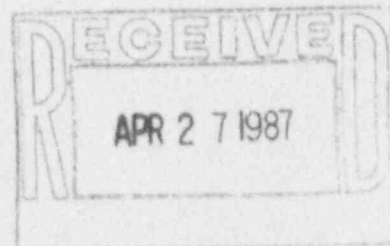


13 April 1987

Charles Cain
U.S. Nuclear Regulatory Commission, Region IV
Material & Radiation Protection Section
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76012



SUBJECT: Amendment to NRC License 35-14145-01

Dear Mr. Cain:

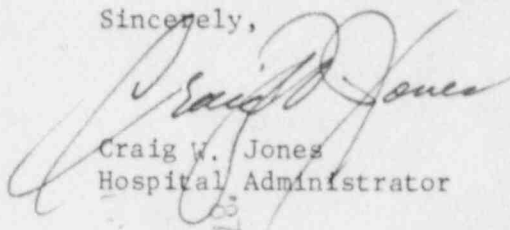
Enclosed please find amendments to our pending renewal which we would like for you to consider on an immediate basis to our existing license. These amendments request the modification of our license to permit the use of up to 20mCi ³²P chromic phosphate for intracavitary effusion radionuclide therapy. Dr. Acker is a Board-certified radiation therapy physician currently practicing under NRC License 35-12091-01 which is issued to Hospital Corporation of America Health Services of Oklahoma, Inc., doing business as Presbyterian Hospital of Oklahoma City.

We further ask that you consider these submissions as a revision of the renewal application which was forwarded to you in December 1986.

Enclosed please find a check in the amount of \$120.00 for consideration of these requests as an amendment to our current license.

Should additional information be required, please contact Mr. Bruce Smith at 405-321-1700 or Dr. Vernon Ficken at 405-271-5141.

Sincerely,


Craig W. Jones
Hospital Administrator

Encls.

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35-14145-01 PDR

FEE EXEMPT

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NRC-313
 Item 5 and 6
 Radioactive Material and Purpose

| | <u>Byproduct Material</u> | <u>Amount</u> | <u>Purpose</u> |
|-----|--|---|---|
| 5.a | Material in 10CFR 31.11 | as needed | 6.a In vitro testing |
| 5.b | Material in 10CFR 35.100 | as needed | 6.b Radiopharmaceuticals for uptake, dilution and excretion studies |
| 5.c | Material in 10CFR 35.200 | as needed | 6.c Radiopharmaceuticals, nobel gases, aerosols, generators and reagent kits for imaging and localization studies |
| 5.d | $^{131}\text{I}(\text{NaI})$ & $^{32}\text{P}(\text{NaPO}_4)$ in 10CFR 35.300 | $30\text{mCi } ^{131}\text{I}$ $20\text{mCi } ^{32}\text{P}$ | 6.d For treatment of hyperthyroidism, polycythemia vera, leukemia, bone metastases and intracavitary effusions |
| 5.e | Material in 10CFR 35.57 | within limits of 10CFR 35.57 | 6.e Calibration & reference sources |
| 5.f | ^{90}Sr eye applicator as in 10CFR 35.400 | 50mCi as of 3/14/74 3M Nuclear Model 6D 1A | 6.f Treatment of superficial eye conditions |
| 5.g | ^{153}Gd & ^{241}Am as in 10CFR 35.500 | as needed | 6.g Sealed sources for bone mineral analysis and camera pointer |

NRC-313
Item 7.1.6
Authorized User

Stephen E. Acker, M.D.

Currently practicing under NRC License 35-12091-01

Issued to HCA Health Services of Oklahoma, Inc. Doing business as Presbyterian Hospital of Oklahoma City.

Proposed use: 5.d ³²P for polycythemia vera, leukemia, bone metastases and intracavitary effusions.

5.f

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Item 7.1.6

NRC-313

Item 10.14

Radiopharmaceutical Therapy Safety

We have developed a procedure for radiation safety during therapeutic use of radiopharmaceuticals for your review.

1. Therapeutic use of radiopharmaceuticals will be limited to 30mCi of ^{131}I for hyperthyroidism and 20mCi of ^{32}P for polycythemia vera, leukemia and bone metastases or intracavitary therapy.
2. Therapy doses will be ordered only with the permission of the RSO or his designee.
3. For ^{131}I the following precautions will be taken:
 - a) Only capsules will be used for therapeutic purposes.
 - b) Doses will be stored in the hot lab area until they are used.
 - c) Each therapy dose will be ordered calibrated for the exact amount required for a given patient. Doses will be verified in the dose calibrator prior to administration to the patient.
 - d) ^{131}I doses will be dispensed from shielded containers.
 - e) Patients will be instructed on methods to minimize radiation dose to household members and the public.
4. When ^{32}P is used for intracavitary therapy, the following precautions will be taken:
 - a) A preliminary distribution pattern will be observed with colloidal $^{99\text{m}}\text{Tc}$ to verify that satisfactory distributions can be obtained with ^{32}P chromic phosphate.
 - b) The patient's room will be private with private sanitary facilities and should be without carpet.
 - c) The room will be prepared for the procedure as follows:
 1. Cover with absorbent paper the bed and any items that are likely to be contaminated.
 2. Prepare separate boxes for linen, disposable waste, and nondisposable contaminated items. Place a single large reclosable plastic bag in each box, or supply several small plastic bags.
 3. Stock additional disposable gloves, absorbent paper, and radioactive waste labels in the room for use as necessary by nursing, nuclear medicine, and radiation safety personnel.

