IONICS
IONICS, INCORPORATED
P. O. BOX 99, BRIDGEVILLE, PENNSYLVANIA 15017
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September 27, 1984

Mr. Jack Davis
Nuclear Materials Section A
Division of Engineering & Technical Programs
U.S. Nuclear Regulatory Commission, Region I
631 Park Avenue
King of Prussia, PA 19406

Ref: Source Material Application
Docket No. 040-08860
Control No. 02873

Dear Mr. Davis:

The following information is furnished in response to your letter dated September 20, 1984:

1.) RE: Item 10. Our contract with Applied Health Physics, Inc. (AHP) provides for radiation safety services "on call" as needed by us. Although Robert G. Gallaghar has been designated as our radiation safety officer (RSO), we also have at least two (2) assistant RSO's who have graduated from AHP's 5-day RSO training programs who will provide day-to-day services as required. Their names and qualifications are attached for your review. Obviously, there will be periods of time after the depleted uranium (dU) has been received when no one will be working on this project; thus, no need for an RSO to be on site at Ionics. However, since AHP is within a few miles of our plant, these services can and will be obtained from them as necessary whenever we are actually working with the dU. In the meantime, we do not intend to, nor do we believe it is your intention to imply that we must have an RSO or assistant RSO on site, "day-to-day" waiting on a daily basis for us to resume intermittent operations on the dU which will otherwise be locked in storage.

2.) RE: Attachment 1, Item 9 of our application. The individual who will survey the dU will be Robert G. Gallaghar and/or the individuals previously named in Item 1.

3.) The radiation survey instrumentation which will be used will include the following:

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Alpha gas proportional ionization survey meters; Eberline models PAC 3G or 4G or Eberline alpha scintillation survey meter (PAC-1SAGA). Beta-gamma instruments will include Victoreen, Ludlum or Bicron pancake GM survey meters. Gamma survey instruments will include tissue equivalent ion chamber, Health Physics Instrument HP1010; Victoreen; Ludlum; or Eberline ion chamber survey meters. Air samplers are personal (lapel) monitors manufactured by Mine Safety Appliance Company (MSA) or Bendix. This may be augmented by low volume or high volume air samplers manufactured by Bendix or Staplex. All instruments are calibrated by AHP at frequencies not to exceed 90 days. AHP's NRC license number is 37-09135-01 which expires 9/30/88.

4.) All incoming dU shipments will be held at our receiving area away from other shipments. AHP will be notified promptly. They will monitor the shipment for alpha contamination using the survey instruments described in Item 3 above; smears of all exterior surfaces will be taken and analyzed by AHP in their internal gas proportional alpha/beta counter (NMC PC-55). The RSO or his designated assistant will verify and document that the shipping and receiving records are consistent with the survey findings. If there are any discrepancies, we will notify the shipper and the appropriate regulatory agencies accordingly.

We trust that this information will be adequate to facilitate the completion of your review of our application and issuance of a source materials license which is urgently needed.

Very truly yours,

IONICS, INCORPORATED
Bridgeville Plant

C. J. McCurdy
General Manager

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Enclosures

NAME: JOHN H. DOUGLAS TITLE: Manager, Radiation Instrument Services & Assistant Radiation Safety Officer (RSO)

8. TYPE OF TRAINING		Where Trained	Duration of	On-the-Job	Formal Cours
a. Principles and practices of radiation protection	1.	PITTSBURGH-DES MOINES STEEL CO. ("PDM"), Neville Island, Pittsburgh, PA 15225	3 months	Yes	Yes
	2.	APPLIED HEALTH PHYSICS, INC. (AHP)	2 months 1 week*	Yes	Yes Yes*
b. Radioactivity measurement standardization and minotoring techniques and instruments	1.	PDM	6 months	Yes	Yes
	2.	AHP	4 months 1 week*	Yes	Yes Yes*
c. Mathematics and calculations basic to the use and measurement of radioactivity	1.	PDM	1 week	Yes	Yes
	2.	AHP	4 weeks	Yes	Yes*
d. Biological effects of radiation	1.	PDM	1 week	Yes	Yes
	2.	AHP	1 week	Yes	Yes*

OTHER: 2 years electronics school

(a) Allegheny Techechnical Institute

(b) Community College of Allegheny County

*Graduated #2 in class AHP's 5 day course for Radiation Safety Officer Course, Pittsburgh, Pa., 10/82

Graduated Chem-Nuclear 5 day course for Radioactive Materials Handling, Packaging, Transportation & Disposal," Barnwell, N.C. 11/82.

Graduated Emory Air Freight 1 day Seminar, "Hazardous Materials Transportation Safety," Pittsburgh, Pa., 4/8/83.

NAME: JOHN H. DOUGLAS TITLE: Manager, Radiation Instrument Services & Assistant Radiation Safety Office (RSO)

9. EXPERIENCE WITH RADIATION

Isotope	Maximum Amount	Where Experience Was Gained	Duration of Experience	Type of Use
Ir-192	100 Curies	PDM - Level I Radiographer	2 1/2 years	Radiography
Co-60	50 Curies	PDM - Level I Radiographer	2 1/2 years	Radiography
Cs-137	1 Curie	Calibration Source (PDM)	8 months	Calibration
Cs-137	13 Curies	Calibration Source (AHP)	46 months	Calibration
Ra-226	99.3 mCi	Calibration Source (AHP)	46 months	Calibration
Pu-239	2 uCi	Alpha Calibration Sources (also AM-241)	46 months	Calibration
Sr-90 & Pu-239	dpm standards	Efficiency check sources	46 months	Leak testing
Am-241	Up to 500 mCi; Sr-90 up to 100 mCi; Co-60 up to 2 Ci	Leak testing and assisting in removal for storage/transfer of industrial gauges	46 months	Leak testing transfer and disposal

ADDITIONAL QUALIFICATIONS: Presently employed at Applied Health Physics, Inc., Bethel Park, PA supervising the repair and calibration all types of radiation survey instrumentation and performs field services (leak testing, surveys, waste disposal, etc.). His experience in the radiographic use of a 260 kvp x-ray machine (Andrex) and radionuclides enables John H. Douglas to provide valuable assistance in AHP's training courses and field demonstrations.

AME: John Harshman, Health Physics Technician

8. TYPE OF TRAINING	Where Trained	Duration of Training	On-the-Job (yes or no)	Formal Course (yes or no)
a. Principles and practices of radiation protection	APPLIED HEALTH PHYSICS, Inc. (AHP)	2 years 5 days	yes	yes
b. Radioactivity measurement standardization and monitoring techniques and instruments	" " "	2 years 5 days	yes	yes
c. Mathematics and calculations basic to the use and measurement of radioactivity	" " "	2 years 5 days	yes	yes
d. Biological effects of radiation	" " "	5 days		yes

9. EXPERIENCE WITH RADIATION

Isotope	Maximum Amount	Where Experience Was Gained	Duration of Exper.	Type of Use
Am-241	500 mCi	AHP decon of Am-241 spill, Jollytown, PA	6 months	decon & LLRW waste
Cs-137	2000 mCi	AHP decon of Cs-137 spill, Hebron, OH	5 months	decon & LLRW waste
Ra-226	100 mCi	Applied Health Physics	2 months	calibration
Cs-137 Co-60	500-2000 mCi	Burns & Roe; J & L Steel; U.S. Steel; U.S. D.O.E. & other AHP clients	3 months	radiation safety surveys & leak testi

ADDITIONAL QUALIFICATIONS: