There are three major categories of events reported in this document: I. For All Licensees, II. For Commercial Nuclear Power Plant Licensees, and III. Events at Facilities Other Than Nuclear Power Plants and All Transportation Events. The full report, available on the NRC Web site, provides the specific criteria for determining when an event is an abnormal occurrence (AO) and discusses “Other Events of Interest” that do not meet the AO criteria but which the Commission has determined should be included in the report. The event identification number begins with “AS” for Agreement State AO events and “NRC” for NRC AO events.

I. For All Licensees

A. Human Exposure to Radiation From Licensed Material

During this reporting period, two events at Agreement State-licensed facilities were significant enough to be reported as abnormal occurrences (AOs). Although both of these events occurred at medical facilities, they both involved unintended exposures to individuals who were not the patient. Therefore, these events belong under the criteria I.A. “For All Licensees” category as opposed to the criteria III.C. “For Medical Licensees” category.

AS09–01 Human Exposure to Radiation at Chester County Hospital in West Chester, Pennsylvania

Date and Place—March 30, 2009, West Chester, Pennsylvania. Nature and Probable Consequences—Chester County Hospital (the licensee) reported that the administration of 925 MBq (25 mCi) of iodine-131 resulted in a dose to an embryo/fetus of 67 mSv (6.7 rem). Prior to the administration of iodine-131, a urinary pregnancy test was conducted by the licensee on September 21, 2009, and it yielded a negative result. On September 29, 2009, the patient notified the licensee that she took a home pregnancy test and it was positive. The patient’s pregnancy was confirmed by an independent clinic that administered a second pregnancy test.

The administration of iodine-131 was given to the patient at 2 to 3 weeks gestation (as determined by a consulting physician), a time period at which the thyroid had not developed. Shortly thereafter, the pregnancy ended. The licensee calculated a total whole body dose of 67 mSv (6.7 rem) to the embryo/fetus. There was no dose to the fetal thyroid since the pregnancy had ended before the thyroid had developed. Cause(s)—The cause of this event was the close proximity of conception, which resulted in a negative pregnancy test, to the administration of iodine-131.

Actions Taken To Prevent Recurrence: Licensee—The licensee is providing additional instructions to its staff to strongly emphasize to patients the risks associated with being pregnant prior to the administration of radiiodine treatments.

State—The State conducted a follow-up inspection and did not take any enforcement action regarding this event.

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AS09–02 Human Exposure to Radiation at Loyola University Medical Center in Maywood, Illinois

Date and Place—September 21, 2009, Maywood, Illinois. Nature and Probable Consequences—Loyola University Medical Center (the licensee) reported that the administration of 2,001.7 MBq (54.1 mCi) of iodine-131 resulted in a dose to an embryo/fetus of 119 mSv (11.9 rem). On March 30, 2009, the patient was given a pregnancy test and it yielded a negative result. Based on the negative pregnancy test, the licensee administered the iodine-131 to the patient.

On May 13, 2009, the patient informed the authorized user that she was pregnant. The administration of iodine-131 was given to the patient approximately 5 days post-conception, a time period at which the thyroid had not developed. The hospital discovered the pregnancy at 9.5 weeks gestation, at which time the thyroid had developed. Due to residual iodine-131 in the patient’s system, both a whole body and an organ dose exposure occurred. The hospital calculated a total whole body dose to the embryo/fetus of 119 mSv (11.9 rem) and a fetal thyroid dose of 9.7 mSv (0.97 rem). The hospital recommended that the patient consult with a genetic counselor for any potential health effects to the embryo/fetus. Cause(s)—The cause of this event was the close proximity of conception, which resulted in a negative pregnancy test, to the administration of iodine-131.

Actions Taken To Prevent Recurrence: Licensee—The licensee reviewed its established patient selection criteria, screening methods, and testing protocols for any procedural changes. A more sensitive pregnancy test for women capable of bearing children will now be conducted no more than a few days prior to the dose administration.

State—After consulting an expert, the State determined that the administration occurred before the development of the thyroid. The State also performed independent calculations that verified the estimate of the fetal dose by the
II. Commercial Nuclear Power Plant Licensees

During this reporting period, no events at commercial nuclear power plants in the United States were significant enough to be reported as AOs.

III. Events at Facilities Other Than Nuclear Power Plants and All Transportation Events

C. Medical Licensees

During this reporting period, three events at NRC-licensed or regulated facilities and four events at Agreement State-licensed facilities were significant enough to be reported as AOs.

AS09–03 Medical Event at St. Vincent’s Medical Center Inc., in Jacksonville, Florida

Date and Place—September 10–17, 2008, Jacksonville, Florida.

Nature and Probable Consequences—St. Vincent’s Medical Center Inc. (the licensee) reported that a medical event occurred associated with a high dose-rate (HDR) mammosite treatment for breast cancer containing 199.8 GBq (5.4 Ci) of iridium-192. A patient was prescribed to receive 34 Gy (3,400 rad) to the right breast but received 34 Gy (3,400 rad) to the skin of the left breast.

