| FOR (3-8) 10 (| M NRC-313 I U.S 0) FR 30 | S. NUCLEAR REGULATORY | COMMISSION | 1. APPLICATION FOR: (Check and/or complete as appropriate) 30 - 19629 | | |
|---------------------------------------|--|---|---|--|--|--|
| | APPLICATION FOR | BYPRODUCT MATERI INDUSTRIAL | AL LICENSE | X 9. NEW LICENSE | | |
| See | attached instructions for details. | | | b. AMENDMENT TO: LICENSE NUMBEE | | |
| Comp Office Washi 1717 | leted applications are filed in du, of Nuclear Material Safety, and ington, DC 20555 or applications H Street, NW, Washington, D. C. | plicate with the Division of F Safeguards, U.S. Nuclear Reg may be filed in person at the or 7915 Eastern Avenue, Silv | uel Cycle and Material Safety, ulatory Commission, & Commission's office at ver Spring, Maryland. | c, RENEWAL OF: T LICENSE NUMBER WY 19983 | | |
| 2. AP | PLICANT'S NAME (Institution, fin | rm, person, etc.) | 3. NAME AND TITLE OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION | | | |
| De TEL 23 | PARTMENT OF TRANSPORT EPHONE NUMBER: AREA CODE 6-5242/317 | tation, Indpls, IN E - NUMBER EXTENSION | Gravdon Leucht - Manager TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION 236-5242/317 | | | |
| A. AP (Ac sho Rn 20 II | PLICANT'S MAILING ADDRESS ddress to which NRC correspondent build be sent.) 1 B-31 City-County Buil 10 E. Washington Streed dianapolis, Indiana | (Include Zip Code) ce, notices, bulletins, etc., ilding, Marion Cty. et 46204 | 5. STREET ADDRESS WHERE (Include Zip Code) Rm B-31 City-Count 200 East Washingto Indianapolis, Indi | E LICENSED MATERIAL WILL BE USER ty Building, Marion Cty. on Street iana 46204 | | |
| 6. IN | (IF MORE SPACE IS IDIVIDUAL(S) WHO WILL US are (terms 16 and 12 for required tra | NEEDED FOR ANY ITEM, SE OR DIRECTLY SUPER | USE ADDITIONAL PROPE VISE THE USE OF LICENSE dividual named below | D MATERIAL | | |
| | FULL NA | ME | | TITLE | | |
| | andon Loucht | | Manager | | | |
| Alton Allen Mike Smith | | | Assistant Testing Supervisor Testing Techician | | | |
| c. Mi | ke Fain | | Testing Techicia | an | | |
| 7. RA | ADIATION PROTECTION OFFICE | ER | Attach a resume of person's tra 16 and 17 and describe his respo | ining and experience as outlined in Items onsibilities under Item 15. | | |
| | iraydon Leacht | 8. LICENSE | DMATERIAL | | | |
| LINE | ELEMENT AND MASS NUMBER | CHEMICAL AND/OR PHYSICAL FORM | NAME OF MANUFACTURE AND MODEL NUMBER (If Sealed Source) | R MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME D | | |
| NO. | Α | B | As per Troxler | No single source | | |
| (1) | Cs 137 | Sealed Source | drawing#A-102112 | to exceed 9 m Ci | | |
| (2) | Radium 226 | | drawing #100604 | to exceed 3 m Ci | | |
| (3) | 8902170274 871 REG3 LIC30 | PNU | | | | |
| (4) | 13-19983-01 | | free from - | The second se | | |
| | | DESCRIBE USE OF | LICENSED MATERIAL | - manufic (10) | | |
| | For use in a Troxler | r Model 3411B Surfac | ce Moisture density g | gauge to measure propertie | | |
| (1) | OF CONST PULLET INTE | a to the state of a | | | | |
| (1) | For use in a troxlen | r Model 2401 Surface | e Moisture density ga | auge to measure properties | | |
| (1) (2) (3) | For use in a troxler of construction mate | r Model 2401 Surface erials. | a Moisture density ga | uge to measure properties | | |

FORM NRC-313 | (3-80)

