IDS Intelligent Detection Systems Inc.
66 Slater Street, 6th Floor
Ottawa, Ontario
K1P 5H1 x270
Phone: (613) 230-0609
Fax. (613) 230-3805

54-23849-01E
NR 10180101E

October 9, 1997

Dear Valued Customer/Supplier:

We would like to take this opportunity to advise you of the recent changes at IDS Intelligent Detection Systems Inc. (formerly CPAD Technologies Inc. "CPAD"). On September 30, 1997, the shareholders of CPAD approved an amalgamation of CPAD with its controlling shareholder IDS Intelligent Detection Systems Inc. to form a new company, also called IDS Intelligent Detection Systems Inc.

This amalgamation was completed on September 30, 1997.

The development, manufacture and sale of our chemical detection equipment for the detection of explosives and interdiction of drugs will continue to be conducted by a division to be known as CPAD Technologies (CPAD). The provision of integration, consulting and engineering services and value-added reselling of computer hardware will be conducted by a division to be known as Integration, Engineering and Consulting (IEC).

Please forward all invoices and correspondence to IDS Intelligent Detection Systems Inc. in the future. Your cooperation is appreciated.

If you have any questions with respect to these recent changes, please call our office at (613) 230-0609 and Gitti Kealey will direct you to the appropriate person to respond to your queries.

Yours truly,

Darlene Nielsen-Downey, CA
Chief Financial Officer

(D. Kirkwood w/o encl cy)

TELEPHONE CONVERSATION RECORD	Date: December 10, 1998	**Time:** 17:59
Mail Control No.: 022006	**License No.:** 54-23849-01E	**Docket No.:** 030-34271
Person Called: Melissa Ferrar	**Organization:** IDS Intelligent Detection Systems, Inc.	**Telephone Number:** (613)224-2629 x228, Internet: mferrar@idsdetection.com
Person Calling: Anthony S. Kirkwood		
Subject: Amendment request dated 7/28/98		
Summary: New contact is Dr. Larry Haley at extension 235, email Internet: lhaley@idsdetection.com. New name is IDS Intelligent Detection Systems, Inc. New mailing address is 152 Cleopatra Drive, Nepean, Ontario, Canada K2G 5X2. She will contact if any change to initial US distribution point address. Gave her number for Fees.		
Action Required/Taken: Copy to file.		
Signature: A Kirkwood	**Date:** 12/10/98	

NRC FORM 567
(6-93)

U. S. NUCLEAR REGULATORY COMMISSION

REQUEST FOR A SEALED SOURCE OR DEVICE EVALUATION

INSTRUCTIONS: Send this request AND a copy of all related letters/applications and drawings to: The Sealed Source Safety Section, ATTN: Chief, OWFN Mail Stop 6 H3. Change the License Tracking System milestone to 19 and assign to reviewer code I-5.
NOTE: Retain a copy of this request with the application and background files. JL

REQUESTER: Intelligent Detection Sys.	REGION/LOCATION: ☐ I ☐ II ☐ III ☐ IV ☐ V ☐ HQ ☐ LFDCB
TELEPHONE NUMBER / DATE	TYPE OF ACTION REQUESTED (Check as appropriate)
APPLICANT'S NAME: Al McEachern	☐ SOURCE REVIEW ☐ AMENDMENT OF REGISTRATION SHEET NUMBER(S)
MAIL CONTROL NUMBER(S)	☐ DEVICE REVIEW
LETTER APPLICATION DATE: 2-28-98 / LICENSE NUMBER(S): 5H3849-01E	☐ CUSTOM REVIEW

COMMENTS:
152 Cleopatra Drive
Nepean, Ontario, Canada K2G 5X2

FOR SSSS USE ONLY

REVIEWER	MODEL NUMBERS	NUMBER ASSIGNED: 98-93
DATE RECEIVED	DATE ASSIGNED	DATE TO FEES: 10-19-98

TYPE OF ACTION (Indicate the number of each type)