On October 16, 2008, the patient notified her physician of erythema on her left breast. During a records review, the medical physicist determined that an error in programming the catheter length in the HDR device caused the source to stop 10 cm short of the intended tumor site in the right breast. Due to this programming error, the dose intended for the right breast was delivered to the skin of the left breast. The authorized user concluded that no chronic health effect to the patient is expected.

Cause(s)—The medical event was caused by human error in failing to verify that the correct catheter length was entered into the treatment planning system.

Actions Taken To Prevent Recurrence: Licensee—The licensee committed to taking several corrective actions as a result of the medical event that include (1) utilizing a catheter length worksheet to determine and verify the mammosite catheter length, (2) documenting the mammosite catheter length by two individuals—one physician and either a dosimetrist, physicist, or radiation therapist—during simulation treatment set-up, (3) providing procedures for the medical physicist and authorized user on documenting the catheter length on the catheter worksheet during the review of the treatment control unit and treatment plan, and (4) conducting a second measurement of the catheter length to verify that the length agrees with the data in the treatment control unit.

State—The Florida Bureau of Radiation Control conducted an investigation and reviewed the licensee’s corrective actions and found the corrective actions to be adequate.

AS09–04 Medical Event at Presbyterian Hospital of Dallas in Dallas, Texas

Date and Place—December 2, 2008, Dallas, Texas.

Nature and Probable Consequences—Presbyterian Hospital of Dallas (the licensee) reported that a medical event occurred associated with its gamma stereotactic radiosurgery unit (gamma knife) containing 125.8 TBq (3,400 Ci) of cobalt-60. A patient being treated for trigeminal neuralgia was prescribed to receive 80 Gy (8,000 rad) to the fifth intracranial nerve but received 14.95 Gy (1,495 rad) to the seventh intracranial nerve. The patient and the referring physician were informed of this event.

An error in entry of information into the treatment planning system caused the wrong nerve to receive treatment. The error was identified by the neurosurgeon 9 minutes into the 45-minute treatment. The licensee concluded that no significant adverse health effect to the patient is expected.

Cause(s)—The medical event was caused by the misidentification of the anatomical target site listed on the written directive.

Actions Taken To Prevent Recurrence: Licensee—The licensee modified its written procedure to include verification of the target site, by the neuroradiologist, for each treatment. In addition, an updated written directive will document the new procedure to ensure that the correct treatment site is targeted and treated in each procedure.

State—The State will conduct a review of at least 20 percent of the past treatment cases to ensure that this error had not previously occurred.
receive a total dose of 144 Gy (14,400 rad) to the prostate using 64 iodine-125 seeds as permanent implants. Instead, the patient received an approximate dose of 76 Gy (7,600 rad) to the urethra and bulb of the penis (unintended sites). The patient and the referring physician were informed of this event.

According to the licensee, an interpretation of the ultrasound image of the patient’s prostate resulted in 30 of the 64 seeds delivered to the prostate while the other 34 seeds were delivered outside the prostate. Due to the patient’s prostate being smaller than normal, the prostate received 68 Gy (6,800 rad) of the prescribed dose and the urethra and bulb of the penis (unintended sites) received approximately 76 Gy (7,600 rad). Prior to the seeds being implanted, the urologist and radiation oncologist should have consulted on the ultrasound image of the patient’s prostate to determine the correct seed placement. The licensee concluded that no significant adverse health effect on the patient is expected.

Cause(s)—The cause of the medical event was the misinterpretation of the correct size of the patient’s small prostate gland by ultrasound.

Actions Taken To Prevent Recurrence: Licensee—Corrective actions taken by the licensee included instituting a new policy requiring agreement by both the urologist and radiation oncologist on seed placement for all prostate glands receiving the prescribed dose and the urethra and bulb of the penis (unintended sites). The patient returned for a second treatment to compensate for the original underdosing to the prostate.

Cause(s)—The cause of the medical event was human error in failing to check the collimator size prior to patient treatment.

Actions Taken To Prevent Recurrence: Licensee—Corrective actions taken by the licensee included (1) sending a notice to all authorized users, neurosurgeons, and medical physicists reiterating that they should each independently check the collimator size prior to patient treatment and (2) revising procedures to have a second independent verification of all treatment parameters, including the collimator size, by a treatment team member.

NRC—NRC conducted an onsite inspection and hired a medical consultant to review the event. The conclusions from the onsite inspection and medical consultant’s review are ongoing.

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NRC09–03 Medical Event at the Veterans Affairs San Diego Health Care System in San Diego, California

Date and Place—September 21, 2009, San Diego, California.

Nature and Probable Consequences—The Department of Veterans Affairs (the licensee), National Health Physics Program (NHPP) reported that a medical event occurred at the Veterans Affairs (VA) San Diego Health Care System associated with a therapeutic dosage of iodine-131 for the treatment of metastatic thyroid cancer. A patient was prescribed to receive 6.9 GBq (187 mCi) of iodine-131 to the metastatic sites around the body but received 6.1 GBq (166 mCi) to the stomach (wrong
treatment site). The patient and the referring physician were informed of this event.

