Honeywell

October 6, 1986

Mr. Bill Adam
Materials Licensing Section
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60317

RECEIVED

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SUBJECT: Request to Amend Source Material License SUB-971 for Possession and Use of Material at Laserdyne Precision Services.

Dear Mr. Adam:

The following information is provided by Honeywell for the purpose of amending Source Material License Number SUB-971 involving the use and handling of depleted uranium at Honeywell, Twin Cities area locations. The intent of this amendment request is to update the license by identifying an additional location of material possession and use. It is further intended that this amendment request be applicable to our license renewal application dated June 24, 1984 (control number 23838).

The additional address at which the material will be possessed and used is Laserdyne Precision Services, 6690 Shady Oak Road, Eden Prairie, Minnesota 55344, hereafter referred to as Laserdyne. The Laserdyne facility is located in an area zoned as an industrial park. The area adjacent to the Laserdyne facility is occupied by U.S. West Direct, a distributor and assembler for communication systems and Furniture Brokers, Inc., a furniture wholesale firm. Fire protection at Laserdyne includes 100% coverage by a monitored automatic sprinkler system. A diagram of the Laserdyne facility delineating where the depleted uranium will be utilized is provided in Attachment 1.

The material usage at Laserdyne involves laser welding of non-radioactive components which are attached to solid depleted uranium metal (Attachment A). Please note that the welding will involve non-radioactive components and not the depleted uranium. All handling and use of licensed material will be performed and supported by Honeywell personnel in accordance with existing License Number SUB-971 provisions. A summary of operation design, staffing and schedule for the welding operations is provided in Attachment 1. It is estimated that the maximum quantity of material to be used and stored at the facility at any one time will be 100 kilograms. As the Laserdyne facility is not owned by Honeywell, Inc., I have attached a copy of a letter from Mr. R. S. Sanders, Director of Laserdyne Precision Services, authorizing Honeywell to utilize depleted uranium at their facility as per our earlier telephone conversation (Attachment 2).

Log Oct 12th
Remitter
Check No. 19563
Amount 8120
Fee Category 2G
Type of Fee amd
Date Check Rec'd.
Date Completed 10/14/86
By: SR

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REGION III OCT 8 1986

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REG3 LIC40 PDR
SUB-0971

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CONTROL NO. 82252

Also enclosed is a check in the amount of $120.00 as required per 10CFR170.31(2)(G). Your prompt assistance in this matter is greatly appreciated. Please contact Mr. Jim Fitzsimmons at (612)638-5205 if you have any questions or require additional information.

Sincerely,

HONEYWELL, INC.

