorporated into the license.
3. This license does not authorize possession of licensed material.
4. This license shall expire on August 31, 1987.

FOR THE NUCLEAR REGULATORY COMMISSION

Material Licensing Branch  
Division of Fuel Cycle and Material Safety

Date \_\_\_\_\_



ATTACHMENT 3