CARELLA, BAIN, GILFILLAN & RHODES COUNSELLORS AT LAW GATEWAY I, NEWARK, N. J. 07102 A PROFESSIONAL CORPORATION CHARLES C. CARELLA CABLE ADDRESS JOHN N. BAIN TECHLAW JOHN G. GILFILLAN III R GALE RHODES, JR. TELEX NO. 139318 HERBERT M. RINALDI LOUIS E. MARN INY BAR ONLY! TELEPHONE. PETER G. STEWART (201) 623-1700 ELLIOT M. OLSTEIN HENRY G. FERRAIOLI TELECOPIER: CLIFFORD G. FRAYNE 12011 623-1700 January 13, 1981 JEFFREY L MILLER GENE WARZECHA ANDREW V. BALLANTINE NEIL G. MARKOWITZ Edward E. Shomaker, Esq. Office of the Executive Legal Dept. Nuclear Regulatory Commission Washington, D. C. 20555 Epicor Confidential Disclosure Agreement Dear Ed: Enclosed please find the original and four copies having original signatures, of the Confidential Disclosure Agreement between Epicor and the GPU, the NRC and AUI. All signatures have been obtained on each of the documents with the exception of John Martin of the Office of Nuclear Material Safety and Safeguards. I would note that after having received communications from AUI, Dr. Gangwer's name has been deleted from the documents and he will not be a signatory thereto. Would you kindly have Mr. Martin execute all five copies of the Agreement. You may then retain one for your files and I would request you return the ciner four to me so that I may distribute them to GPU, A'I, and Epicor. If you have any questions, do not hesitate to communicate with me. Very truly yours, CARELLA, BAIN, GILFILLAN & RHODES, P.A. CGF/las Encls. 8107240119 810113 PDR ADOCK 05000320

### CONFIDENTIAL DISCLOSURE AGREEMENT

This Agreement made this 12th day of Nov 1980 by and between EPICOR, INC., a New Jersey corporation having its principal place of business at 1375 East Linden Avenue, Linden, New Jersey (hereinafter EPICOR), and GPU SERVICE CORPORATION, a corporation of the State of Pennsylvania having its principal place of business at 100 Interpace Parkway, Parsippany, New Jersey (hereinafter GPUSC), as the agent of and on behalf of METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND JERSEY CENTRAL POWER AND LIGHT COMPANY owners of THREE MILE ISLAND NUCLEAR GENERATING STATION, Middletown, Pennsylvania, (hereinafter TMI), the UNITED STATES NUCLEAR REGULATORY COMMISSION an independent regulatory commission of the government of the United States of America, having its principal place of business in Washington, D.C. (hereinafter NRC) and ASSOCIATED UNIVERSITIES, INC., a corporation having its principal place of business at Upton, Long Island (hereinafter AUI).

WHEREAS, EPICOR has heretofore sold to GPUSC ion exchange resins which GPUSC has employed to decontaminate water containing both radioactive and non-radioactive contaminants at TMI; and

WHEREAS, GPUSC has employed some of the aforesaid ion exchange resins as well as complementary equipment for the purpose of removing intermediate level
radioactive contamination from water at TMI resulting in
containers having strongly radioactively contaminated ion
exchange resin therein (hereinafter PREFILTER LINERS);
and

WHEREAS, the NRC has requested that GPUSC provide certain information to the NRC respecting the said PREFILTER LINERS as initially detailed in its communications of May 15, 1980, a copy of which is attached hereto as Exhibit A; and

WHEREAS, GPUSC has requested the aforementioned information respecting PREFILTER LINERS from EPICOR as detailed in its communication of June 23, 1980, a copy of which is attached hereto as Exhibit B; and

WHEREAS, the NRC on July 25, 1980 supplemented its aforesaid inquiry respecting the said PREFILTER LINERS with certain detailed questions, a copy of which is attached hereto as Exhibit C; and

WHEREAS, CPUSC and NRC have asserted a need for the aforementioned information for the purpose of independently assessing potential hazards to the public health and safety involved in the current short term storage of the PREFILTER LINERS at TMI, the removal and disposal of contaminated ion exchange resin therefrom, and the solidification of said resin for purposes of transport of the solidified resin to a permanent storage site (hereinafter handling and storage); and the NRC proposes to disclose the aforesaid information to AUI as a consultant for NRC; and

whereas, the parties are mindful of their respective responsibilities to the public safety and desire to expeditiously assess the potential hazards, if any, involved in the handling and storage of PREFILTER LINERS and for that purpose have met on September 5, 1980 to negotiate this agreement to protect the proprietary interests of EPICOR as hereinafter set forth.