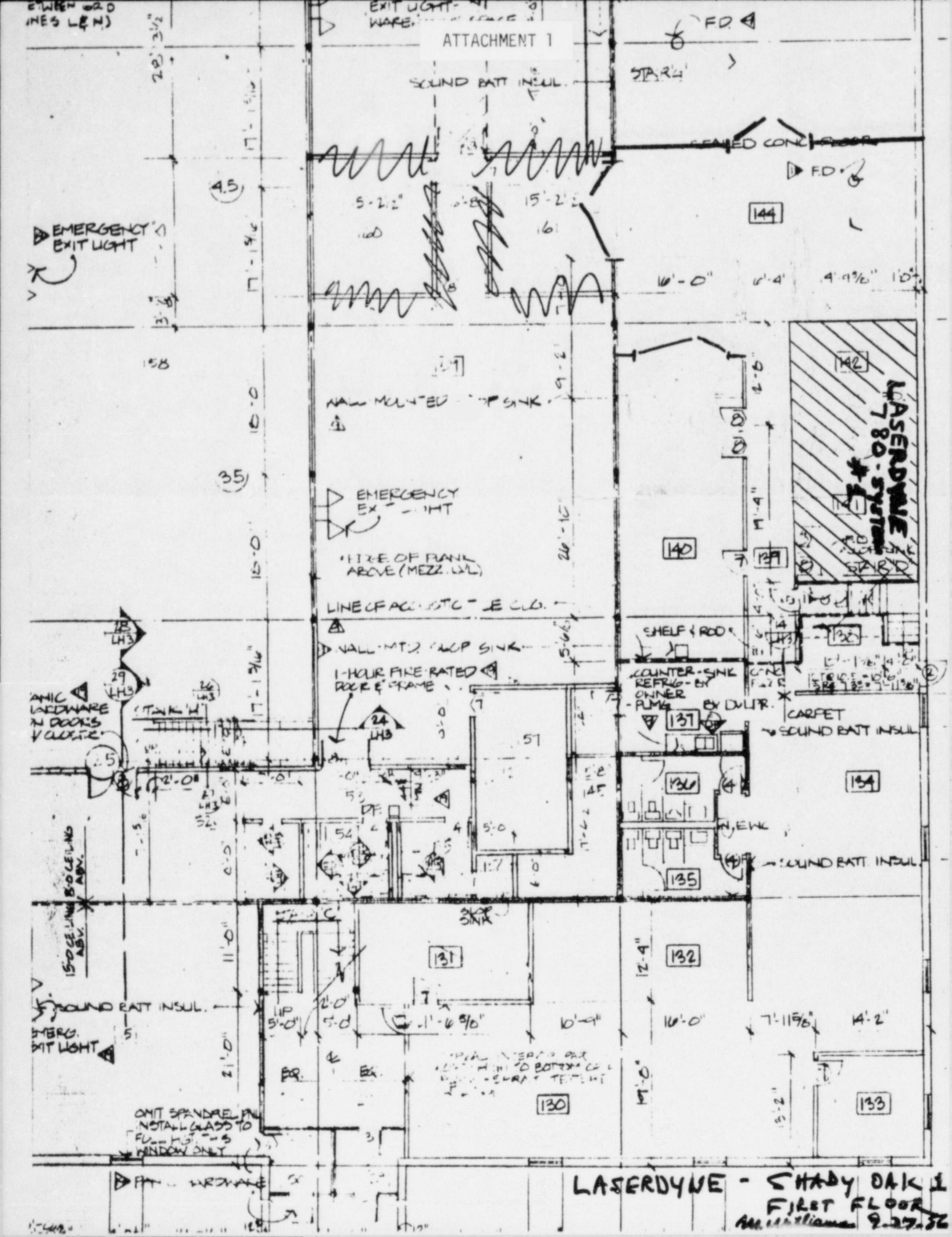
James M. Jaska

James M. Jaska
Environmental Management Manager

JMJ/jc

JMJ04JFJC

CONTROL NO. 82252


ATTACHMENT 1
EMERGENCY EXIT LIGHT
SOUND BATT INSUL.
STAIR 4
SEALED CONC. FLOOR
F.D.
144
16'-0"
6'-4"
4'-9½"
1'-0"
158
NAIL MOUNTED SINK
35
EMERGENCY EXIT LIGHT
SIZE OF PLANK ABOVE (MEZZ. LVL)
LINE OF ACOUSTIC CEIL.
142
LASERDYNE 780 - SYSTEM
141
140
139
SHELF & ROD
WALL-MTD. MOP SINK
1-HOUR FIRE RATED DOOR & FRAME
COUNTER - SINK REFRIG - BY OWNER - PLMB.
BY DWNR.
CARPET
SOUND BATT INSUL.
137
136
134
135
131
132
130
133
SOUND BATT INSUL.
EMERG. EXIT LIGHT
OMIT SPANDREL PNL INSTALL GLASS TO FLOOR - WINDOW ONLY
LASERDYNE - SHADY OAK 1
FIRST FLOOR
9-27-82

ATTACHMENT 2

LASERDYNE
A DIVISION OF DATA CARD CORPORATION

6690 Shady Oak Road
Eden Prairie, MN 55344
612/941-9530

July 11, 1986

Mr. James A Fitzsimmons,
Radiation Management Engineer MN 30-2546
Honeywell Incorporated
Defense Systems Division
New Brighton #502
Twin Cities Arsenal Hwy 10 & 96
New Brighton, MN 55112

Subject: Honeywell's Use of Depleted Uranium at Laserdyne

Dear Mr. Fitzsimmons:

The following constitutes written authorization allowing Honeywell to process the depleted uranium material at our facility in accordance with the attached information summary.