☐ COMMERCIAL DISTRIBUTION (FORMAL) ☐ USE BY A SINGLE APPLICANT (CUSTOM)

SOURCE (9C)	DEVICE (9A)	SOURCE (9D)	DEVICE (9B)
☐ NEW ☐ AMENDMENT	☐ NEW ☐ AMENDMENT	☐ NEW ☐ AMENDMENT	☐ NEW ☐ AMENDMENT

☒ NO SAFETY EVALUATION REQUIRED
NO FEES REQUIRED

☐ LICENSING ACTION REQUIRED IF KNOWN ☐ YES ☐ NO

☐ OTHER *(Specify)*

	TOTAL NUMBER OF REVIEW HOURS	NOTES: Name Change Only
	NUMBER OF DEFICIENCY LETTERS	
	NUMBER OF DEFICIENCY CALLS	

FOR BILLING PURPOSES ONLY

☐ NAME CHANGE	☐ ADDRESS CHANGE	☐ NEW REGISTRATION – ADD TO BILLING	☐ PRODUCT INACTIVE – REMOVE FROM BILLING

FOR FEE USE ONLY

TYPE OF FEE		FEE CATEGORY ☐ 9A ☐ 9B	☐ 9C ☐ 9D
AMOUNT RECEIVED: No Fee Required Admin Change		CHECK NUMBER	☐ MATANN UPDATED AS REQUIRED
DATE OF CHECK		LOG: Ltr 98'55	☐ MATSYS UPDATED AS REQUIRED
APPROVED BY		DATE RETURN: 10/27/98	DATE
COMMENTS			

NRC FORM 567 (6-93)

ORIGINAL TO SSSS

INTELLIGENT DETECTION SYSTEMS

Steve

REPLY TO NOTICE OF VIOLATION

July 28, 1998

DOCKET NO: 030-342271 LICENSE NO: 543849-01E

US Nuclear Regulatory Commission
Document Control Desk
Washington, D.C., 20555-0001

Re: Safety Inspection Conducted by Thor Oberg at our East Syracuse Site.

Att: Document Control Clerk

Dear Sir / Madam:

On July 8, 1998 CPAD received notification from the U.S. Nuclear Regulatory Commission informing CPAD of a violation of the NRC's Regulations. CPAD has conducted an investigation of the violation and the findings are summarized below:

1) Cause of the Violation
An error was made due to a lack of understanding of the approval process on CPAD's part. On Dec. 19,1996 we received verbal notification that our IMS Device was approved and that this information was being forwarded on to the licencing branch. CPAD was also informed at that time that our licence number would be 54 – 23849-01E. With this information and a New York State licence dated Nov. 18, 1996, and written notification of the Device approval received on Dec. 30, 1996, we incorrectly concluded that it was acceptable to ship. The detectors were shipped to our East Syracruse location at Galson where they were processed in accordance with the requirements of the NRC.

2) Corrective Steps Taken
CPAD has now obtained all required licences and are ensuring that NRC procedures are being implemented, and complied with. The five detectors which were shipped in contravention to the licence on Jan. 2, 21, 28, 29, and the 4th of Feb., 1997 have been returned to our facility in Ottawa Canada. The shipment mentioned in your report as being the 29th of Dec. 1996 based on

IDS Intelligent Detection Systems Inc. 152 Cleopatra Drive Nepean, Ontario, Canada K2G 5X2 t - 613 224-1061 f - 613 224-2603 www.idsdetection.com

9808130287 2pp. SLATER OFFICE (613) 230-0609 X 314

the Wipe Test results at Galson is in error. This Wipe Test is a copy of the first test carried out by CPAD Inc. in Canada relating to the shipment made on the 2nd of Jan., 1997.

3) Corrective Action to Prevent Further Recurrance
CPAD intends to maintain it's licence with NRC. Payment for 1998 has been submitted. We will control and test the detectors in accordance with NRC's Regulations. CPAD will execute the afore mentioned procedures with a person carrying out the functions of a Radiation Safety Officer.

4) Date of Compliance
The date of full compliance was achieved on Feb. 12, 1997, when IDS Inc.'s NRC licence was issued.

Please note for future referance that company name CPAD Technologies Inc. has been changed to Intelligent Detection Systems (IDS. Inc.), this was only a name change not a new company taking over. A notification of change was sent to the NRC with our licence renewal.

I hope that these statements meet with your approval, and should you require any additional information please advise.

Yours truly

Al McEachern

AM/msf

Dr. Larry Haley
IDS Intelligent Detection Systems
152 Cleopatra Drive
Nepean, Ontario
Canada K2G 5X2

January 19, 1999

Dear Dr. Haley:

Based on a recent amendment to your license (54-23849-01E) we have changed CPAD Technologies Inc. to IDS Intelligent Detection Systems Inc. and amended the manufacturer's address on the enclosed registration certificate (NR-1018-D-101-E) for the Ion Mobility Spectrometer (IMS) Detector Series.

Please be advised that you must manufacture and distribute the product in accordance with the statements and representations contained in your application, with enclosures thereto, and the information set out in your registration certificate. As a general rule, you must request and obtain an amendment to the certificate before you make changes or modifications to the information submitted to obtain the certificate.

Please read over the registration certificate in its entirety and notify us immediately of any errors or omissions.

You are obligated to notify us promptly in writing should you decide to no longer manufacture or offer service support for the product.

Please be aware that, as a holder of an NRC registration, you may be subject to the NRC's licensing fees in accordance with 10 CFR Part 170, and annual fees in accordance with 10 CFR Part 171. If you have any questions concerning the fee requirements, please contact the License Fee and Debt Collection Branch at (301) 415-6096.

If you have any questions, please contact me at (301) 415-5799 or Ms. Michele Burgess at (301) 415-5868.

Sincerely,

/s/
Eric B. Compton, Engineering Aide
Materials Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
And Safeguards

Enclosure: As stated

cc w/encl: Skimberley, LFDCB

Distribution:
IMNS r/f SSD-98-93 NE01
SSD File # NR-1018-D-101-E

DOCUMENT NAME: H:\ERIC\COMPLTR\N1018101.CMP
To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	MSB	C	MSB	C	MSB	E				
NAME	ECompton EC		AKirkwood ask		MBurgess MB					
DATE	01/ 4 /99		01/ 4 /99		01/ 19 /99					

OFFICIAL RECORD COPY

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REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE
(CORRECTED PAGES 1,2,4, & 5 - JANUARY 20, 1999)

NO.: NR-1018-D-101-E DATE: December 20, 1996 PAGE 1 OF 6

DEVICE TYPE: Explosives Detector

MODEL: Ion Mobility Spectrometer (IMS) Detector Series

DISTRIBUTOR: **IDS Intelligent Detection Systems**
(Formerly CPAD Technologies Inc.)
The Galson Building
6601 Kirkville Road
East Syracuse, NY 13057

MANUFACTURER: **IDS Intelligent Detection Systems**
(Formerly CPAD Technologies Inc.)
152 Cleopatra Drive
Nepean, Ontario
Canada K2G 5X2

SEALED SOURCE MODEL DESIGNATION: NRD Model N1001

ISOTOPE:	MAXIMUM ACTIVITY:
Nickel-63	3.3 millicuries (1.2 GBq)

LEAK TEST FREQUENCY: Not Required

PRINCIPAL USE: (N) Ion Generator, Explosives Detector

CUSTOM DEVICE: _____ YES ___X___ NO

DEVICE TYPE: Explosives Detector

DESCRIPTION:

The Ion Mobility Spectrometer (IMS) detector is contained within other devices to detect organic compounds. The complete device is designed to protect life and property by detecting explosives.

