



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

December 13, 2006

EA-06-159

Docket No. 03003375

License No. 47-01458-01

Michael Tillman  
Chief Operating Officer  
United Hospital Center  
P.O. Box 1680  
Clarksburg, WV 26302-1680

**SUBJECT: INSPECTION 03003375/2006001, UNITED HOSPITAL CENTER,  
CLARKSBURG , WEST VIRGINIA SITE AND NOTICE OF VIOLATION**

Dear Mr. Tillman:

On April 25, 2006, Randolph Ragland and Shirley Xu of this office conducted a safety inspection at the above address of activities authorized under your NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selected examination of representative records. Additional information provided in your correspondence dated May 2, 2006, and during a telephone conversation on November 14, 2006, between James Israel of your organization and this office were also examined as part of the inspection. The findings of the inspection were discussed with you and James Israel by telephone at the conclusion of the inspection on November 14, 2006. The enclosed report presents the results of this inspection.

Based on the results of this inspection, NRC has determined that your activities were not conducted in full compliance with NRC requirements. A Notice of Violation is enclosed that categorizes each violation by severity level. The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence is already adequately addressed on the docket and in our inspection report (enclosed). Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

Item B described in the attached Notice of Violation concerns physical presence of the Authorized User (AU) during a high dose rate remote afterloader patient treatment. Although the violation fits an example of a Severity Level III violation, as set forth in Supplement IV of the Enforcement Policy, after careful consideration of the factors involved in this specific instance, the NRC has decided to classify the violation at Severity Level IV. Section IV.B. of the NRC Enforcement Policy indicates that the examples in the Supplements are neither exhaustive nor controlling. In classifying the severity level of this violation at Level IV, the NRC considered 1) the AU was fully engaged in treatment planning and patient set-up, 2) the AU could respond to a patient emergency within 15 - 30 seconds if summoned by other staff assigned to monitor

the patient, 3) there were four staff members physically present who were trained to respond to a patient emergency, and 4) this was an isolated occurrence rather than a programmatic weakness in your radiation safety program; thus, this violation was determined to pose a minimal health and safety problem. Similar violations of this type in the future may result in additional enforcement action.

Current NRC regulations are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Toolkit Index Page**. The current Enforcement Policy is included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **What We Do, Enforcement**, then **Enforcement Policy**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Your cooperation with us is appreciated.

Sincerely,

***Original signed by Pamela J. Henderson***

Pamela J. Henderson, Chief  
Medical Branch  
Division of Nuclear Materials Safety

Enclosure:

1. Inspection Report No. 03003375/2006001
2. Notice of Violation

cc:

James Israel, Radiation Safety Officer  
Dan Hill, Chief, Radiological Health Program  
State of West Virginia

Distribution:  
 D. J. Holody, RI  
 R. Ragland, RI

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**SUNSI Review Complete: RRagland**

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OFFICE	DNMS/RI	N	DNMS/RI	DNMS/RI	DNMS/RI
NAME	RRagland rcr1		SXu sxx	PHenderson pjh1	BHolian jdk for
DATE	11/20/06		11/20/06	11/20/06	11/22/06
OFFICE	ORA/RI	N	RC/RI	NMSS	OE
NAME	DHolody jrw for		KFarrar kif	GMorell for C. Miller	D. Solorio for C. Carpenter
DATE	11/27/06		11/28/06	12/13/06	12/11/06

ENCLOSURE

NOTICE OF VIOLATION

United Hospital Center  
Clarksburg , WV

Docket No. 03003375  
License No. 47-01458-01

During an NRC inspection conducted on April 25, 2006, through November 14, 2006, two violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 35.41(a)(2) requires that for any administration requiring a written directive, the licensee shall develop, implement, and maintain written procedures to provide high confidence that each administration is in accordance with the written directive.