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- d) Inform the Housekeeping Office that personnel should stay out of the room until otherwise notified.
- e) Brief the nurses on radiation safety precautions. Use the sample form, "Nursing Instructions for Patients Treated with Iodine-131, Phosphorus-32, or Gold-198." Leave a written copy of the radiation safety precautions in the patient's chart or at the nurses' station.
- f) Brief the patient on radiation safety procedures for the dosage administration, visitor control, radioactive waste, and other items as applicable.
- g) Only those persons needed for medical, safety, or training purposes should be present during the administration.
- h) Mark a visitors "safe line" on the floor with tape as far from the patient as possible.
- i) Following administration of the dosage, measure the distribution pattern to verify satisfactory distribution of the nuclide. Image the bremsstrahlung radiation with a gamma camera. Continue moving patient until satisfactory distribution has been obtained or until rotation is no longer practical.
- j) Measure the exposure rate in mR/hr at bedside, at 1 meter from bedside, at the visitors "safe line", and in the surrounding hallways and rooms. Exposure must be less than 2mR/hr and not to exceed 100mR in 7 days. Record this and any other necessary information on the nursing instructions form or the nurses' dosimeter signout form.
- k) As the therapy proceeds, pick up waste for transfer to a decay-in-storage or decontamination area.
- l) Do not release any patient until the exposure rate from the patient is less than 5mR/hr at 1 meter or the activity is less than 30mCi. Measure this exposure rate with an ionization-type survey meter at a distance of 1 meter from the umbilicus while the patient is standing or, if the patient is not ambulatory, 1 meter from the bedside with the patient supine.
- m) Before using the room for general occupancy, it must be decontaminated and released to the Admitting Office:
 - 1. Remove all absorbent paper and place in the appropriate container.
 - 2. Transfer all containers to a decay-in-storage or decontamination area.
 - 3. Use a low-range GM survey meter to check for room contamination. Clean contaminated areas until removable contamination is less than 200 dpm/100 cm². If the contamination is fixed, exposure rates will be less than 1mR/hr with the GM detector in contact with the contaminated surface.
 - 4. Call the Housekeeping Office to remove the cleaning restriction and call the Admitting Office to return the room to the vacant list.

Nursing Instructions for Patients Treated With Iodine-131,
Phosphorus-32, or Gold-198

Patient Name: _____ Patient Number: _____
 Attending: _____ Phone: _____ Pager: _____ Patient Room: _____
 Dose: _____ mCi of _____ as _____ was administered at _____: _____^{am}/_{pm}.

Signature: _____ Date: ____-____-____
 Radiation Exposure Rates

Unrestricted areas: door- _____ mR/hr; rm _____ - _____ mR/hr; rm _____ - _____ mR/hr
 Patient supine in bed or _____

| Date | Time | Bedside | 3 ft from bed | Door | |
|----------------|---|-------------|---------------|-------------|-------------|
| ____-____-____ | ____:____ ^{am} / _{pm} | _____ mR/hr | _____ mR/h | _____ mR/hr | _____ mR/hr |
| ____-____-____ | ____:____ ^{am} / _{pm} | _____ mR/hr | _____ mR/h | _____ mR/hr | _____ mR/hr |
| ____-____-____ | ____:____ ^{am} / _{pm} | _____ mR/hr | _____ mR/h | _____ mR/hr | _____ mR/hr |
| ____-____-____ | ____:____ ^{am} / _{pm} | _____ mR/hr | _____ mR/h | _____ mR/hr | _____ mR/hr |
| ____-____-____ | ____:____ ^{am} / _{pm} | _____ mR/hr | _____ mR/h | _____ mR/hr | _____ mR/hr |
| ____-____-____ | ____:____ ^{am} / _{pm} | | _____ mR/h | | |

Instructions

Visitor Restrictions:

- o No visitors.
- o No visitors under 18 or pregnant.
- o _____ minutes each day maximum for each visitor.
- o Visitors must stay behind line on floor at all times.

Nursing Restrictions:

- o Patient is restricted to room.
- o No nurses who are pregnant may render care.
- o _____ minutes each day per nurse in the room.

Patient Care:

- o Wear disposable gloves. Wash your hands after caring for patient.
- o Discard linen, bedclothes, plates, utensils, dressings, etc., in boxes in room.
- o Collect urine in containers provided. Discard feces in toilet.
- o Discard urine and feces in toilet. Flush three times.
- o Housekeeping personnel are not permitted in the room.
- o Only RSO may release room to admitting office.
- o Wear your radiation monitor when caring for patient. Leave at nursing station at the end of your shift. You may use the same monitor on your next shift. Do not share. Call RSO for additional monitors if needed.

o _____
 o _____

In case of emergency, or if you have a question, call:

RSO: _____ Work: _____ Home: _____-____-____ Pager: _____
 MD: _____ Work: _____ Home: _____-____-____ Pager: _____

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