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| | | | the second s | | | |
|---|---|--|---|---|---|--|
| L-ZEO | CONTAINER AND/OR DEVICE IN WHICH EASOURCE WILL BE STORED OR USED. | | ACH SEALED | NAME OF MANUFACTURER | | MODEL NUMBER |
| 1) | Surface Maist | uno Donaitu Cou | | The law Flactor | | 74115 |
| 2) | Surface Maint | Density Gau | | Troxler Electronics | | 34118 |
| 3) | Surrace Moist | ure Density Gaug | uge Troxler Electronics | | ectronics | 2301 |
| | | | | | | |
| | - | 10. RAI | DIATION DETE | CTION INSTRUM | ENTS | |
| | TYPE OF INSTRUMENT | MANUFACTURER'S NAME | NUMBER | NUMBER AVAILABLE | RADIATION DETECTED (alpha, beta, gamma, neutron) E | SENSITIVITY RANGE (milliroentgens/hour or counts/minute) E |
| 1) | | | | | | |
| 2) | an a sa an | | NONE | | | |
| 3) | | | | | | |
| 1) | | | and a second start is the second start of the | | | |
|] a. | NAME, ADDRESS, AN | ND FREQUENCY | | Attach a separat used for calibrat | te sheet describing meth ting instruments. | od, frequency and standards |
|] | NAME, ADDRESS, AN | ND FREQUENCY 12. PER | SONNEL MON | Attach a separat used for calibrat | te sheet describing meth ting instruments. | od, frequency and standards |
|]a. | CALIBRATED BY SER NAME, ADDRESS, AN (Check and/or complete A | ND FREQUENCY 12. PER as appropriate,) | SONNEL MON | Attach a separat used for calibrat UTORING DEVICE SUPPLIER (Service Company) B | te sheet describing meth ting instruments. | od, frequency and standard. EXCHANGE FREQUENC C |
| c (1 c (1 | CALIBRATED BY SER NAME, ADDRESS, AM (Check and/or complete A FILM BADGE sugg Type THERMOLUMINESCE DOSIMETER (TLD) | 12. PER 12. PER as appropriate.) gested badge is G ENCE | Suggested R. S. Lar Glenwood Glenwood | Attach a separat used for calibrat ITORING DEVICE SUPPLIER (Service Company) B supplier: idauer Jr., an Science Park Illinois 60 | ne sheet describing meth ting instruments. ES nd Company 04.25 | Od, frequency and standards |
|] a. C (1] (2) (3 | CALIBRATED BY SET NAME, ADDRESS, AM (Check and/or complete A) FILM BADGE sugg Type) THERMOLUMINESCE DOSIMETER (TLD)) OTHER (Specify): | 12. PER 12. PER as appropriate.) ested badge is G ENCE | Suggested R. S. Lan Glenwood Glenwood, 312/755-7 | Attach e seperet used for calibrat UTORING DEVICE SUPPLIER (Service Compony) B supplier: idauer Jr., an Science Park 111inois 60 | ne sheet describing meth ting instruments. | od, frequency and standard. EXCHANGE FREQUENC C MONTHLY QUARTERLY OTHER (Specify): |
| 3 (1) | CALIBRATED BY SET NAME, ADDRESS, AM (Check and/or complete A (Check and/or complete (Check and/or complete (Check and (Check and (Check))) (Check and (Check and (Check))) (Check and (Check)) (Check and (Check)) (Check and (Check)) (Check and (Check)) (Check and (Check)) (Check and (Check)) (Check) | 12. PER 12. PER as appropriate.) sested badge is G ENCE | Suggested R. S. Lar Glenwood Glenwood, 312/755-7 | Attach a separat used for calibrat UTORING DEVICE SUPPLIER (Service Company) B supplier: idauer Jr., an Science Park Illinois 60 2000 | notated sketch(es) a | od, frequency and standard. EXCHANGE FREQUENC C MONTHLY QUARTERLY OTHER (Specify): |
| | CALIBRATED BY SET NAME, ADDRESS, AM (Check and/or complete A FILM BADGE sugg Type THERMOLUMINESCE DOSIMETER (TLD) OTHER (Specify); 13. FACILITIES A LABORATORY FACI STORAGE FACILITI REMOTE HANDLING RESPIRATORY PRO | 12. PER 12. PER 12. PER 13. PER 14. PER 15. Second 15. Secon | Suggested R. S. Lar Glenwood Glenwood, 312/755-7 Neck were appro- TIES, FUME HO CIAL SHIELDING WT, ETC. | Attach a separat used for calibrat USC CALIBRATE Attach a separat used for calibrat SUPPLIER (Service Company) B Supplier: ndauer Jr., an Science Park Illinois 60 2000 | nd Company 0425 notated sketch(es) a 20, if any), ETC. 20, ETC. | od, frequency and standard EXCHANGE FREQUENC C MONTHLY QUARTERLY OTHER (Specify): nd description(s). |
| | CALIBRATED BY SET NAME, ADDRESS, AM (Check and/or complete A) FILM BADGE sugg Type) THERMOLUMINESCE DOSIMETER (TLD)) OTHER (Specify): 13. FACILITIES A LABORATORY FAC 5. STORAGE FACILITI REMOTE HANDLING RESPIRATORY PRO AME OF COMMERCIAL | 12. PER as appropriate.) gested badge is G ENCE AND EQUIPMENT (Ch ILITIES, PLANT FACILI ES, CONTAINERS, SPEC 3 TOOLS OR EQUIPMENT, I WASTE DISPOSAL SER | Suggested R. S. Lar Glenwood Glenwood, 312/755-7 Neck were appro TIES, FUME HQ CIAL SHIELDING VT, ETC. ETC. 14. WAST RVICE EMPLOYE | Attach a separat used for calibrat USC CALIBRATE Attach a separat used for calibrat SUPPLIER (Service Company) B USUPPLIER (Service Company) (Service Company) (Se | the sheet describing methic ting instruments. ES and Company 0425 anotated sketch(es) a on, if anyl, ETC. aryl, ETC. | od, frequency and standard. EXCHANGE FREQUENC © MONTHLY © QUARTERLY © OTHER (Specify): |
| C (1) C (1) | CALIBRATED BY SET NAME, ADDRESS, AM (Check and/or complete A) FILM BADGE Sugg Type) THERMOLUMINESCE DOSIMETER (TLD)) OTHER (Specify): 13. FACILITIES A LABORATORY FAC) STORAGE FACILITI REMOTE HANDLING RESPIRATORY PRO AME OF COMMERCIAL N.A COMMERCIAL WASTE USED FOR DISPOSIN HE APPLICATION IS FO | 12. PER as appropriate.) gested badge is Gested badge is Gested badge is Containers, spece and EQUIPMENT (Ch ILITIES, PLANT FACILI ES, CONTAINERS, SPECE G TOOLS OR EQUIPMENT, 12 WASTE DISPOSAL SERVICE IS IG OF RADIOACTIVE WOR SEALED SOURCES A | Suggested R. S. Lan Glenwood Glenwood, 312/755-7 Neck were appro TIES, FUME HO CIAL SHIELDING WT, ETC. ETC. 14. WAST RVICE EMPLOYE S NOT EMPLOYE ASTES AND EST AND DEVICES AN | Attach a separat used for calibrat UTORING DEVICE SUPPLIER (Service Company) B I supplier: idauer Jr., an Science Park Illinois 60 2000 priate and attach an ODS (Include filtratio (fixed and/or tempore E DISPOSAL D D, SUBMIT A DETAI MATES OF THE TYN ND THEY WILL BE R | te sheet describing meth ting instruments. ES ad Company 0425 0notated sketch(es) a on, if any), ETC. ary), ETC. LED DESCRIPTION O PE AND AMOUNT OF TETURNED TO THE M | od, frequency and standards EXCHANGE FREQUENC © MONTHLY □ QUARTERLY □ OTHER (Specify): |