The IMS is installed as a component inside other devices, which are intended for both fixed and portable use. Uses range from operating in an airport type environment to field conditions where the conditions are those expected for exterior operation. The device may be mounted to a vehicle, but will not be installed in a fixed unprotected position outside, open to the environment. **The distributor** claims that the IMS can operate at temperatures of up to 2600°C (5000°F), can withstand corrosive atmospheres and vibration expected to be encountered during use, and because the device works in a dry nitrogen atmosphere, humidity and corrosion are not a problem. The device has no moving parts, as such it is not subject to fatigue.

The IMS detector measures 1.86 inches (4.72 cm) in length and 2.5 inches (6.75 cm) in diameter. The IMS detector is installed in what is referred to as the Analytical Unit. The Analytical Unit is a metal box measuring 12 inches (30.48 cm) in length, 6.75 inches (17.15 cm) in height, and 2.5 inches (6.3S cm) in depth. The Analytical Unit is then contained within a security closet.

The Ni-63 source is pressed into a recessed hole in a sheet of aluminum which is fitted into the Teflon source holder subassembly. The source is sandwiched into place in the source holder subassembly with an aluminum tube secured by two stainless steel bolts. This aluminum tube is used to form the ionization chamber. The source holder subassembly is then attached to the aluminum source base secured with two stainless steel screws. The source base is then attached to the aluminum base secured with four tamper proof screws. These tamper proof screws have an internal hex head with a pin that requires a special tool for their removal. The IMS detector is now securely fastened inside the Analytical Unit using three stainless steel screws.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR-1018-D-101-E DATE: December 20, 1996

DEVICE TYPE: Explosives Detector

DESCRIPTION (Contd.):

The model number is a 15 character number. It is described as follows: (a) the first three letters will be IMS; (b) the next two will be either NI for devices using a Ni-63 source or PD for devices using photo ionization; (c) the next letter will either be P for particle capture and detection or a V for vapor capture and detection; (d) the next three numbers will represent the voltage, i.e., 110, 220, or 024 volts; (e) the next two will represent the current, i.e., AC or DC; and (f) the last four numbers will be the number on the IMS. The serial number is an eight digit number. It is described as follows: (a) the first two will be the year of manufacture; (b) the next three will be the Julian date of manufacture; and (c) the last three will be the number produced on a specific day.

LABELING:

The device is labeled in accordance with 10 CFR 32.29(b). An additional label is placed on the outside of the Analytical Unit which contains information similar to that on the label on the point of sale package.

DIAGRAM:

See Attachments 1, 2, and 3.

EXTERNAL RADIATION LEVELS:

The device contains a Ni-63 source which emits low energy beta radiation. The source is completely surrounded by aluminum with a wall thickness of 0.78 inches (2 cm), which is sufficient to absorb all of the radiation emitted by the source. Therefore, radiation levels on the detector's surface will be indistinguishable from background.

DEVICE TYPE: Explosives Detector

LIMITATIONS AND/OR OTHER CONSIDERATIONS OF USE:

- The device shall only be used as a component in explosive detectors.
- The device will be used by individuals exempt from regulatory requirements pursuant to 10 CFR 30.20.
- **This registration certificate and the information contained within the references shall not be changed without the written consent of the NRC.**

SAFETY ANALYSIS SUMMARY:

Based on our review of the model IMS detector and the information and test data cited below, we conclude that the product is designed and manufactured so that:

- In normal use and disposal of a single exempt unit, and in the normal handling and storage of the quantities of exempt units likely to accumulate in one location during marketing, distribution, installation, and servicing of the product, it is unlikely that the external radiation dose in any one year, or the dose commitment resulting from the intake of radioactive material in any one year, to a suitable sample of the group of individuals expected to be most highly exposed to radiation or radioactive material from the product will exceed the dose to the appropriate organ as specified in Column I of the following table.
- It is unlikely that there will be a significant reduction in the effectiveness of containment, shielding, or other safety features of the product from wear and abuse likely to occur in normal handling and use of the product during its useful life.
- In use and disposal of a single exempt unit, or in handling and storage of the quantities of exempt units likely to accumulate in one location during marketinlg, distribution, installation, and servicing of the product, the probability is low that the containment, shielding, or other safety features of the product would fail under such circumstances that a person would receive an external radiation dose or

