

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL SAFETY AND HEALTH
RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT
MONTHLY REPORT**

DECEMBER 1, 2009 THROUGH DECEMBER 31, 2009

SECTION 1 OFFICE OF THE ASSISTANT DIRECTOR

SECTION 11 BUREAU OF RADIOLOGICAL HEALTH

SECTION 111 BUREAU OF ENVIRONMENTAL RADIATION

SECTION 1V BUREAU OF NUCLEAR ENGINEERING

SECTION V BUREAU OF RELEASE PREVENTION

RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT

MONTHLY REPORT

DECEMBER 1, 2009 THROUGH DECEMBER 31, 2009

SECTION I - OFFICE OF THE ASSISTANT DIRECTOR

Highlights of the Monthly Report

1. Radioactive Materials Program (RMP) Radiation Incidents

On December 23, 2009 the Pennsylvania Department of Environmental Protection informed the RMP that a vacuum truck owned and operated by an environmental firm in Edison, New Jersey is possibly contaminated with a radioactive substance used in a well drilling operation in Pennsylvania. Readings were in the microrem range. The truck was returned to Edison and is isolated and secured pending survey and disposition. On December 28, 2009 a member of the RMP arrived at the environmental firm in Edison and surveyed the truck in question. The highest reading obtained was approximately 0.5 mR/hour at the lowest most forward point of the tank. The truck will remain secured in Edison pending disposition.

2. Bureau of Nuclear Engineering (BNE) Radiological Environmental Monitoring Program

The BNE conducts a comprehensive Radiological Environmental Monitoring Program (REMP) in the environs surrounding New Jersey's four nuclear generating stations. The program collected 83 samples during the month of December 2009. The number and type of samples collected can be found in the BNE section of this report (pg. 25).

Sample results are entered into the BNE's database for tracking and trending of environmental results. Data obtained from these analyses are used to determine the effect, if any, of the operation of New Jersey's nuclear power plants on the environment and the public. BNE staff investigates any results exceeding state or federal discharge limits, or any anomalous data. The data are compared to on-site utility discharge point data.

BNE staff reviews all results to ensure that required levels of detection have been met and that state and federal radiological discharge limits have not be exceeded. The program includes written Annual Environmental Surveillance and Monitoring Report for the environs of the Oyster Creek and Salem/Hope Creek nuclear power plants. The report covers sampling results conducted during the calendar year. The Annual Environmental Surveillance and Monitoring Reports for 2008 (along with previous years) are found on the NJDEP website at <http://www.nj.gov/dep/rpp/bne/index.htm>

Questions regarding specific test results or the annual environmental report can be directed to Karen Tuccillo at: karen.tuccillo@dep.state.nj.us . Results of specific analyses can be obtained by request.

3. Bureau of Radiological Health (Bureau) Interdepartmental Cooperation

On December 10, 2009 Mr. Orlandi attended the Department of Health and Senior Services Interagency Council on Osteoporosis (ICO) meeting. The Bureau informed the ICO of an article published in the October 2009 Conference on Radiation Protection Control Program Directors' "NEWSBRIEF" regarding the benefits of precision assessment when performing bone densitometry studies using dual energy x-ray absorptometry (DEXA) units. The ICO complimented the Bureau for its continued support of precision assessment. DEXA testing is the primary method used by physicians to quantify bone density and to diagnose and treat patients with Osteoporosis (bone loss). Precision assessment helps eliminate false changes in bone density due to improper patient positioning. This results in a more accurate test which leads to better diagnosis and treatment. New Jersey was one of the first states to formally endorse the use of precision assessment in bone density studies.

As part of the ICO's year end review, the ICO thanked the Bureau for its input into the ICO's activities with the State Board of Medical Examiners to improve the qualifications of doctors who interpret DEXA procedures and to standardize interpretation reports.

Original signed by

Paul Baldauf, P.E.
Assistant Director

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL SAFETY AND HEALTH
RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT**

December 1 - 31, 2009

SECTION II – BUREAU OF RADIOLOGICAL HEALTH (BRH)

A. From the Chief’s Desk

Contact: Paul Orlando (609) 984-5809

During the month of December, bureau staff continued to work towards attainment of its FY-2010 work plan goals. A mid-year report on progress towards these goals will be presented in the January monthly report.

B. Registration and Support Section

Contact: Ann Martz Phone: (609) 984-5464

Machine Source Registration and Renewal Fees

The Bureau completed its annual renewal invoicing in October 2009 for the 2010 registration period. The Registration and Support Section continues to invoice registrants for new x-ray equipment as it is installed. These invoice amounts contain initial application fees and prorated registration fees that are invoiced daily. The table below represents monthly and year to date activities.

Machine Source Fees Invoiced and Collected for FY 2010					
Monthly Invoiced	Monthly Collected	Fiscal YTD Invoiced	Fiscal YTD Collected	Fiscal YTD Adjustments	Percent Collected
\$15,175.00	\$230,469.00	\$2,754,235.00	\$2,584,904.00	\$13,180.00	94%

Machine Source Unpaid Registration Fees

Facilities are provided a 60 day period from the invoice due date to pay their annual renewal registration fees. The Bureau is in the process of establishing a list of facilities that are delinquent in paying their 2010 renewal registration fees. Follow up with these facilities will occur in the upcoming weeks.

The Bureau continues to pursue facilities with past due registration fees, 2009 and earlier, utilizing various tools provided by law including the issuance of enforcement documents, assessment of late fees and penalties as appropriate. Below is a summary of these efforts:

77 facilities were issued first time enforcement actions for failure to pay their 2009 renewal fees. As of November 30, 2009 all have resolved their unpaid fees without further enforcement action.

