NRC FORM 374
(7-94)

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 8

ORC

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. NDC Systems	In accordance with letter dated October 8, 1996 3. License Number 04-23264-01 is amended in its entirety to read as follows:
2. 5314 N. Irwindale Avenue Irwindale, CA 91706	4. Expiration Date January 31, 2003
	5. Docket or Reference No. 030-20431

6. Byproduct, Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum Amount that Licensee May Possess at Any One Time Under This License
A. Americium 241	A. Sealed sources (Amersham Model AMC.P1, AMC.P6)	A. Not to exceed 150 millicuries per source and 16 curies total
B. Americium 241	B. Sealed sources (Amersham Model AMC.D3)	B. Not to exceed 150 millicuries per source and 1.5 curies total
C. Curium 244	C. Sealed sources (Amersham Model CLCL)	C. Not to exceed 250 millicuries per source and 5 curies total
D. Americium 241	D. Sealed sources (Isotope Product Labs, Inc. Model GFS-3)	D. Not to exceed 80 millicuries per source and 2 curies total
E. Strontium 90	E. Sealed sources Amersham Models SIF-1171, SIF.D1	E. Not to exceed 100 millicuries per source and 2 curies total
F. Krypton 85	F. Sealed sources(Amersham Model KAC [X.1088 capsule], or Dupont Model NER-584 or NER-585)	F. Not to exceed 200 millicuries per source and 4 curies total

210009

ML40

G. Promethium 147	G. Sealed sources (Amersham model PHC.C1 [capsule type X.8095])	G. Not to exceed 500 millicuries per source and 10 curies total
H. Americium 241/ Curium 244, Strontium 90/Promethium 147	H. Analytical samples	H. 1 microcurie

9. Authorized use

A-G. For storage, gauge demonstrations, training, leak testing, shutter testing, maintenance, installation, removal, relocation and radiation survey of NDC Systems thickness gauges Models 101, 102, 103, 104, 104P, 104PD, 105, 106, 107, 301, 302, and 303.

H. Possession incident to the performance of wipe testing of customer's sealed sources.

CONDITIONS

10. A. Licensed material may be stored at the licensee's sales engineering offices at the following locations:

NDC Systems Southwest
2525 S.W. 82nd
Oklahoma City, Oklahoma 73159

G & T Applied Technologies
45 Sandalwood Drive
East Brunswick, New Jersey 08816

Instrumentation Resources, Inc.
6325 Welcome Avenue North
Minneapolis, Minnesota 55429

NDC Systems Midwest
6637 Strathcona Avenue
Dublin, Ohio 43017

G & T Applied Technologies
22 Bobolink Lane
Somers, Connecticut 06071

B. Licensed material shall be used only at temporary job sites of the licensee anywhere in the United States where the Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.

11. A. Licensed material described in Items 7.A. through 7.H. may be used for storage, gauge demonstrations, training, leak testing, shutter testing, or radiation survey by or under the direct supervision of J. Fishman, H. Imai, D. Fishman, E. Murakami, E. Reber, Y. Fishman and B. Kramer, or individuals who have received the training and experience and been certified by the Radiation Safety Officer as specified in application dated August 15, 1992.

B. Licensed material described in Items 7.A. through 7.H. may be used for gauge maintenance, installation, removal, or relocation by or under the direct supervision of J. Fishman, H. Imai, E. Murakami and D. Fishman, or individuals who have received the training and experience and been certified by the Radiation Safety Officer as specified in application dated August 15, 1992.

C. The licensee shall maintain records of individuals designated as users.

12. Sealed sources containing licensed material shall not be opened or sources removed from source holders by the licensee.

13. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.

14. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210 or by an Agreement State.

B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.

C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.

D. Sealed sources need not be leak tested if:

(i) they contain only hydrogen-3; or

(ii) they contain only a radioactive gas; or

(iii) the half-life of the isotope is 30 days or less; or

(iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or

(v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

E. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Radiation Safety and Safeguards. The report shall specify the source involved, the test results, and corrective action taken.

F. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to Perform such services.

15. The Radiation Safety Officer for activities under this license is Eugene Murakami.

License Number 04-23264-01

Docket or Reference Number 030-20431

MATERIALS LICENSE
SUPPLEMENTARY SHEET

Amendment No. 8

16. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated August 15, 1992
B. Letter dated August 19, 1992
C. Facsimile dated November 11, 1992
D. Letter dated June 3, 1993
E. Letter dated September 24, 1993
F. Letter dated January 24, 1996
G. Letter dated February 5, 1996
H. Letter dated March 8, 1996
I. Letter dated October 8, 1996
J. Facsimile dated January 30, 1997

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JAN 31 1997

By Beth A. Prange
Materials Branch
Region IV, WCFO
Walnut Creek, California 94596

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03225
Status Code: 0
Fee Category: 3N
Exp. Date: 20030131
Fee Comments: EFF 7/2/90 SERV & LT
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION IV

1. APPLICATION ATTACHED
   Applicant/Licensee: NDC SYSTEMS
   Received Date: 961010
   Docket No: 3020431
   Control No.: 572618
   License No.: 04-23264-01
   Action Type: Amendment

2. FEE ATTACHED
   Amount:
   Check No.: none

3. COMMENTS

Signed Jaye Barela
Date 10-16-96

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ✓)

1. Fee Category and Amount: 3N $590

2. Correct Fee Paid. Application may be processed for:
   Amendment ✓
   Renewal
   License

3. OTHER

Signed Rita Messier
Date 11/3/96

Log Oct IV
Remitter
Check No. 088551
Amount $590
Fee Category 3N
Type of Fee Amd
Date Check Rec'd.
Date Completed 11/5/96
By: Rm

MS 03 10/28/96

1996 OCT 23 AM 10:59

NRC FORM 577 (1-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSE FEE REQUIREMENTS

LICENSE FEE AND DEBT COLLECTION BRANCH
DIVISION OF ACCOUNTING AND FINANCE
OFFICE OF THE CONTROLLER
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

NDC SYSTEMS
ATTN: DANIEL FISHMAN
PRESIDENT
5314 NORTH IRWINDALE AVENUE
IRWINDALE, CA 91706

TYPE OF ACTION

- ☐ NEW LICENSE
- ☐ RENEWAL OF LICENSE
- ☒ AMENDMENT TO LICENSE

REQUESTED DATE: 10-8-96

LICENSE NUMBER: 04-23264-01

CONTROL NUMBER: 572418 ATTN: RITA MESSIER, LFARB, T9E10

I. APPLICATION FEE DUE

Your request for a licensing action is subject to the fee(s) in the category(ies) noted below in accordance with Section 170.31 of the enclosed Federal Register notice. Payment of the fee is required prior to the issuance of the license, renewal, or amendment.

FEE CATEGORY	APPLICATION	RENEWAL	AMENDMENT
3N	$	$	$ 590.00
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$
	$	$	$

FEE(s) DUE	$ 590.00
PAYMENT RECEIVED	$
AMOUNT DUE	$ 590.00

☒ Your request was received without the prescribed application fee.

☐ We received your Check No. _____ in the amount of $ _____. Payment of the additional fee noted above is required.

☐ Your request will increase the scope of your license program. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(d)(2).

☐ Your license expired prior to the receipt of your application for renewal. Therefore, your request is subject to the application fee(s) noted above. Refer to Section 170.31 and Footnote 1(a).

MAKE PAYMENT OF THE FEE(S) TO THE U.S. NUCLEAR REGULATORY COMMISSION AND MAIL THE PAYMENT TO THE ADDRESS LISTED AT THE TOP OF THIS FORM. IF WE DO NOT RECEIVE A REPLY FROM YOU WITHIN 30 CALENDAR DAYS FROM THE DATE LISTED BELOW, WE SHALL ASSUME THAT YOU DO NOT WISH TO PURSUE YOUR APPLICATION AND WILL VOID THIS ACTION.

II. FEE NOT REQUIRED

☐ Enclosed is Check No. _____ which accompanied your request. The fee is not required because:

- ☐ We received your Check No. _____ in payment of the fee.
- ☐ The Licensing staff has informed us that your request is to be considered as a continuation of your request dated _____, Control No. _____.
- ☐ Your request was combined, prior to review, with your _____ request, Control No. _____.

III. CHECK RETURNED

☐ Enclosed is Check No. _____ which was returned to us by the bank for:

- ☐ INSUFFICIENT FUNDS
- ☐ ACCOUNT CLOSED
- ☐ OTHER

MAIL THE REPLACEMENT CHECK TO THE ADDRESS LISTED AT THE TOP OF THIS FORM AND REFERENCE THE ABOVE CONTROL NUMBER.

