

EXPORT LICENSE

NRC FORM 280
(9-87)

NRC LICENSE NO.

THIS LICENSE EXPIRES 31 January 1993

DCS/DF02

1/1

United States of America

Nuclear Regulatory Commission

XT08692

Pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974 and the regulations of the Nuclear Regulatory Commission issued pursuant thereto, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued

to the licensee authorizing the export of the materials and/or production or utilization facilities listed below, subject to the terms and conditions herein.

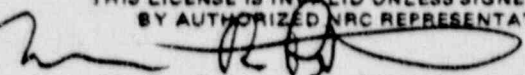
| | | | |
|---|---|--|--|
| LICENSEE | | ULTIMATE CONSIGNEE IN FOREIGN COUNTRY | |
| NAME | Cerac, Incorporated | NAME | Balzers AG |
| ADDRESS | 1316 West St. Paul Avenue Milwaukee, WI 53233 Attn: Ervin Colton | ADDRESS | Werk I, FL-9496 Balzers Liechtenstein |
| | | (For resale in Europe only to various customers for optical coating work.) | |
| INTERMEDIATE CONSIGNEE IN FOREIGN COUNTRY | | OTHER PARTIES TO EXPORT | |
| NAME | Natural AG | NONE | |
| ADDRESS | Internationale Transporte Zurich, Switzerland (For transport purposes only) | | |
| APPLICANT'S REF. No. Appl. dated 3 January 1990 | | COUNTRY OF ULTIMATE DESTINATION Liechtenstein | |

| QUANTITY | DESCRIPTION OF MATERIALS OR FACILITIES |
|------------|--|
| 113.0 kgs. | Thorium Contained in 150.0 kgs thorium flouride in granular form (for non-nuclear end use). |
| ////// | ////// END // |

Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954, as amended and the Energy Reorganization Act of 1974.

This license is subject to the right of recapture or control by Section 106 of the Atomic Energy Act of 1954, as amended and to all of the other provisions of said Acts, now or hereafter in effect and to all valid rules and regulations of the Nuclear Regulatory Commission.

THIS LICENSE IS INVALID UNLESS SIGNED BELOW BY AUTHORIZED NRC REPRESENTATIVE


 Marvin R. Peterson, Assistant Director
 for International Security, Exports
 and Materials Safety
 International Programs

DATE OF ISSUANCE FEB 9 1990

9002150080 900209
 PDR XPORT
 XT-8692 PDC

EXPORT LICENSE

APPLICATION FOR LICENSE TO EXPORT NUCLEAR
MATERIAL AND EQUIPMENT (See Instructions on Reverse)