NOW, THEREFORE, for and in consideration of the mutual covenants hereinafter set forth, it is agreed as follow:

1. NRC, GPUSC and AUI jointly and severally acknowledge that the information sought from EPICOR and to be disclosed hereunder to NRC, GPUSC and AUI generally and specifically as set forth in Exhibit C is proprietary to EPICOR, constitutes in its individual and collective elements valuable trade secrets belonging exclusively to EPICOR the disclosure or misappropriation of all or any

portion of which would be immediately and irreparably damaging to EPICOR and would not be disclosed by EPICOR to NRC, GPUSC or AUI except under the terms of this agreement or the order of a Court of competent jurisdiction; provided however, the obligation of confidentialty hereunder shall not apply to such information disclosed hereunder which hereafter appears in a printed publication substantially in its entirety or which is hereafter disclosed to GPUSC, NRC or AUI by a third party without a breach of any obligation of confidentiality owed by such party or parties to EPICOR.

- 2. Forthwith upon execution of this agreement, EPICOR will disclose to GPUSC, and NRC in writing the following information:
  - including inorganic ion exchange resins in PREFILTER LINERS at TMI by generic chemical name of each resin; the relative volume of each resin in each said liner; collectively the maximum and minimum particle size of resins in each liner; the composition by generic chemical name of the substrate of each resin and the percentage of crosslinking of each such resin.

- b. The identity by generic chemical name of compositions of matter other than ion exchange which EPICOR intentially included in each liner, except for matter, if any, included by virtue of pretreatment of the resin by EPICOR which will be disclosed under paragraph 6 (b) hereof:
- 3. The parties hereto agree that no portion of the information disclosed pursuant to the terms of Paragraph 2 of this agreement will be circulated or otherwise made available to persons within the respective agencies, commissions or organizations except as hereinafter set forth and that its disclosure will be limited solely to the persons now occupying the positions identified in Paragraph 4 hereof within the respective agencies, commissions or corporations and to such other persons who shall succeed to such position provided that the identity of said successor is first identified to EPICOR in writing by the concerned party hereto and EPICOR provides written approval to NRC, GPUSC or AUI of the disclosure to said person as successor to the said position.
- 4. Pursuant to Paragraph 3 hereof, the disclosure by EPICOR shall be limited solely to the following identified persons now occupying the following identified

positions in each of GPUSC, NRC and AUI and to such successors of such persons as EPICOR hereafter may approve in writing.

#### GPUSC

Manager of Process Support; presently
Mr. R.J. McGoey;
Chemical Engineer, Process Support
Group; presently Cindy Good;
Director, TMI Unit II; presently Gale
Hovey;
Supervisor of Chemical Section, GPU
Laboratories; presently Ken Frederick;
Staff Engineer Radiological Controls
Group; presently John Daniel;
Solidification Supervisor; Process
Support Group; presently E. Showalter.

### NRC

Director, TMI Program Office; presently Dr. Bernard Snyder; Deputy Director, TMI Program Office; presently Lake Barrett; Section Leader for Safety Review Section; presently Dr. Richard Weller: Section Leader, Technical Review Section, presently Dr. Ronald Bellamy. Office of Nuclear Material Safety & Safeguards; Director of the Division of Waste Management; presently John Martin; Office of Nuclear Material Safety & Safequards; Deputy Director of Waste Management; presently Robert Browning; Division of Waste Management; Mr. Timothy Johnson