IV. LICENSE ISSUED WITHOUT THE REQUIRED FEE

☐ License No. _____, Amendment No. _____, issued on _____ was issued without the required fee being collected. The fee required is noted in Section I of this form.

☐ The scope of your licensed program was increased. Therefore, your request is subject to the application fee(s) noted in Section 1 of this form. Refer to Section 170.31 and Footnote 1(d)(2).

☐ Because of the urgency of your request, the license was issued without remittance of the prescribed fee noted in Section 1 of this form.

SIGNATURE – LICENSE FEE ANALYST	LFDCB	LFDCB
RITA MESSIER	REMessier	Rem
	10/23/96	

Distribution: OC/DAF RF
Pending Fee File OC/DAF/SF(LF-3 2.7)
LFARB R/F (2) Region ___ WCFO

DATE: 10-23-96

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV

Walnut Creek Field Office
1450 Maria Lane
Walnut Creek, California 94596-5368

JAN 31 1997

NDC Systems
ATTN: Daniel Fishman, President
5314 North Irwindale Avenue
Irwindale, California 91706

SUBJECT: LICENSE AMENDMENT

Please find enclosed License No. 04-23264-01. You should review this license carefully and be sure that you understand all conditions. If you have any questions, you may contact Kent M. Prendergast at (510) 975-0255.

NRC expects licensees to conduct their programs with meticulous attention to detail and a high standard of compliance. Because of the serious consequences to employees and the public which can result from failure to comply with NRC requirements, you must conduct your program involving radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Possess radioactive material only in the quantity and form indicated in your license.

3. Use radioactive material only for the purpose(s) indicated in your license.

4. Notify NRC in writing of any change in mailing address (no fee required if the location of radioactive material remains the same).

5. Request and obtain written NRC consent before transferring your license or any right thereunder, either voluntarily or involuntarily, directly or indirectly, through transfer of control of your license to any person or entity. A transfer of control of your license includes not only a total change of ownership, but also a change in the controlling interest in your company whether it is a corporation, partnership, or other entity. In addition, appropriate license amendments must be requested and obtained for any other planned changes in your facility or program that are contrary to your license or contrary to representations made in your license application, as well as supplemental correspondence thereto, which are incorporated into your license. A license fee may be charged for the amendments if you are not in a fee-exempt category.

6. Maintain in a single document decommissioning records that have been certified for completeness and accuracy listing all the following items applicable to the license:

   - Onsite areas designated or formerly designated as restricted areas as defined in 10 CFR 20.3(a)(14) or 20.1003.

   - Onsite areas, other than restricted areas, where radioactive materials in quantities greater than amounts listed in Appendix C to 10 CFR 20.1001-20.2401 have been used, possessed, or stored.

   - Onsite areas, other than restricted areas, where spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site have occurred that required reporting pursuant to 10 CFR 30.50(b)(1) or (b)(4), including areas where subsequent cleanup procedures have removed the contamination.

   - Specific locations and radionuclide contents of previous and current burial areas within the site, excluding radioactive material with half-lives of 10 days or less, depleted uranium used only for shielding or as penetrators in unused munitions, or sealed sources authorized for use at temporary job sites.

   - Location and description of all contaminated equipment involved in licensed operations that is to remain onsite after license termination.

7. Submit a complete renewal application with proper fee, or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

8. Request termination of your license if you plan to permanently discontinue activities involving radioactive material.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the

"General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), 60 FR 34381, June 30, 1995.

Thank you for your cooperation.

Sincerely,

Beth A. Prange

Beth A. Prange
Sr. Health Physicist (Licensing)
Materials Branch

Docket: 030-20431
License: 04-23264-01
Control: 572418

Enclosures: As stated

bcc:
Docket File
WCFO Inspection File
1LFDCB, T-9 E10
State of California (License Only)

DOCUMENT NAME: G:\BofW supply 572417

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

RIV:MB		RIV:MB	N				
K Prendergast		BPrange BP					
01/31/97		1/31/97					

OFFICIAL RECORD COPY

NDC SYSTEMS

5314 North Irwindale Avenue
Irwindale, CA 91706 U.S.A.
Direct Phone: (818) 939-3817
Fax: (818) 939-3871

Fax Cover Sheet

DATE: January 30, 1997

TO: Kent Prendergest **FAX:** 510 975-0381

COMPANY: USNRC

FROM: Holly McKnight, Asst. RSO

RE: Spec. License - 04-23264-01 - Radiation Safety Officer Training

CC:

Number of pages including cover sheet: 2

Attached please find a copy of the Certificate of Completion for the Radiation Safety Officer Course which Eugene Murakami completed during the week of January 6, 1997. If you need any further information to complete our license amendment please let me know.