On September 21, 2009, a dosage of 6.9 GBq (186 mCi) of iodine-131 was administered to the patient through an existing feeding tube. Daily radiation measurements indicated small decreases in radiation readings that were consistent with the physical decay of iodine-131, but not consistent with the biological elimination of iodine-131. On September 25, 2009, the feeding tube was replaced and a subsequent investigation revealed that the majority of the dosage, 6.1 GBq (166 mCi), was administered to the wrong orifice of the feeding tube. As a result, the dosage remained in the balloon of the feeding tube and irradiated the patient’s stomach, resulting in an approximate dose of 16 Gy to 19 Gy (1,600 rad to 1,900 rad) to the stomach.

Cause(s)—Three root causes were identified for this medical event: (1) inadequate training of staff, (2) inadequate procedures, and (3) an inadequate procedure on the verification that administrations involving feeding tubes were being administered in accordance with a written directive.

Actions Taken To Prevent Recurrence:

Licensee—Corrective actions taken by the licensee included (1) immediate suspension of any further gastric tube administrations until the direct cause of the medical event was identified, (2) suspension of one individual’s participation in administrations requiring a written directive, (3) informal training of the nuclear medicine technologists by the Radiation Safety Officer, and (4) development of draft written policies and procedures on the administration of iodine-131 through a gastric tube.

NRC—The NRC Region III Office conducted a reactive inspection on November 3, 2009, and also contracted a medical consultant to review this event. Based on the results of the inspection, five apparent violations of NRC’s regulations were identified. Enforcement action is pending and the medical consultant’s review is on-going.

Dated at Rockville, Maryland, this 12th day of July 2010.

For the U.S. Nuclear Regulatory Commission.

Annette L. Vietti-Cook,  
Secretary of the Commission.

PEACE CORPS

Proposed Collection Renewal; Correction

ACTION: 60-day notice and request for comments; correction.

SUMMARY: The Peace Corps published a document in the Federal Register of June 28, 2010, [FR Doc. 2010–15584, pages 36721–36722], concerning a proposal to renew three currently approved collections of information: 1. World Wise Schools Conference Online Registration Form (OMB Control No. 0420–0514); Speakers Match: Online Request for a Speaker Form (OMB Control No. 0420–0539); and Correspondence Match Educator Online Enrollment Form: Educator Sign Up Form (OMB Control No. 0420–0540). The document contained an incorrect OMB Control Number for the World Wise Schools Conference—Online Registration Form. The correct information should read: 1. Title: World Wise Schools Conference—Online Registration Form (OMB Control Number: 0420–0541). The remaining two information collections are correct as listed. The dates for comments has been extended because of the correction made to the notice.

DATES: Comments must be submitted on or before September 14, 2010.

ADDRESSES: Comments should be addressed to Marjorie Anctil, Director of World Wise Schools, Peace Corps, 1111 20th Street, NW., Washington, DC 20526. Marjorie Anctil can be contacted by telephone at 202–692–1461 or e-mail at manctil@peacecorps.gov. E-mail comments must be made in text and not in attachments.

FOR FURTHER INFORMATION CONTACT: Marjorie Anctil, at Peace Corps address above.

SUPPLEMENTARY INFORMATION: Proposal to renew the following currently approved collections of information:

1. Title: World Wise Schools Conference—Online Registration Form.  
OMB Control Number: 0420–0541.  
Respondents: Educators and employees of governmental and nongovernmental organizations interested in promoting global education in the classroom.

Estimated annual number of respondents: 300.

Estimated average time to respond: 10 minutes.

Frequency of response: Annually.

Estimated total annual burden hours: 50 hours.

General description of collection: The information collected is used to officially register attendees to the annual World Wise Schools Conference. The information is used as a record of attendance.

2. Title: Speakers Match: Online Request for a Speaker Form.  
OMB Control Number: 0420–0539.  
Type of Review: Regular—extension, without change, currently approved collection.

Respondents: Educators interested in promoting global education in the classroom.

Estimated annual number of responses: 300.

Estimated average time to respond: 10 minutes.

Frequency of response: Annually.

Estimated annual burden hours: 50 hours.

General description of collection: The information collected is used to make suitable matches between the educators and returned Peace Corps Volunteers for the Speakers Match program.

3. Title: Correspondence Match Educator Online Enrollment Form: Educator Sign Up Form.  
OMB Control Number: 0420–0540.  
Respondents: Educators interested in promoting global education in the classroom.

Estimated annual number of responses: 10,000.

Estimated average time to respond: 10 minutes.

Frequency of response: Annually.

Estimated annual burden hours: 1667 hours.

General description of collection: The information collected is used to make suitable matches between the educators and currently serving Peace Corps Volunteers.

Request for Comment: Peace Corps invites comments on whether the proposed collections of information are necessary for proper performance of the functions of the Peace Corps and the Paul D. Coverdell World Wise Schools, including whether the information will have practical use; the accuracy of the agency’s estimate of the burden of the proposed collection of information, including the validity of the information to be collected; and, ways to minimize the burden of the collection of information on those who are to respond, including through the use of automated collection techniques, when appropriate, and other forms of information technology.

This notice is issued in Washington, DC on July 9, 2010.

Earl W. Yates,  
Associate Director for Management.