# AUI

Director of Nuclear Waste Management Division; presently Dr. Donald Schweitzer; Group Leader for Low Level Waste Technical Assistance; presently Dr. Richard Davis; Group Leader for Low Level Waste Research; presently Alan Weiss; Research Chemists Division of Nuclear Waste Management; presently Dr. Thomas Gangwer and Dr. Robert Barletta

EPICOR will disclose to GPUSC, NRC and AUI, through a full and frank limited attendance meeting with JOSEPH LEVENDUSKY, President of EPICOR, the confidential and proprietary information set forth in Paragraph 6 hereof; the persons from GPUSC, NRC and AUI who will attend the said limited attendance meeting to review the aforesaid disclosure will first be identified to EPICOR in writing by the respective parties for EPICOR's approval and upon said approval, their identities will be attached to this agreement in advance of said meeting as Exhibit D; the aforesaid meeting will be at the offices of Carella, Bain, Gilfillan & Rhodes, P.A., Gat'eway I - Suite 2404, Newark, New Jersey 07102, at a date and hour mutually to be agreed upon; it is contemplated that the disclosure will be made orally with supporting written documentation; all written documentation presented by JOSEPH LEVENDUSKY will be retained by JOHN N. BAIN in an identifiable file at the offices of Carella, Bain, Gilfillan & Rhodes, P.A.

and the attendees may have access to this documentation in the future at mutually convenient times; the attendees shall not record the disclosure by tape or other electronic devices or the like nor copy the said documentation, however they may take notes at this meeting and retain the same under the same level of protection afforded the disclosure in paragraph 2.

- 6. Pursuant to Paragraph 5 hereof, LEVENDUSKY will:
  - a. disclose the functional group(s) of each ion exchange resin in each liner; the exchange capacity of each said ion exchange resin; and the form in which each said resin is used;
  - disclose any and all specific pretreatment used for the resin beds;
  - c. disclose the source of any nitrate present in the ion exchange resin or supplied to GPUSC;
  - d. disclose the instructions given by EPICOR to GPUSC for the specific location which each ion exchange resin in each liner is to have when charged with resin; and the expected

radioactivity density in curies per cubic cost in each resin after use to the best of LEVENDUSKY's belief;

- e. disclose all information given by EPICOR respecting all on-stream conditioning of the resin in the liners before passing radioactive, contaminated waste therethrough;
- f. disclose LEVENDUSKY's analysis with respect to the pH of residual liquid in each liner after dewatering by GPUSC as a function of time, storage and radiation effects and any experience or data which confirms the analysis.
- g. disclose LEVENDUSKY's analysis respecting any built-in beffering capacity in each liner and any experience or data which confirms the analysis.
- 7. GPUSC, NRC and AUI acknowledge and agree that EPICOR and LEVENDUSKY, on EPICOR's behalf, make the disclosures or render opinions hereunder only to the best of it, his or their knowledge, information and belief; no actual or implied warranties or guaranties of accuracy or completeness are given by it, him or them and the position of EPICOR and LEVENDUSKY with respect to the information

or opinions given hereunder is that of an involuntary provider at the request of GPUSC, NRC and AUI and not that of a consultant.

8. NRC, GPUSC and AUI agree to receive the disclosure of the information both written and oral which is the subject of this agreement in confidence and to hereafter retain such information in confidence; NRC, GPUSC and AUI further agree that no one other than the individuals identified in Paragraph 4 hereof or their successors who have been approved by EPICOR will be given access to all or any portion of the information disclosed pursuant to Paragraph 2 hereof without the prior written approval of EPICOR; provided however that the NRC representatives listed in paragraph 4 hereof shall be empowered to brief and disclose to the NRC Commissioners in closed session the information covered by the this Agreement; with respect to the NRC any and all reports, memoranda, writings, documents or other tangible things generated by NRC, GPUSC and AUI, or any of them, which include any portion of the information disclosed hereunder pursuant to Paragraph 6 hereof will with respect to the NRC be retained only in the files of either or both of the aforesaid Director, TMI Program Office, presently Dr. Bernard Snyder and Deputy Director of Waste Management, presently Mr. Robert Browning or their approved successors and not otherwise; with respect to GPUSC, only in the files of R.J. McGoey and Gale Hovey; and with respect to AUI in the files of Dr. Donald Schweitzer; and further, ich reports, memoranda, writings, documents or other tangible things shall not be made available or accessible to other than those persons who attended the limited attendance meeting aforesaid or their approved successors provided further that the persons identified in Paragraph 4 hereof and those persons in attendance at the limited attendance meeting, and their respective approved successors shall, under no circumstances, make an oral disclosure of all or any portion of the information disclosed by EPICOR hereunder or (except for the NRC) the fact of its existence; and further that if, and when any disclosure is made as provided herein, it will be made in writing only; provided further, that Mr. Joseph Levendusky shall have access to all reports, memorada, writings, documents or other tangible things generated by NRC, GPUSC, and/or AUI or their subcontractors which include and/or are derived in whole or in part from the information disclosed by EPICOR hereunder.

9. At no time shall copies of writings disclosing information hereunder by EPICOR, whether generated by EPICOR or otherwise, be duplicated unless on an absolute necessity basis and only under the following terms and conditions: all copies shall be identified by a number running consecutively from one (1) by each of the parties making such copies, a record of the making of such copies shall be maintained showing the date each copy was made, the person authorizing the making of such copy, the location and accessibility of such copy and the final disposition of the same, all of which shall be made available to EPICOR hereunder at EPICOR's request; the circulation and availability of all such copies shall be no broader than permitted the original hereunder.

10. In the event that NRC, GPUSC or AUI determine that it must disclose all or any portion of the information disclosed by EPICOR hereunder to persons other than those permitted hereunder, such subsequent disclosure shall only be in writing and NRC, GPUSC or AUI, as the case may be, shall give EPICOR forty-five (45) days written notice of its intention to so do except in the event that a court shall order such disclosure in a shorter time, which notice shall include the name and address of the person or persons to whom such disclosure is intended, the manner in which such disclosure is to be made including confidentiality and the reasons why such

disclosure must be made; this paragraph shall include disclosures under any Freedom Of Information Act or under the direction of any court, tribunal, commission or agency of any government, federal, state or local or any other entity; NRC, GPUSC and AUI concede EPICOR's right to seek judicial, administrative or executive relief respecting such disclosure, including the jurisdiction of the United States District Court to order that such disclosure not be made or be made only under terms and conditions ordered by such Court.

- 11. GPUSC, NRC and AUI further agree to destroy every copy except the original of all writings covered by this agreement when no longer needed.
- that EPICOR and LEVENDUSKY are providing the aforesaid information pursuant to the protection of this agreement for the purposes of allowing the NRC and its consultant, AUI, to independently assess the potential hazards involved in handling and storage of the PREFILTER LINERS, as set forth herein, employed by GPUSC at TMI. It is the intention of all of the parties to this agreement and the identified participants hereto that a high level of cooperation and candidness be maintained and confidentiality preserved. Accordingly, GPUSC, NRC and AUI look

forward to the continued cooperation of EPICOR and LEVENDUSKY under this agreement until the purposes of this agreement are achieved.

- 13. Nothing in this agreement shall be construed to limit in any way the powers, obligations and responsibilities of the NRC as prescribed by law.
- 14. All warranties heretofore extended to GPUSC and/or the owners of TMI, by EPICOR shall remain in full force and effect and not be deemed altered by this Agreement.
- sure to be made by EPICOR hereunder is not voluntary on the part of EPICOR; all parties hereto further agree that the disclosure hereunder by EPICOR is deemed to have been made under subpoena issued to EPICOR by the NRC as enforced by an Order of a Court of Competent Jurisdiction and that EPICOR has agreed not to require the issuance of such a subpoena and Order of Enforcement at the request and for the convenience of the NRC.