Regards,

Holly McKnight

Certificate of Completion

Eugene Murakami

Completed RSO Course
NDC Systems

Week of
6 January, 1997

Susan J. Engelhardt
Susan J. Engelhardt
President

Engelhardt & Associates, Inc.

NDC SYSTEMS

5314 North Irwindale Avenue
Irwindale, CA 91706 U.S.A.
Direct Phone: (818) 939-3817
Fax: (818) 939-3871

Fax Cover Sheet

DATE: January 30, 1997

TO: Kent Prendergest **FAX:** 510 975-0381

COMPANY: USNRC

FROM: Holly McKnight

RE: Safety Officer Course Description

CC:

Number of pages including cover sheet: 5

5724 18

RADIATION SAFETY OFFICER COURSE AT NDC SYSTEMS

WEEK OF 6 JANUARY, 1997

PRESENTED BY

SUSAN J. ENGELHARDT
ENGELHARDT & ASSOCIATES

Day One

Description	**Objectives**
How Radiation is Used • Medical uses • Industrial uses • Academic uses	Know common uses of radiation in industry, research & medicine
Regulatory Agencies • Who regulates what • Where regulatory standards come from • NRC vs. Agreement States • Other agencies (e.g., OSHA, FDA, EPA, DOT)	Understand how the regulations are developed. Know the difference between Agreement vs. non-Agreement states. Know the relationship between the NRC and other agencies.
Radiation Physics • Types of radiation • Interactions with matter • Half-life • Radioactivity units	Know the various types and characteristics of radiation (e.g., alpha, beta, gamma) and their interactions in matter. Understand half-life, Ci, & Bq.

Day Two

Description	**Objectives**
Radiation Detection Equipment • Types of equipment • Appropriate uses • Demonstration of equipment • Self-reading dosimeters	Understand how to select and operate equipment for the different types of radiation. Understand the basic design principles of various detectors.
Radiation Dosimetry • Exposure and dose units • Types of dosimeters; how they work • NRC dose limits • Dose calculations	Understand radiation exposure and dose units (e.g., rad, rem, R, RBE, LET, QF). Know NRC dose limits. Know how to calculate does from a point source.
Radiation Protection • Time, distance, shielding • Rules for protection from radiation (including apparel) • Posting requirements • ALARA	Know methods used for radiation protection (e.g., time, distance, shielding, contamination control). Know how to apply inverse square law. Know what ALARA is and how to implement.
Sources of Radiation Exposure • Naturally occurring • Medical • Occupational • Lifestyle	Understand typical levels of radiation exposure from common sources. Understand perceived vs. real risk.

Day Three

Description	**Objectives**
Radiation Biology • Cellular, tissue, and systemic effects • Delayed effects, early somatic effects • Acute radiation syndrome • Hormesis, threshold vs. non-threshold	Understand the biological effects of radiation and the dose levels where these effects occur.
Risk vs. benefit	Understand perceived vs. real risk
Radiation Safety Programs • Written programs • Key elements (e.g., RSO/RSC, facility design, PPE, procedures, records, audits) • Recordkeeping requirements • Annual reviews	Know key elements of a radiation safety program. Know how to develop an effective program.
Responsibilities for Radiation Safety • Who is responsible • Legal issues	Understand the various responsibilities for radiation safety.
Transportation • Regulatory requirements (NRC, DOT, IATA) • Shipper's responsibilities	Know regulatory requirements for transporting radioactive materials. Know shipper's responsibilities.
Radioactive Waste Management • Types of waste • Disposal options • Transfer vs. storage	Know radioactive waste disposal regulations and options (e.g., sewer, DIS) Understand waste transfer and storage requirements (e.g., facility needs).