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| | | 9. | STORAGE OF | SEALED SOURC | ES | |
|----------|---|---|---|---|--|--|
| L-ZWZ | CONTAINER AND/OR DEVICE IN WHICH EA SOURCE WILL BE STORED OR USED. A. | | CH SEALED | NAME OF MANUFACTURER B. | | MODEL NUMBER |
| (1) | Surface Mois | Surface Moisture Density Gauge Troxler Electronics | | ectronics | 3411B | |
| (2) | Surface Mois | ture Density Gaus | ze | Troyler Electronics | | 2301 |
| (3) | Surface Morscure Density Gaug | | | | | |
| (4) | | | ************************************** | | 1999 - 18 ^{99 - 1} 999 - 1999 - 1997 - | |
| | | 10, RAD | DIATION DETE | CTION INSTRUM | ENTS | |
| L-ZWO. | TYPE OF INSTRUMENT | MANUFACTURER'S NAME | MODEL NUMBER | NUMBER | RADIATION DETECTED (sipha, beta, gemma, neutron) | SENSITIVITY RANGE (milliroentgens/hour or counts/minute) |
| | Α | B | C | D | E | F |
| (1) | | | NONE | | | |
| (3) | | | NUNE | | | |
| | | | | | | |
| 4) | | | | | | |
| | | 11. CALIBRA | TION OF INST | RUMENTS LISTE | D IN ITEM 10 | |
| | Check and/or competence | 12. PER | SONNEL MON | ITORING DEVICE SUPPLIER (Service Company) | ES | EXCHANGE FREQUENCY |
| DC (1 |) FILM BADGE SUG | gested badge is be G | Suggested R. S. Lan | supplier: dauer Jr., ar | nd Company | MONTHLY |
|] (2 | DOSIMETER (TLD) | CENCE | Glenwood Science Park Glenwood, Illinois 60425 | | QUARTERLY | |
| □ (3) |) OTHER (Specify): | | 312/755-7000 | | | OTHER (Specify): |
| | | Contraction of the Association | | | | |
| - | 13. FACILITIES | AND EQUIPMENT (Ch | eck were approx | priate and attach an | notated sketch(es) ; | and description(s). |
| a | LABORATORY FA | CILITIES, PLANT FACILI TIES, CONTAINERS, SPEC | TIES, FUME HOO | DDS (Include filtratio (fixed and/or tempor | on, if any), ETC. ary), ETC. | |
| 10 | RESPIRATORY PR | OTECTIVE FOLIPMENT | T, ETC. | | | |
| - CI. | HEORIA IONT PA | ELECTIVE EQUIPMENT, | 14. WAST | E DISPOSAL | | |
| NA | ME OF COMMERCIA | AL WASTE DISPOSAL SER | VICE EMPLOYE | D | | |
| BE TH | COMMERCIAL WAST USED FOR DISPOSI IE APPLICATION IS I | TE DISPOSAL SERVICE IS NG OF RADIOACTIVE W FOR SEALED SOURCES A | NOT EMPLOYE ASTES AND EST ND DEVICES AN | D, SUBMIT A DETAI MATES OF THE TY ID THEY WILL BE R | LED DESCRIPTION OF PE AND AMOUNT OF RETURNED TO THE N | DF METHODS WHICH WILL FACTIVITY INVOLVED. IF MANUFACTURER, SO STAT |
| | Sources will | be returned to t | he Manufact | turer | | |
| DRA | NPC 212 (2.80) | | | and the second se | | |