Contrary to the above, on April 11, 2006, and April 18, 2006, during treatment planning for two high dose rate remote afterloader (HDR) treatments, the licensee did not fully implement written procedures to provide high confidence that each administration was in accordance with the written directive. Specifically, the authorized medical physicist (AMP) failed to enter the correct film magnification factor into the Pinnacle treatment planning software as specified in the Pinnacle Brachytherapy Treatment Planning software instruction manual. As a result of this error there were two separate medical events involving two different patients that received doses in excess of 1000 cGy (1000 rad) rather than the prescribed 500 cGy (500 rad) during the first of six fractions of HDR treatments.

This is a Severity Level IV violation (Supplement IV).

- B. 10 CFR 35.615(f)(2) requires, in part, that for high dose rate remote afterloader units, that an authorized user (AU) and an AMP to be physically present during the initiation of all patient treatments involving the unit and that the AMP and an AU or a physician under the supervision of the AU be physically present during continuation of patient treatment.

Contrary to the above, on April 25, 2006, during initiation of a patient treatment, neither the AU, nor a physician under the supervision of an AU, was physically present during an HDR treatment. Specifically, the AU was inside his office located approximately 35 feet from the treatment console.

This is a Severity Level IV violation (Supplement IV).

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is already adequately addressed on the docket. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of

Notice of Violation  
United Hospital Center

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Violation,” and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

Your response will be placed in the NRC Public Document Room (PDR) and on the NRC Web site. To the extent possible, it should, therefore, not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated This 13<sup>th</sup> day of December 2006

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

INSPECTION REPORT

Inspection No. 03003375/2006001  
Docket No. 03003375  
License No. 47-01458-01  
Licensee: United Hospital Center  
Location: P.O. Box 1680  
Clarksburg, WV 26302-1680  
Inspection Dates: April 25, 2006 - November 14, 2006

Inspectors:	<b>/RA/</b>	<b>11/20/06</b>
	_____ Randolph C. Ragland, Jr. Senior Health Physicist	_____ Date
	<b>/RA/</b>	<b>11/20/06</b>
	_____ Shirley Xu Health Physicist	_____ Date
Approved By:	<b>/RA/</b>	<b>11/20/06</b>
	_____ Pamela J. Henderson, Chief Medical Branch Division of Nuclear Materials Safety	_____ Date

## **EXECUTIVE SUMMARY**

United Hospital Center  
NRC Inspection Report No. 03003375/2006001

On April 19, 2006, United Hospital Center (UHC), contacted the NRC Headquarters Operations Officer to report two medical events that occurred on April 11, 2006, and April 18, 2006, respectively (NRC Operations Center Event Report No. 42511). On April 25, 2006, NRC staff conducted an onsite inspection to review the details associated with the medical events. The inspectors determined that UHC's failure to fully implement written procedures during treatment planning for two high dose rate remote afterloader (HDR) treatments, resulted in two separate medical events. The inspectors also observed an HDR treatment where the authorized user (AU) was not present during initiation and continuation of the treatment. UHC followup actions including NRC notifications, determination of root causes and corrective actions, and patient followup were found to be effective and comprehensive. The UHC prescribing physician and NRC's medical consultant concluded that no significant patient harm was sustained. One violation for the failure to verify that the HDR administrations were in accordance with the treatment plan as required by 10 CFR 35.41(a)(2), was identified. In addition, one violation for the failure to meet the physical presence requirements for HDR procedures as required by 10 CFR 35.615(f)(2) was identified.

## REPORT DETAILS

### **I. Organization and Scope of the Program**

#### a. Inspection Scope

The inspectors reviewed the organization and scope of licensed activities including the nuclear medicine, manual brachytherapy, and high dose rate remote afterloader (HDR) programs. Information was gathered through discussions with cognizant personnel, tours of the facilities, and review of records.

#### b. Observations and Findings

The licensed program includes a full range of nuclear diagnostic and therapeutic procedures permitted by 10 CFR 35.100, 200, 300, 400, and 600.

The nuclear medicine department performs approximately 30 procedures per day, with the majority being cardiac studies, bone scans, and some gallbladder HIDA studies. Radioactive pharmaceuticals are typically received twice per day, once in the early morning and once in the afternoon. The majority of administrations are performed with unit doses, with some bulk Tc-99m used on an as needed basis. The program includes four cameras and six full time technologists.

Several therapeutic I-131 procedures are performed per month and include approximately 1 thyroid ablation per quarter. Patients who are administered radioactivity are released in accordance with the guidance included in NRC Regulatory Guide 8.39, "Release of Patients Administered Radioactive Materials." The Radiation Oncology department routinely performs Brachytherapy procedures including approximately one manual brachytherapy prostate implant per month using I-125 seeds and 1 - 2 HDR procedures per month using a Nucletron MicroSelectron-HDR.

Overall, the inspectors observed appropriate implementation of radiological control procedures for the safe use of radioactive material. Radioactive pharmaceuticals and sealed sources were appropriately shielded. Access to radioactive materials was controlled with locks, radiological postings, and trained personnel. Licensee staff wore appropriate dosimetry devices and a review of records and independent radiological surveys performed by the inspector confirmed that work area dose rates were maintained as low as is reasonably achievable.

#### c. Conclusions

Licensed activities were limited to the activities authorized by NRC License No. 47-01458-01. No violations of NRC requirements were identified.



## II. Management Oversight

### a. Inspection Scope

The inspectors reviewed management oversight of licensed activities. Information was gathered through reviews of Radiation Safety Committee (RSC) meeting minutes, nuclear medicine program audits, selected program records, and through discussions with cognizant personnel

### b. Observations and Findings

The RSC provided routine oversight of NRC licensed activities. Membership on the RSC included representatives from management, radiation oncology, nuclear medicine, nursing, and radiation safety. RSC records showed that licensed activities were reviewed and evaluated on a quarterly basis, and that program issues were identified, evaluated, and corrected as necessary.

A review of records showed that the nuclear medicine program was audited quarterly by a consultant and audit topics included daily surveys, sealed source inventories, source leak tests, dose calibrator quality controls, and reviews to ensure radiation exposures are as low as is reasonably achievable.

Records also showed that brachytherapy programs were routinely evaluated by the RSC. An authorized medical physicist added that although he routinely conducted quality control reviews of HDR treatments to verify accurate delivery of dose, completeness of records, and compliance with NRC regulations, these reviews were not formally documented. The inspectors reviewed program records and found them to be complete and well organized. Although a violation was not identified, inspectors pointed out that an opportunity existed to improve the documentation of the annual review of the radiation protection program content and implementation, if routine reviews of the HDR program were formally documented.

### c. Conclusions

Licensee management maintained adequate oversight of the content and implementation of licensed activities. An opportunity existed to improve the documentation of the annual review of the radiation protection program content and implementation, if routine HDR program assessments were formally documented. No violations of NRC requirements were identified.

### III. High Dose Rate Remote Afterloader Medical Event

#### a. Inspection Scope

On April 25, 2006, NRC staff conducted an onsite inspection of two medical events that occurred at UHC. The inspectors reviewed the chronology of events, treatment plans, how the events were identified, use of film magnification factors in treatment planning, modifications made to the patient's therapy regimens, and corrective and preventative actions. In addition, NRC contracted with an independent medical consultant to advise NRC regarding root causes, adequacy of licensee corrective and preventative actions, and potential deterministic effects on the patients.

#### b. Observations and Findings

On April 19, 2006, an authorized medical physicist (AMP), working at United Hospital Center (UHC), contacted the NRC Headquarters Operations Officer to report two medical events that occurred on April 11, 2006, and April 18, 2006 (NRC Operations Center Event Report No. 42511). Two female patients were being treated for cervical cancer with an HDR. The treatment plans directed each patient to receive six fractionated doses of 500 centigrays (cGy) (500 rads) for a total dose of 3,000 cGy (3,000 rads) each. The AMP reported that due to human error, an x-ray film magnification factor was not updated during computer treatment planning. As a consequence, the treatment planning software used a default value for the film magnification, and calculated a treatment time approximately twice as high as intended. The AMP calculated that on April 11, 2006, Patient A received 1,041 cGy (1,041 rads) rather than the prescribed 500 cGy (500 rads) for the first of 6 fractionated treatments, and on April 18, 2006, Patient B received 1,058 cGy (1,058 rads) rather than the prescribed 500 cGy (500 rads), for the first of 6 fractionated treatments. These overdoses constitute medical events (10 CFR 35.3045(a)(i)(iii)). Upon identification of the error, the attending Radiation Oncologist modified the treatment plan to compensate for the elevated dose delivered during the first fraction and to ensure the total treatment dose did not exceed the original prescribed dose.

On April 25, 2006, NRC staff conducted an onsite inspection of the medical event at UHC. The AMP described the chronology of events and how the treatment plans were developed. He explained that for HDR therapy for cervical cancer, conventional orthogonal x-rays are obtained. Specific anatomical points are identified on the films, the films are digitized, and the images are incorporated into a computerized treatment plan. He explained that because the x-ray beam expands in a conical shape, the image on the x-ray film positioned beneath the patient is slightly larger than the actual anatomical dimensions of the patient. Accordingly, a correction factor must be used to correct for film magnification. The AMP demonstrated the use of the Phillips Pinnacle System Brachytherapy Planning Version 6.2B treatment planning software. He entered a "Brachy Film Reconstruction" data entry screen for the x-ray source to axis distance (SAD) and x-ray source to film distance (SFD) and explained that the computer program calculates the film magnification from the difference in distances between the SFD and the SAD. The AMP explained that unless specific data for SFD and SAD are entered, the computer program assumes default distances of 100 centimeters for both, and

calculates a film magnification value of 1.0. The AMP demonstrated the impact of the film magnification factor on the treatment plans by running separate treatment plans using the default value for SFD of 100 centimeters versus the actual SFD of 145 centimeters, which should have been used. Without the adjustment for film magnification, the computer program assumes a larger target, and automatically calculates a longer exposure period.

The AMP stated that the root cause of the April 11, 2006, and April 18, 2006, medical events was human error and that he did not consult the vendors treatment planning software manual for guidance during data entry and simply inadvertently failed to input the source to film distance into the treatment planning computer to adjust for proper film magnification. He added that in hind sight, contributing causes included the lack of a formalized quality control checklist and the failure of a second reviewer to identify the errors.

The AMP stated that UHC Quality Management Program dated January 20, 2003, step 2.6, "Check Dose Calculations" requires that prior to the administration of the prescribed dose, a second check shall be performed of the dose calculations, and whenever possible, the calculation should be checked by someone other than the individual who made the original calculation. The AMP explained that typically an experienced dosimetrist provided quality control oversight during the data entry phase of HDR treatment planning. However, during treatment planning for the April 11, 2006, and April 18, 2006, procedures, the dosimetrist was away on sick leave. Consequently, the second review of the dose calculations and data entry verification were performed by a medical physicist who was not as familiar with the treatment planning software. The second reviewer failed to identify the AMP's data entry omission for both the April 11, 2006, and April 18, 2006, treatments. In addition, the data entry omission was difficult to detect because the film magnification factor does not appear on the final printed treatment plan.

On April 18, 2006, after returning from sick leave, the UHC dosimetrist participated in HDR treatment planning for the second of six fractionated HDR treatments for Patient A. During data entry, the dosimetrist reminded the AMP to enter the SFD for film magnification. Upon notification, the AMP recognized that he had failed to input the SFD during HDR treatment planning for the April 11, 2006, treatment for Patient A and for the April 18, 2006, treatment for Patient B. The AMP notified the prescribing physician and UHC management of the error in treatment planning and initiated an investigation. The AMP calculated that on April 11, 2006, Patient A received an average dose to the prescription points of 1,041 cGy (1,041 rads) rather than the prescribed 500 cGy (500 rads), and that Patient B received an average dose to the prescription points of 1,058 cGy (1,058 rads) rather than the prescribed dose of 500 cGy (500 rads).

Based on that information, the prescribing physician revised the treatment plans (written directives) for each patient to one treatment of approximately 1,000 cGy (1000 rads), plus four treatments of 350 cGy (350 rads) for a total HDR treatment dose of 2,400 cGy (2,400 rads). For both patients, the areas of the cervix had already been treated to 4,000 cGy (4,000 rads) by external beam treatments from a linear accelerator. The

prescribing physician reported that he does not expect a significant effect on the individual, either in terms of efficacy or potential side effects.