Day Four

Description	**Objectives**
NRC Regulations • Parts 30-35 (types of licenses) • Special requirements (gauges and licenses) • Parts 19 and 20	Understand general vs. specific license. Know which NRC regulations pertain to the different licenses (gauge, medical, etc.). Know critical provisions of these worker information and protection standards.
Emergencies • Types of emergencies (gauge, medical, academic) • Procedures • Source leakage, loss • Emergency personnel as responders • Performance based training • Interactions with the public, media, and employees	Understand the RSO's role in planning for and preventing accidents. Know how to develop an emergency plan.

Day Four (contd.)

Description	Objectives
Gauge Operations • Types • Uses • Manufacturing of gauges	
Day Five	
Writing a License • New, renewal, and amendment applications • NRC Form 313 or equivalent for Agreement states • Content • Fees	Understand the do's and don'ts when writing a license. Know what references are available for assistance (e.g., NRC Regulatory Guides).
Reportable Incidents • When to/not to report an incident • Interactions with the public and media	Know NRC requirements for reporting incidents and misadministrations (medical). Understand the NRC's media notification criteria. Know key aspects of communicating with the public & media.
NRC/State Inspections • How to prepare • How to deal with inspectors • What to do if your inspection is going badly • What to do if called for an enforcement conference	Understand the inspection process. Know how to prepare for and respond to enforcement activities.
Interactions with the public and media • Discussion of media contacts and public information on the sensitive issue of radiation	Understand the NRC's media notification criteria. Know key aspects of conducting interviews with the public and media.
Examination	Complete exam and score 85% or better.

NDC SYSTEMS

5314 North Irwindale Avenue
Irwindale, CA 91706 U.S.A.
Direct Phone: (818) 939-3817
Fax: (818) 939-3871

Fax Cover Sheet

DATE: November 27, 1996

TO: Kent Prendergest **FAX:** 510 975-0381

COMPANY: USNRC

FROM: Holly McKnight

RE: Radiation Safety Officer Training

CC: Daniel Fishman, President, NDC Systems

Number of pages including cover sheet: 2

We have arranged with Sue Englehardt of Englehardt & Associates to provide the subject training for Gene Murakami. Ms. Englehardt's course is approved by the states of Georgia (Tom Hill) and Florida (Walter Coffer). Jim Mullauer of Region III, Ed Bailey of the State of California and Beth Prange are all familiar with Ms. Englehardt's programs. Please let me know as soon as possible if her course will meet with NRC approval.

Here it is

57248

ENGELHARDT & ASSOCIATES, INC.

Presents...

A 5-Day Radiation Safety Officer Course

May 6-10, 1996

Madison, Wisconsin

This course is designed to meet 40-hour requirements of the NRC/Agreement States for most radiation safety personnel.

- Basic Math Review
- Radiation and Radioactive Decay
- Radiation Quantities and Units
- Biological Effects of Radiations
- Revised 10CFR Part 20
- 10CFR 19, 30, 33, 34 and 35 Requirements
- Radiation Risks
- Radioactive Waste Disposal
- Radiation Measurements
- Personal Dosimetry
- Licensing Requirements
- Records Management
- Preparing for Radiation Safety Inspections
- Emergency Response
- Laboratory work - use of instruments, survey techniques

Who Should Attend:

People in industry, hospitals and universities who are responsible for radiation safety or need to understand the principals of radiation safety. Excellent course for the newly appointed RSO.

s1

U.S. NUCLEAR REGULATORY COMMISSION TELEPHONE OR VERBAL CONVERSATION RECORD	DATE:11/27/96 TIME: 2:00P am or pm

INCOMING CALL	OUTGOING CALL	VISIT

PERSON CALLING	ADDRESS	PHONE # / EXTENSION
Kent Prendergast	**RIV, WCFO**	**(510)975 - 0255**
PERSON CALLED: Holly Mc Knight	ADDRESS: NDC Systems	PHONE # / EXTENSION: (818)939-3617

CONVERSATION

SUBJECT: AMENDMENT REQUEST

SUMMARY: I Called Holly McNight regarding their May 27, 1996 faxes regarding whether we recognize Englehardt and Associates for the 40 hour radiation safety office course. She indicated they are approved for the 40 hour radiation safety course by Georgia and Florida. I explained if they were approved by an agreement state we would also approve them. I also explained that Beth and I had discussed Englehardt and Ass. and that she was familiar with them and they were approved for users of sealed sources and gauges. Holly also indicated that the course would be held in January at NDC.