NRC

Snyder Director, TMT Program Office Lake Barrett, Deputy Director TMI Program Office Dr. Richard Weller, Section Leader for Safety Review Section Dr. Ronald Bellamy, Section Leader, Technical Review Section John Martin, Office of Nuclear Muterial Safety & Safeguards, Director of the Division of Waste Management Robert Browning, Office of Nuclear Material Safety & Safeguards, Deputy Director of Waste Management BY Mmothy Johnson, Division of Waste Management GPUSC

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R. J. McGoey Manager of Proc	ess Support
Cindy Good Hitz Process Support	Chemical Engineer, Group
BY Sale Hovey, Dir	C. Harvy ector TMI Unit 11
BY Kenneth 1/7. Ken Frederick,	riderich Chemist Senior
GPU Laboratorie	s //
F. Scott Giacob Materials Techn	be, Supervisor of ology
BY Fard D. Showalt Waste Solidific	of ation
BY Robert Martin G	lass, Chemist Senior
AUI	
Dr. Thomas Gang	wer. Research
Chemist Divisio Waste Managemen	n of Nuclear

Dr. Donald Schweitzer, Director of Nuclear Waste Management Division Dr. Richard Davis, Group Leader for Low Level Waste Technical Assistance Alan Weies, Group Leader for Low Level Waste Research Dr. Robert Barletta, Research Chemist Division of Nuclear Waste Management EPICOR

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

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NRC/TMI-80-087

E. Duller /R. My Soe

will be assigned the responsibility of taking the action required by this letter. He will receive an Action Item Notification Including details in the near future.

Docket No.: 50-320

Mr. R. C. Arnold Senior Vice President 100 Interpace Parkway Parsippany, NJ 07054

Dear Mr. Arnoid:

Due Date:

MAY 5 0 1980

Subject: Evaluation of EPICOR-2 Wastes Under Projected Handling,

Storage, Transportation and Disposal Conditions

As you know, there are a number of alternative methods for handling, storage, transportation and disposal of the EPICOR-2 wastes. The Commission's Memorandum and Order dated October 16, 1979, directed Metropolitan-Edison to expeditiously construct a facility for solidification of these wastes. Metropolitan-Edison is presently investigating use of cement solidification. Regardless of the means ultimately proposed by Metropolitan-Edison, it is essential that the near term and long term performance of the resin liners and the ion exchange resins under the conditions projected to be encountered be analyzed and well understood. A recent letter status report from Brookhaven National Laboratory (BNL) on the leachability, structural integrity and radiation stability of organic ion exchange resins (copy enclosed) notes a number of concerns following preliminary analysis by BNL.

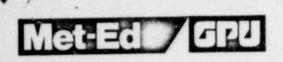
To assist us in understanding the performance capabilities of EPICOR-2 liners, it is important that the NRC staff have detailed drawings and specifications covering the fabrication, assembly and coating of the liners. The data shall include, but not limited to, the shop drawings used for manufacturing the parts, fabrication and assembly instructions, welding specifications, liner structural and process material specifications, coating material specifications, surface preparation and coating application procedures, quality control and testing procedures. The only documents available to the NRC staff to date have been essentially engineering sketches that do not indicate any liner internals nor do they cover many of the liner aspects that could be important determinants of performance for both short and long term periods.

With regard to the resin material, a phone conversation of May 7, 1980, between R. McGoey (GPU) and H. Lowenberg (NRC) indicates that an approximate analysis of resin performance under radiation conditions was carried out by your vendor, EPICOR, last year. We understand that no documentation of that work was or is now available, but that your staff is at this time undertaking such studies.

COPIES TO:

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Metropolitan Edison Company Post Office Box 480 Middletown, Pennsylvania 17057 717 944-4041

Writer's Direct Dial Number (717) 948-8112

June 23rd, 1980

Mr. J. Levendusky
Epicor, Incorporated
P. O. Box 608
1375 E. Linden Avenue
Linden, New Jersey 07036

RECEIVED JUN 2 6 1980

Year Mr. Levendusky:

The Nuclear Regulatory Commission (NRC) has requested GPU furnish detailed information about the Epicor II Radwaste System in use at Three Mile Island (TMI) Unit II. The attached lette: dated May 15th, 1980 is a copy of this request.