| | INFORMATION REQUIRED FOR TEMS 15, 16 AND 17 |
|----------------------|--|
| Describe separate | in detail the information required for Items 15, 16 and 17. Begin each item on a page and key to the application as follows: |
| 15. | RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (<i>if needed</i>), day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit. |
| 16. | FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc. |
| | a. Principles and practices of radiation protection. |
| | Badioactivity measurement standardization and monitoring techniques and instruments. |
| | c. Mathematics and calculations basic to the use and measurement of radioactivity. |
| | d. Biological effects of radiation. |
| | work experience with radiation, including where experience was obtained. Work experience or on- the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used. |
| | 18. CERTIFICATE |
| | (This item must be completed by applicant) |
| WARNIN | The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the meet of our knowledge and belief. IG18 U.S.C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or store to any department or agency of the United States as to any matter within its jurisdiction. |
| represent | ation to any department or agency of the Oniver States as to any matter that a provide the states as to any matter the states as the states as to any matter the states as to any matter the states as |
| See Se | etion 170.31, 10 CFR 1701 038 013 014 000 CERTIFYING OFFICIAL (Signature) |
| | 11 W 92 62 Graydon Leucht |
| | d TITLE V |
| 1) LICEN | ISE FEE CATEGORY: 8ª Manager |

| FORM | NRC-313 | (3-80) |
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RADIATION OFFICER

Graydon Leucht attended Troxler's Nuclear Density course in 1969 with purchase of machine. Attended Indiana State Commission in 1974 at the Research and Training Center, 1205 Montgomery, West Lafayette 1973. The gauges will be monitered by badges furnished by R. S. Landuer Jr. and Company, Glenwood, Illinois and will also be checked every six (6) months with model 3880 Leak Test Kits furnished by Troxler Electronics, Lake Villa, Illinois 60046. Various sites of construction of roads in Marion County will be tested by the gauges to insure compaction.

ASSISTANT TESTING SUPERVISOR

Alton Allen attended Indiana State Highway Commission's school for nuclear gauges at 1205 Montgomery Street, West Lafayette for one (1) day in 1977. Attended Indiana State Highway Commission's Nuclear Gauges class in Greenfield, Indiana in 1979 for one (1) day. His activities with Nuclear Gauges began in 1975 and include Testing on soils, sands, aggregates and asphalts.

LAB TECHNICIAN

Michael E. Fain has attended the Indiana State Highway Commission's Research and Training Center at 1205 Montgomery Street in West Lafayette Indiana for one (1) day. Attended the school in 1979 and 1980. He has operated the Nuclear Gauge for three (3) years. His activities with the gauge include testing various types of soils for the Department of Transportation.

TECHNICIAN

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Michael Smith attended two (2) courses of Instruction on Nuclear Gauges at the Indiana State Highway Commission Research and Training Center in West Lafayette, Indiana in 1977 and 1979. Each course was a one (1) day session. Smith has operated the gauge since 1977. His activities with the gauge include testing various soils, sands, aggregates and asphalt.