Sincerely,

Ron Sanders

Ron S. Sanders
Director
Laserdyne Precision Services

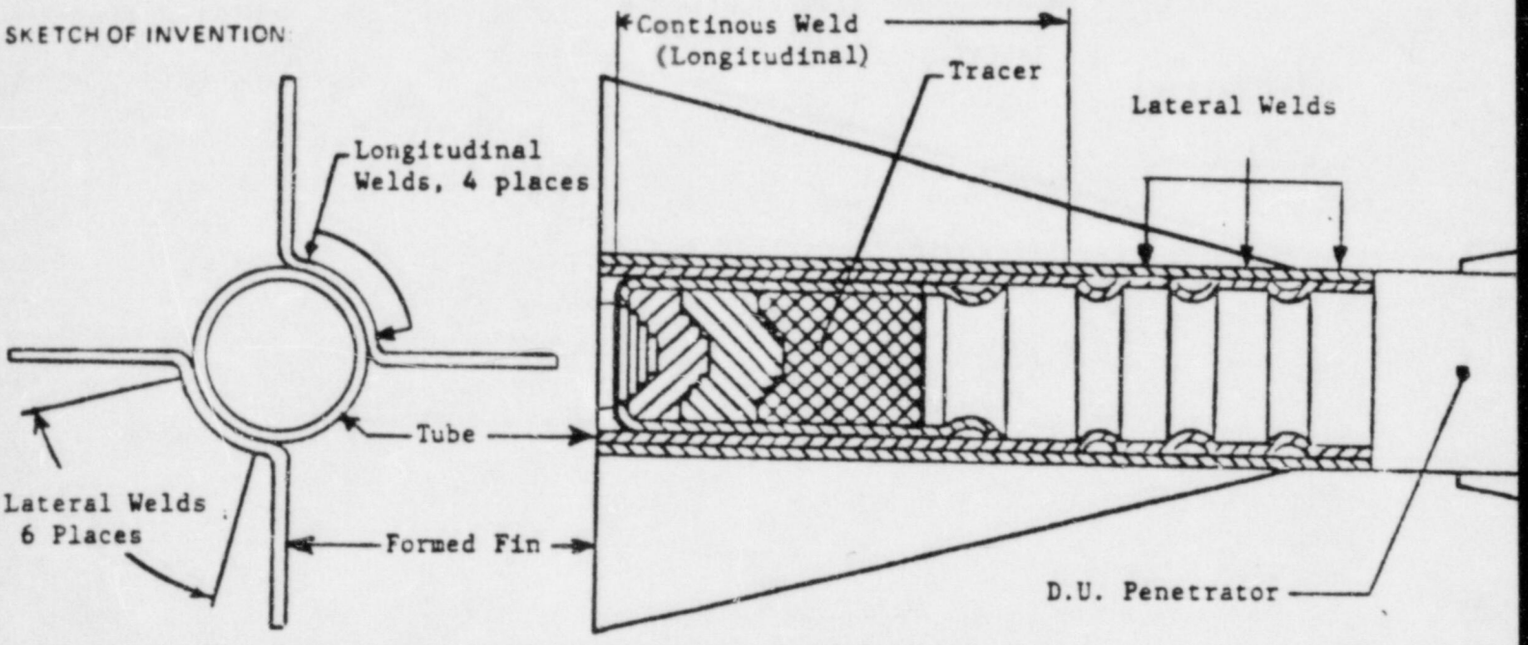
cj

enclosure

ATTACHMENT "A"

TITLE OF INVENTION: Scheme to utilize multiple crimp grooves for fin attachment

SKETCH OF INVENTION:



EXPLANATION, INCLUDING ADVANTAGES OVER WHAT HAS BEEN DONE BEFORE:

This invention provides an attachment method for a low cost stamped fin which permits attachment to materials that can not be welded i.e. DEPLETED URANIUM. It does this without sacrificing the diametral requirement of the tracer - as would result from a threaded attachment. It accomplishes this by multiple crimping grooves (one would not sustain the forces developed). These crimp grooves are bridged and paralleled by the formed fin itself which is welded to the crimped tube at each crimp interval.

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ATTACHMENT 1

LASER WELDING WITH DU PENETRATOR AT LASERDYNE

Design:

The design concept currently under consideration is to weld the Fin Assembly with the DU Penetrator assembled as shown in Attachment "A".
Note: Regardless of the final Fin design utilized, the Fin Assembly will not be welded directly to the DU Penetrator.

Staffing/Support of Welding at Laserdyne:

During either a development or production contract, laser welding will be performed and supported by Honeywell personnel.

Schedule:

Development 27 months (May 1986 - July 1988)

Phase I	• 14 months (May 1986 - June 1987) • 2700 welded Penetrator Assemblies • 535 lbs. of DU Rod at 90 gr./Penetrator
Phase II	• 8 months (July 1987 - February 1988) • 2500 welded Penetrator Assemblies • 495 lbs. of DU Rod at 90 gr./Penetrator
Phase III	• 5 months (March 1988 - July 1988) • 5300 welded Penetrator Assemblies • 1050 lbs. of DU Rod at 90 gr./Penetrator
Total	• 10,500 welded Penetrator Assemblies • 2,080 lbs. of DU Rod at 90 gr./Penetrator

Production:

The quantities below are estimates of the potential production quantities. Production would begin sometime in late 1988 or early 1989.

- Initial production 10,000 welded Penetrator Assemblies/month
- High volume production 100,000 welded Penetrator Assemblies/month

In summary, it is the intent of the XM919 program to utilize Laserdyne Corp. to laser weld the Fin Assembly with the DU Penetrator attached. All welding will be performed in Laserdyne's facility with the work being performed by Honeywell personnel.

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