This letter documents our request to forward this information in an expeditious manner. Although this was requested verbally, it is necessary to emphasize the importance of providing this data. Specifically, please forward for each liner in use or projected for use in Epicor II. System

1. The quantity of media used for water cleanup

2. The composition of media

3. The precise form of each media (including any pretreatment, etc.)

4. The precise method of media introduction and placement

(mixed or in discrete layers, etc.)

5. An estimate of media loading with radionuclides, and 6. Any other aspects that can affect either short or long

term media performance.

As stated in the attached letter, the NRC staff plans to independently review the overall performance of the Epicor II liner/resin system and therefore this information is necessary. Realizing the proprietary nature of this data, the NRC suggests submittal under the provisions of 10 CFR 2.709.

This information was requested over one month ago in order to forward it to the NRC by May 30th, 1980. To date this information has not been received. It is again stressed the importance of providing this data immediately in order to be responsive to the NRC, and allow for an independent review of TMI II operations. Should you have any questions please contact me directly.

Very truly yours,

R. J. McGoey

Manager, Process Support

cc: (W/O att) J. J. Barton
" " S. Chaplin
" " E. Fuller
" " C. D. Good
" " G. K. Hovey
" " R. F. Wilson
File

VINE CO

The following specific questions are related to two general concerns. Any other specific information which would be relevant to permit independent assessment of these concerns should also be provided. The basis on which each response is made should be documented.

- Short term (up to 5 years) integrity of liners with dewatered resin contents. (i.e. effect of time on the liner contents and any resulting effect on the liner)
- Short term (up to 5 years) effect on liner contents with respect to ability to remove liner contents and solidify them.
- Resin Characteristics Prior to Use
- What are the specific resin types used?
  - a. Trade name, number and manufacturer
  - b. Type and form of resins, for example
    - 1. anion, cation, mixed bed
    - 2. be\_d, powdered (including mesh size)
    - specific functional groups .
    - 4. composition of substrate
    - 5. percentage of cross linking
    - exchange capacity
    - 7. in what form is the resin used (e.g., "form, Na form etc.):
- 2. Describe any and all specific pretreatments used for the resin beds.
  - a. In this context, what is meant by the term "depletion" as used in relation to the Hittman solidification test program?
- 3. Trade name, number, manufacture and/or the properties and characteristics of the specified inorganics used? Both ion exchange properties (as in I. (1b) above) and molecular seive properties are of interest.
- 4. What other materials both active and inert are included in each liner?
- II. Resin and Resin Mixes as They are Used in the EPICOR System
- What types and amount of the specific resins, inorganics, and other material are used in individual liners?
- If there is more than one type of ion exchange media in each liner, what are the amount of each liner, what are the amounts of each type and how are they arranged in each liner.
- 3. Is there any other material included in the liner which is expected to perform a function other than ion exchange? If so, describe the material, its intended function and location in the bed.

# III. Loading of EPICOR Liner Material

- 1. Describe any sources of nitrate present?
- 2. How are specific ions localized in the liners (specifically Cs and Sr)?
  - a. What are the expected (or measured) radial and axial distribution of these ions?
  - b. What is the activity density (Ci/ft3) in these layers. .
- 3. Describe any on-stream conditioning of the beds?
- Describe the pH of residual liquids of each liner as a function of time in storage.
- 5. Describe any built-in buffering capacity of the beds? -

# LIST OF ATTENDEES - DECEMBER 12, 1980 OFFICE OF CARELLA, BAIN, GILFILLAN & RHODES

NAME EMPLOYER

Dr. Bernard J. Snyder NRC/DIR. TMIPO

Lake Barrett NRC/TMIPO

Dr. Richard Weller NRC/TMIPO

Dr. Ronald Bellamy NRC/TMIPO

Robert Browning NRC/WM

Timothy Johnson NRC/WM

R. J. McGoey GPU

Cindy Good Hitz GPU

Gale Hovey GPU

Ken Frederick GPU

Earl D. Showalter MET ED/GPU

Dr. Richard Davis BNL

Alan Weiss BNL

Dr. Robert Barletta BNL

Joseph Levendusky PRES/EPICOR