| | | | | | | | | | | | | |
|---|--|--|--|--|--|---|--|--|--|---------------------------|--|----------|
| 1. APPLICANT'S USE | | 5. DATE OF APPLICATION 01-03-90 | | 3. APPLICANT'S REFERENCE | | 2. NRC USE | | 6. DOCKET NO. 11004256 | | 7. LICENSE NO. X108693 | | |
| 3. APPLICANT'S NAME AND ADDRESS | | | | | | 4. SUPPLIER'S NAME AND ADDRESS (Complete if applicant is not supplier of material) | | RIS | | | | |
| a. NAME Cerac, Inc. | | | | | | | | | | | | |
| d. STREET ADDRESS 1316 W. St. Paul Avenue | | | | | | b. NAME | | | | | | |
| c. CITY Milwaukee | | | | STATE WI | | ZIP CODE 53233 | | d. STREET ADDRESS | | | | |
| 6. TELEPHONE NUMBER (Area Code - Number - Extension) (414) 289-9800 | | | | | | c. CITY | | STATE | | ZIP CODE | | |
| 5. FIRST SHIPMENT SCHEDULED | | 6. FINAL SHIPMENT SCHEDULED | | 7. APPLICANT'S CONTRACTUAL DELIVERY DATE | | 8. PROPOSED LICENSE EXPIRATION DATE | | 9. U.S. DEPARTMENT OF ENERGY CONTRACT NO. (If Known) | | | | |
| per customer release | | per customer release | | | | 01-03-93 | | | | | | |
| 10. ULTIMATE CONSIGNEE | | | | | | 11. ULTIMATE END USE (Include plant or facility name) | | | | | | |
| a. NAME Balzers AG | | | | | | Balzers AG, Werk I, FL-9496 BALZERS Lichtenstein | | | | | | |
| b. STREET ADDRESS Werk I, FL-9496 BALZERS | | | | | | (For resale in Europe only to various customers for optical coating work) | | | | | | |
| c. CITY - STATE - COUNTRY Lichtenstein | | | | | | 11a. EST. DATE OF FIRST USE | | | | | | |
| 12. INTERMEDIATE CONSIGNEE | | | | | | 13. INTERMEDIATE END USE | | | | | | |
| a. NAME Natural AG | | | | | | | | | | | | |
| b. STREET ADDRESS Internationale Transporte | | | | | | | | | | | | |
| c. CITY - STATE - COUNTRY Zurich, Switzerland (for transport purposes) | | | | | | 13a. EST. DATE OF FIRST USE | | | | | | |
| 14. INTERMEDIATE CONSIGNEE | | | | | | 15. INTERMEDIATE END USE | | | | | | |
| a. NAME | | | | | | | | | | | | |
| b. STREET ADDRESS | | | | | | | | | | | | |
| c. CITY - STATE - COUNTRY | | | | | | 15a. EST. DATE OF FIRST USE | | | | | | |
| 16. NRC USE | | 17. DESCRIPTION (Include chemical and physical form of nuclear material, give dollar value of nuclear equipment and components) | | | | 18. MAX. ELEMENT WEIGHT | | 19. MAX. WT. % | | 20. MAX. ISOTOPE WEIGHT | | 21. UNIT |
| | | Thorium contained in 150.0 kilograms thorium fluoride, ThF ₄ , in granular form. | | | | 113.0 kg | | 75.3 | | 113.0 kg | | |
| 22. COUNTRY OF ORIGIN - SOURCE MATERIAL | | | 23. COUNTRY OF ORIGIN - SNM WHERE ENRICHED OR PRODUCED | | | 24. COUNTRIES WHICH ATTACH SAFEGUARDS (If Known) | | | | | | |
| France | | | France | | | ALL | | | | | | |
| 25. ADDITIONAL INFORMATION (Use separate sheet if necessary) | | | | | | | | | | | | |
| 26. The applicant certifies that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information in this application is correct to the best of his/her knowledge. | | | | | | | | | | | | |
| 27. AUTHORIZED OFFICIAL | | a. SIGNATURE Ervin Cotton | | | | b. TITLE Chairman | | | | | | |

900208004

CERAC incorporated

P.O. Box 1178, Milwaukee, WI 53201

XT08692
11004254

FAX# 414/289-9805

Date Feb. 2, 1990

Telex# 286122 (CERAC UR)

Page 1 of 1

Phone# 414/289-9800

ATTENTION OF: Betty Wright

FAX# 301-492-0395

COMPANY NAME: Office of International Programs

FROM: Dr. Ervin Colton

CERAC REF.# 5882

MESSAGE:

REPLY:

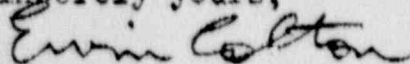
Dear Ms Wright:

This is to advise you that additional information below is given in addition to previous for our export license request, dated Jan. 3, 1990, for 113 kgs of contained thorium to Balzers Ltd. in Lichtenstein (Switzerland):

Balzers Ltd. is an old (50 years?) company producing vacuum equipment for optical coaters in addition to other similar industrial pieces. Our thorium fluoride is sold to them in small pieces packaged in small lots so that they do not handle it on receipt. They add their own labels and re-sell the material in small lots to coaters all over the world. Thorium fluoride is used primarily to coat lenses in lasers so that the light going through the lens is not absorbed. Thorium fluoride also is used with other materials to coat lenses for controlling light absorption. The thorium fluoride is evaporated in vacuum coaters, and the vapor condenses and coats a substrate, such as a lense. The final amounts of thorium fluoride on a given lense is in the millionths of an inch, in angstroms actually. The radiation thus coming from such a coated part is almost negligible.

I hope this helps you.

Sincerely yours,



Dr. Ervin Colton, Chairman and
Chief Chemist

INT'L SAFEGUARDS
EXPORT IMPORT

90 FEB-2 P3:32

RECEIVED
U.S. DEPT. OF ENERGY