REFERRED TO: MS-15	ADVISE ME OF ACTION TAKEN (Y) OR (N)
ACTION REQUESTED Provide information	INITIALS: KP (KM) DATE 11/27
ACTION TAKEN	INITIALS: DATE NRC FORM 218 REPO (2-89;KMP)

5724 18

U.S. NUCLEAR REGULATORY COMMISSION TELEPHONE OR VERBAL CONVERSATION RECORD	DATE:11/21/96 TIME: 2:00P am or pm

INCOMING CALL	OUTGOING CALL	VISIT

PERSON CALLING **Kent Prendergast**	ADDRESS **RIV, WCFO**	PHONE # / EXTENSION **(510)975 - 0255**
PERSON CALLED: Dan Fishman	ADDRESS: NDC Systems	PHONE # / EXTENSION: 818939-3300

CONVERSATION

SUBJECT: RSO POSITION

SUMMARY: I Called Dan Fishman to explain that I cannot approve NDCs request for Gene Murakami to be the RSO until he had completed an appropriate course in Radiation Safety or health physics. Dan indicated they would be sending Gene to a week-long Radiation Safety Officer course in the near future as soon as he can schedule it. I indicated for him to let me know when the course has been completed and to fax me a copy of the course completion certificate. After receiving the course completion certificate I will complete the license amendment.

REFERRED TO: MS-15	ADVISE ME OF ACTION TAKEN (Y) OR (N)
ACTION REQUESTED Provide information	INITIALS: KP KMP
	DATE 11/21/96
ACTION TAKEN	INITIALS:
	DATE
	NRC FORM 218 REPO (2-89;KMP)

5 72418

NDC SYSTEMS

5314 North Irwindale Avenue
Irwindale, CA 91706 U.S.A.
Direct Phone: (818) 939-3817
Fax: (818) 939-3871

Fax Cover Sheet

DATE: November 20, 1996

TO: Kent Prendergest **FAX:** 510 975-0381

COMPANY: USNRC

FROM: Holly McKnight

RE: Gene Murakami

CC: Daniel Fishman

Number of pages including cover sheet: 2

Attached is a more detailed history of Gene Murakami's experience with radioactive material. As you can see, he has had many years of hands on experience with many different types of sources and applications. If you have any questions please call me at the above number.

Regards,

Holly McKnight

572418

Eugene Murakami

Experience,

a. NDC Systems
1985 to present
Electronic Engineer,
Design, development and field installation of industrial gamma and beta gauging systems
b. Am241, Cm244, Kr85, Pm147, Sr90,
c. Design & upgrading of source holders, handling of sources for r&d projects, supervision and inspection of source loading procedures in equipment

a. Level Link
1970 to present
Electronic Engineer,
Design, development and field installation of industrial gamma gauging systems
b. Cs137 (up to 5 curies), Co60 (up to 2 curies)
c. Design of source holders, loading of sources, supervising installation of source holders at customer sites, certifying safe installation.

a. Nucleonics Data Systems
1970 to 1974
Radiation Safety Officer, Electronic Engineer
Design, development and field installation of Industrial X-ray fluorescence gauging systems.
b. Am241 (up to 1 curie), H3 (up to 1 curie)
c. Design of source holders, loading of sources, field installation of equipment, certify installations.

a. General Nucleonics
1966 to 1970
Electronic Engineer
R&D, application of X-ray system to aerospace applications
Design and Development, use of Krypton 85 gamma energy in zero gravity fluid measurement.
b. Kr85

a. Giannini Corp
1962 to 1966
Electronic Engineer
R&D, use of X-ray systems in aerospace applications

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV

Walnut Creek Field Office
1450 Maria Lane
Walnut Creek, California 94596-5368

OCT 18 1996

NDC Systems
ATTN: Daniel Fishman
President
5314 North Irwindale Avenue
Irwindale, California 91706

SUBJECT: ACKNOWLEDGMENT OF REQUEST FOR LICENSING ACTION

REFERENCE: Letter dated October 8, 1996

We have completed the administrative review and initial processing of your application.

Please note that the technical review may identify additional omissions in the submitted information or technical issues that require additional information.

Amendment actions are normally processed within 90 days, unless the technical review identifies:

- Major technical deficiencies
- Policy issues that require input and coordination with other NRC Regional offices, Agreement State offices, or NRC's Office of Nuclear Materials and Safeguards

A copy of your correspondence has been forwarded to our License Fee and Accounts Receivable Branch, Office of the Controller, who will contact you separately if the appropriate license fee has not been submitted for your request, or for billing if your request is subject to full cost recovery.

Any correspondence about this application should reference the Control number listed below.

Sincerely,

Beth A. Prange

Beth Prange
Sr. Health Physicist (Licensing)
Materials Branch

Docket No. 030-20431
License No. 04-23264-01
Control No. 572418

bcc:
Docket File

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OFFICE	RIV:AO:NMLB	N		N				
NAME	J. Garcia JG		B. Prange BGP					
DATE	10/18/96		10/18/96					

Amendment

NDC SYSTEMS

5314 North Irwindale Avenue
Irwindale, California 91706 USA
Tel (818)960-3300 Fax (818)939-3870

04-23264-01

October 8, 1996

Mr. James L. Montgomery
Senior Materials Specialist
Radioactive Materials Safety Branch
U.S. Nuclear Regulatory Commission
1450 Maria Lane
Walnut Creek, CA 94956-5368

Subject: NRC Specific License #030-20431

Dear Mr. Montgomery:

I would like to amend the subject license to change the Radiation Safety Officer from myself to Eugene Murakami. I am enclosing his Statement of Training and Experience. If you have any questions please do not hesitate to give me a call.

Sincerely yours,
NDC SYSTEMS

Daniel Fishman
President

DF:hm

572418

Radiologic Health Branch
744 P Street
Sacramento, California 95814

STATEMENT OF TRAINING AND EXPERIENCE

(Use additional sheets as necessary)

Instruction: Every individual proposing to use radioactive material is required to submit a Statement of Training and Experience in duplicate to the address given above. Physicians should request Form RH 2000 A when applying for human use authorizations.

1. Name of proposed user: Eugene Murakami Position title: Sr. Engr.
   Address: 5314 N. Irwindale Ave. City: Irwindale, CA Zip: 91706
   To be included on Lic. No. _____ in name of _____

2. Description of proposed use

   Manufacture and service of industrial guaging equipment.

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3. Training:
   a. High School Graduate: Yes X No ____
   b. College or University: Name and location UCLA
      Years completed 5 Degree BS Course of study Engineering
   c. Education specifically applicable to use of radioactive material

4. Experience:
   a. List experience with radioactivity beginning with most recent
      (1) Dates: From 1984 to present
      Title and duties: Sr. Engr. - Design gamma backscatter & XRF gauges, Alternate RSO
      Employer: NDC SYSTEMS Address: Irwindale, CA
      (2) Dates: From 1974 to present
      Title and duties: Consultant - design gamma transmission gauges
      Employer: Level Link Address: Orange, CA
      (3) Dates: From 1970 to 1974
      Title and duties: Radiation Safety Officer, electronic engineer, R&D and field installation of industrial nucleonic gauging systems.
      Employer: Nucleonic Data Systems Address: Irvine, CA
      (4) From 1966 to 1970 - Electronic engineer, R&D on application of radioisotope & X-ray energy to industrial & aerospace equipment. - General Nucleonics - Pomona, CA

b. Radioactive materials previously used. Cite typical radioisotopes in appropriate box and key to Part 4.a above:

	Quantities Handled			
	Microcuries	Millicuries	Curies	Kilocuries
Sealed sources		*	**	
Unsealed alpha emitters				
Unsealed beta-gamma emitters				
Neutron sources				

* Am-241, Cm-244(1), Kr-85, Pm-147, Sr-90 (4)
** Cs-137, Co-60(2), H3, Am-241 (3)

c. Describe procedures similar to those proposed in Part 2 with which you have had experience. Indicate months or years for each and key to Part 4.a above.

(1) Design gamma backscatter & XRF gauges, beta transmission gauges.
(2) Design & field installation of gamma gauges, industrial application.
(3) R&D and field installation of X-ray fluorescence equipment in industrial application.
(4) R&D on industrial gamma equipment using Krypton sources.

d. Indicate which types of facilities you have used and key to Part 4.a.

( ) Ordinary Chemical laboratories
(x) "Controlled Area" (Type B) laboratories (3)
(x) Glove boxes (4)
( ) Shielded glove boxes
( ) Caves with remote manipulators
(x) Field operations with portable equipment (2) (3)

5. Certificate:

I hereby certify that all information contained in this Statement is true and correct.

Signature of proposed user — Date: 10/04/96