To determine the extent of condition, the AMP reviewed all treatment records for patients who had received similar treatments planned on the treatment planning system. Records showed that a similar mistake had not been made in the past.

The inspectors reviewed patient records and confirmed that the Written Directives for Patient A and Patient B were modified as reported and that there were no other examples of a similar mistake for this type of HDR patient treatment using this software.

To prevent this from recurring, the licensee implemented the following corrective actions:

- 1) A step was added to the treatment planning procedure to require a measurement on a film between two prescription points located approximately 4 cm apart. If there is a significant variance from 4 cm, then a review will be performed to determine the cause of the variance;
- 2) A treatment planning quality control checklist was developed that includes a check of the film magnification factor used; and
- 3) A spreadsheet was developed to allow for a completely independent calculation of dose to the prescribed points. If the independent dose differs from the computer generated treatment plan by more than 10%, then a review will be performed to evaluate the error.

On May 9, 2006, NRC contracted with Dr. Subir Nag, M.D., Professor of Clinical Radiation Medicine, Ohio State University Hospital, and member of NRC's Advisory Committee on the Medical Use of Isotopes, to act as NRC's Medical Consultant and to advise NRC regarding probable deterministic effects, event root causes, and evaluation of licensee reports. Dr. Nag conducted an independent review and submitted his final report to NRC on June 2, 2006. Dr. Nag agreed with the licensee's calculations of patient dose, determination of root causes, and he independently concluded that the patients will have no significant adverse effect since the subsequent doses were reduced so that the total biological dose and patient treatment were not compromised.

The inspectors noted that UHC notified the NRC of the medical events within one day of discovery of the event; UHC submitted a report to the NRC regarding the incident within 15 days of the incident; and UHC notified the referring physician of the event within 24 hours of the discovery. In addition, according to the prescribing physician, the patient's were briefed upon their return and notified that a written description of the event would be available upon request.

The inspectors pointed out that 10 CFR 35.41(a)(2) requires that for any administration requiring a written directive, the licensee shall develop, implement, and maintain written procedures to provide high confidence that each administration is in accordance with the written directive. The procedure for performing HDR treatment planning was contained

in a vendor manual for the Pinnacle Brachytherapy Treatment Planning, Release 7.4, software. Section 10.4.1, Film Reconstruction Setup, steps 4 and 5 addresses entering the source to axis distances and source to film distances.

The inspectors concluded that on April 11, 2006 and April 18, 2006, during treatment planning for two HDR treatments, UHC did not fully implement written procedures to provide high confidence that each administration was in accordance with the written directive. Specifically, the AMP failed to enter data to correct for film magnification in the Pinnacle treatment planning program as specified in the Pinnacle Brachytherapy Treatment Planning software instruction manual.

c. Conclusions

The licensee's failure to fully implement written procedures during treatment planning for two high dose rate remote afterloader treatments, resulted in two separate medical events that occurred on April 11, 2006, and April 18, 2006. UHC followup actions were found to be appropriate including NRC notifications, determination of root causes and corrective actions, and patient followup. The UHC prescribing physician and NRC's medical consultant concluded that no significant patient harm was sustained. One violation for the failure to verify that the administration was in accordance with the treatment plan as required by 10 CFR 35.41(a)(2), was identified.

#### **IV. HDR Physical Presence**

a. Inspection Scope

On April 25, 2006, inspectors performed a review of patient treatments using an HDR. Information was gathered through direct observations, a review of records, and interviews with cognizant personnel.

b. Observations and Findings

The inspectors noted that appropriate emergency procedures and a list of emergency contact information were posted at the HDR treatment console, that the facility was configured to prevent dual operation of radiation producing devices, and licensee staff participated in annual drills of the emergency procedures as required by 10 CFR 35.610.

The inspectors reviewed records of periodic spot checks and full calibration measurements for the HDR unit and discussed the performance of these tasks with the AMP. The AMP was thoroughly knowledgeable of spot check and calibration procedures, and documentation of these performance checks were complete and no significant deficiencies were identified.