DEVICE TYPE: Explosives Detector

SAFETY ANALYSIS SUMMARY (Contd.):

dose commitment in excess of the dose to the appropriate organ as specified in Column II of the table below, and the probability is negligible that a person would receive an external radiation dose or dose commitment in excess of the dose to the appropriate organ as specified in Column III of the table below.

TABLE OF ORGAN DOSES (Rem)

Part of the body	Col. I	Col. II	Col. III
WB, head, trunk Gonads, eyes	0.005	0.5	15
Extremities, skin	0.075	7.5	200
Other organs	0.015	1.5	50

Based on review of the model IMS detector, and the information and test data cited below, we conclude that this device is acceptable for licensing purposes.

Furthermore, we conclude that the model IMS detectors would be expected to maintain their containment integrity for normal conditions of use and accidental conditions which might occur during uses specified in this certificate.

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR-1018-D-101-E DATE: December 20, 1996 PAGE 6 OF 6

DEVICE TYPE: Explosives Detector

REFERENCES:

The following supporting documents for the Model IMS Detector organic compound detector are hereby incorporated by reference and are made a part of this registry document.

- CPAD Technologies Inc.'s (Canada) application received July 10, 1996 (no date on letter), letters dated September 23, 1996, October 11, 1996, October 24, 1996, and November 5, 1996, and facsimiles dated September 4, 1996, September 23, 1996, October 25, 1996, November 6, 1996, November 15, 1996, December 13, 1996, December 16, 1996 (2), and December 19, 1996, with enclosures thereto.

ISSUING AGENCY:

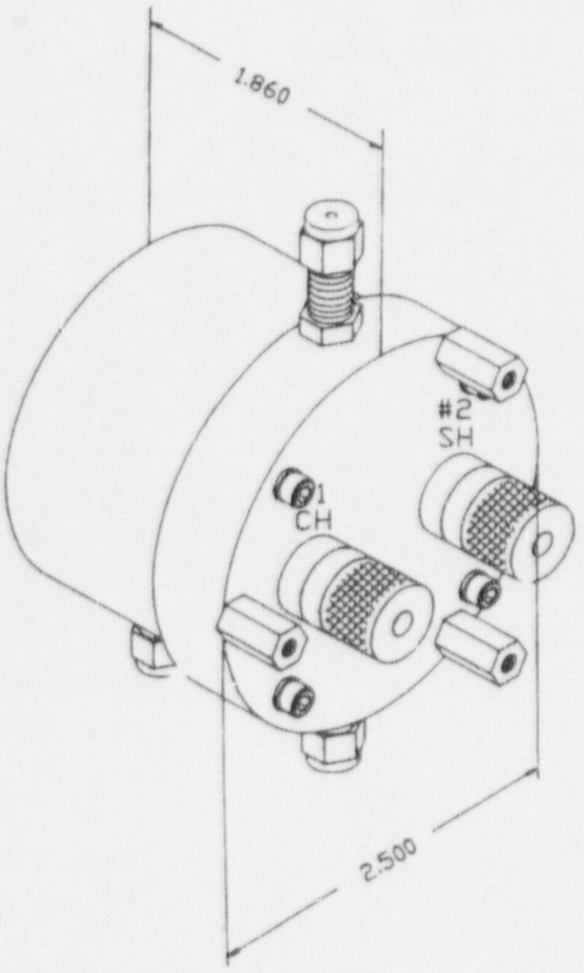
U.S. Nuclear Regulatory Commission

Date: December 20, 1996 Reviewer: _____
John W. Lubinski

Date: December 20, 1996 Concurrence: _____
Steven L. Baggett

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

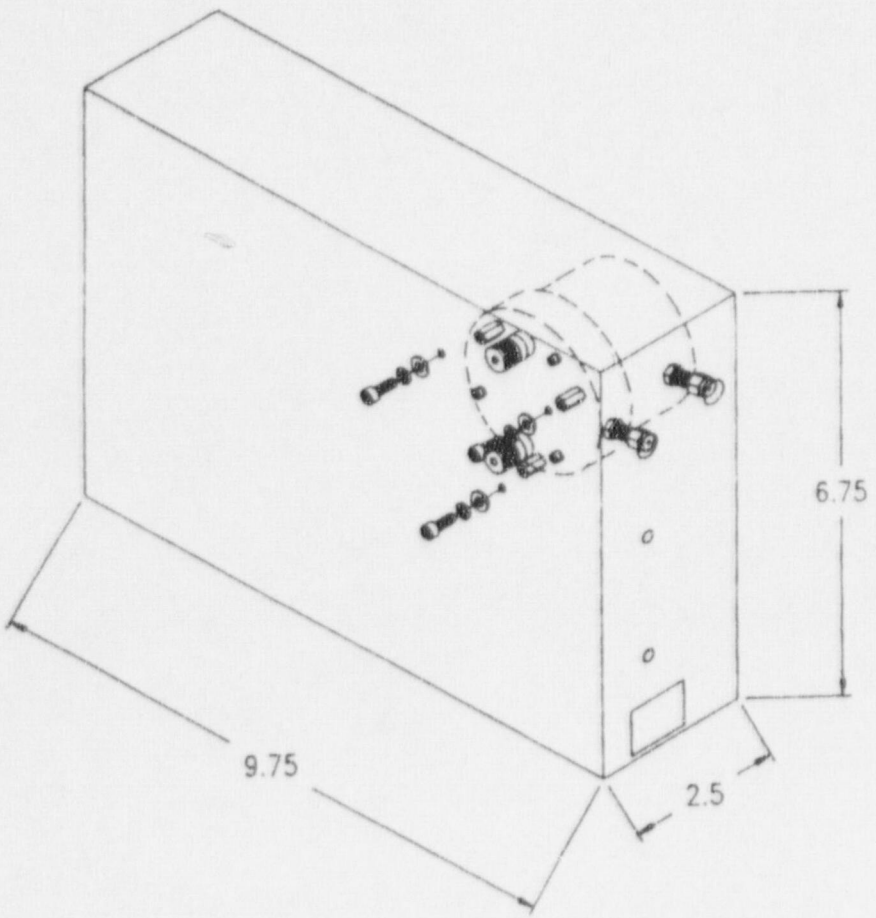
NO.: NR-1018-D-101-E DATE: December 20, 1996 ATTACHMENT 1



IMS Detector

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

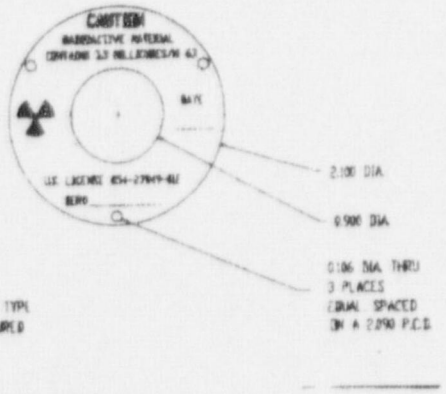
NO.: NR-1018-D-101-E DATE: December 20, 1996 ATTACHMENT 2



Analytical Unit

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR-1018-D-101-E DATE: December 20, 1996 ATTACHMENT 3



NOTE: THE LABEL WILL BE A HIGH ADHESIVE TYPE WITH THE RADIATION SYMBOL AND TEXT COLOURED BLACK ON A ALUMINUM BACKGROUND

IMS Radiation Warning Label