During tours, the inspectors noted that the HDR unit was used and stored in a linear accelerator treatment room, and whenever the treatment room door was opened to allow access to the linear accelerator, the medical staff was required to maintain physical access control through the use of trained personnel. Although no access control security violations were identified during this inspection, the inspectors pointed

out that this method for HDR access control represented a potential security vulnerability if the medical staff providing access control had to immediately respond to a medical emergency away from the area. In order to reduce the access control vulnerability, UHC voluntarily initiated a modification to construct an HDR storage closet/cabinet, within the accelerator treatment room.

The inspectors observed the setup and performance of a patient treatment using the HDR. Upon initiation of the treatment by the AMP, the inspector interviewed the medical staff in attendance and found that the licensed authorized user (AU) was not in attendance at the treatment console. Upon notification, a nurse located the AU inside his office, engaged in a telephone conversation, located approximately 35 feet away from the treatment console. Upon notification by a nurse, the AU immediately reported to the treatment console.

Upon completion of the patient treatment, the inspectors discussed the 10 CFR 35.615(f)(2) requirements for maintaining physical presence at the initiation and continuation of HDR treatments with the AMP and AU. The inspector pointed out that the physical presence requirements in 10 CFR 35.615(f)(2) are intended to help ensure correct delivery of dose and timely emergency response. The term "physically present" is defined in Section V, "Summary of Changes," to the 2002 revised Part 35, as published in the Federal Register on April 24, 2002 (67 FR 20355). It states: "as used in this provision, physically present means to be within hearing distance of normal voice." Although the AU's office was only 35 feet away from the HDR console area, he was located inside the office and engaged in a telephone conversation. Therefore, the inspector concluded that the AU did not meet the 10 CFR 35.615(f)(2) physical presence requirement.

However, the inspectors did note that the AU was 1) fully engaged in treatment planning and patient set-up; 2) could respond to a patient emergency within 15 - 30 seconds if summoned by other staff assigned to monitor the patient; and 3) there were two nurses, one AMP, and one medical physicist physically located at the treatment console, who were capable and trained to respond to a patient emergency.

The AMP stated that although the inspectors observations served to clarify their understanding of the physical presence requirements of 10 CFR 35.615(f)(2), this failure to meet the physical presence requirements was an isolated event and that typically, the AU and AMP are physically present throughout all patient treatments with the HDR.

Upon notification of the potential violation, UHC reported that the root causes for this event were 1) the AU was momentarily delayed by a phone call, and 2) the AMP initiated the patient treatment without first verifying the physical presence of the AU. UHC management committed that AU and AMP physical presence will be verified prior to the initiation of all future patient treatments with the HDR.

c. Conclusions

The licensee staff was committed to ensuring the safe use of licensed materials. One violation for the failure to meet the physical presence requirements for HDR procedures as required by 10 CFR 35.615(f)(2) was identified.

**V. Exit Meeting**

A preliminary inspection debrief was conducted at the conclusion of the onsite inspection on April 25, 2006, and the final exit meeting was conducted by telephone on November 14, 2006. The licensee acknowledged the inspector's findings.

**PARTIAL LIST OF PERSONS CONTACTED**

Licensee:

- \*# Michael Tillman, UHC Chief Operating Officer
- \*# James W. Israel, UHC Radiation Safety Officer, Authorized Medical Physicist
- Michael Stewart, M.D., UHC Authorized User
- \* Rebecca Kozul, UHC Dosimetrist
- \* Linda Carte, RN, Director of Oncology
- \* Krieg Pruett, M.S., Physicist

NRC:

- \*# Randolph C. Ragland, Jr., NRC Region I, Senior Health Physicist
- \* Shirley Xu, NRC Region I, Health Physicist

State of West Virginia:

Dan Hill, Chief, Radiological Health Program

Others:

Subir Nag, M.D., NRC Medical Consultant  
Vicki V. Baker, M.D., Referring Physician, West Virginia University Health Care

- \* Present at the April 25, 2006, site inspection debrief
- # Participated in the November 14, 2006, final inspection debrief conducted by telephone