Three facilities still owe 2008 registration fees. In addition, these facilities have been assessed late fees and penalties for failing to pay their assessments.

Six facilities still owe multiple years of registration and late fees. The Bureau continues to issue additional late fees and penalties through enforcement actions and are working with the Department's legal council to pursue additional avenues to collect these past due fees.

A total of \$2,852.00 in outstanding registration fees, \$4,200.00 late fees and \$12,700.00 in penalties remain outstanding for these delinquent registrants.

Technologist Certification License and Renewal Fees

The Technologist Certification Section continues to invoice individuals for initial licenses and examinations as they occur. The table below represents monthly and fiscal year-to-date activities.

Technologist Certification Examination & License Fees FY 2010 Invoiced & Collected				
Invoice Type	Monthly Invoiced	Monthly Collected	Fiscal YTD Invoiced	Fiscal YTD Collected
Examinations	0	0	\$800	\$800
Initial Licenses	\$4,340	\$4,500	\$45,320	\$43,900
Renewal Licenses	\$1,080	\$3,190	\$8,710	\$20,330
Totals	\$5,420	\$7,690	\$54,830	\$65,030

C. Machine Source Section

Contact: Ramona Chambus (609) 984-5370

The machine source section is charged with the responsibility of inspecting all x-ray machines used within the state. Below is a summary of the inspection initiatives that the section is engaged in.

Image Quality

When the Bureau conducts inspections to determine compliance with the quality assurance program, an image of our IQ phantom is taken and scored by the inspector. Six criteria are evaluated (background density, high contrast resolution, noise and artifacts, density uniformity, low contrast detail and low contrast resolution). Additionally our database calculates an overall image quality score.

A report is generated and sent to each facility at which an IQ film was done. This report identifies which category (excellent, good, fair or poor) each of the six tests and the overall score the IQ falls into. The report explains IQ and its determining factors. Facilities with poor IQ scores are asked to consult with their physicist and determine the cause of the poor IQ, make changes to improve IQ, and send a report of their findings and corrective actions to the BRH within thirty days.

In December 2009, IQ evaluations were performed on one hundred and ninety-two (192) x-ray units with the following results:

- 95 units (49%) had excellent image quality scores.
- 74 units (39%) had good image quality scores.
- 20 units (10%) had fair image quality scores.
- 3 units (2%) had poor image quality scores.

Entrance Skin Exposures

Entrance skin exposure (ESE) is a measurement of the radiation exposure a patient receives from a single x-ray at skin surface. There are three main factors that affect ESE: technique factors, film-screen speed, and film processing. A key element of our strategy is to ensure that facilities are aware of their ESE and to encourage them to take steps to reduce their ESE if it is high.

When the Bureau conducts inspections to determine compliance with New Jersey Administrative Code 7:28, a measurement of entrance skin exposure (ESE) is taken. A report is generated and sent to each facility at which an ESE measurement was taken. This report gives the ESE and identifies which category the ESE falls into. The report explains ESE and its determining factors. Facilities with extremely high ESE readings are asked to consult with their physicist and determine the cause of the extremely high ESE, make changes to bring the ESE down, and send a report of their findings and corrective actions to the BRH within thirty days.

Medical Facilities

The Bureau collected baseline ESE data on three major examinations (chest, lumbo-sacral spine and foot) for ten months before the start of the quality assurance program requirements in 2001. The Bureau divided ESE exposures into four categories: low, average, high and extremely high. When this baseline data was examined it showed that overall twenty-five percent of New Jersey facilities had extremely high ESE. These represent unnecessary radiation exposure to patients. The Bureau has documented a steady decrease in these unnecessary radiation exposures since the implementation of its quality assurance program.

In December 2009, ESE measurements were calculated on eighty-nine x-ray units that performed lumbo-sacral spine x-rays. Three units (3.4%) had extremely high ESE measurements.

In December 2009, ESE measurements were calculated on thirty-eight x-ray units that performed chest x-rays. No units (0%) had extremely high ESE measurements.

In December 2009, ESE measurements were calculated on sixty-six x-ray units that performed foot x-rays. No units (0%) had an extremely high ESE measurement.

Dental Facilities

The Bureau collected baseline ESE data on dental x-ray machines for two years and after evaluating this data, established the ranges for four ESE categories similar to those in the medical quality assurance program (low, average, high and extremely high). When this data was

examined it revealed that overall 19.6 percent of New Jersey dental machines had high or extremely high ESE, which represents unnecessary radiation exposure to patients.

Dental facilities use three speeds of film: D, E, F or *Insight*. (*Insight* is the branded name of Kodak's F speed film). Dental facilities also use two types of digital imaging: direct radiography (DR) or computed radiology (CR); also referred to as phosphor storage plates (PSP). Slower speed films require higher patient radiation dose to produce an acceptable image. D is the slowest speed and requires sixty percent more radiation than F to produce an acceptable image. Direct radiography requires the least radiation.

An inexpensive way to reduce radiation is to change to a faster speed film. Our research determined that F speed film costs only five cents more per film than D speed. No changes in equipment or processing are necessary to use a faster speed film. While direct radiography systems have the lowest average ESE, they do require the purchase of new more costly equipment.

When the Bureau conducts inspections to determine compliance with New Jersey Administrative Code 7:28, a measurement of entrance skin exposure (ESE) is taken. A report is generated and sent to each facility at which an ESE measurement was taken. This report gives the ESE and identifies which category the ESE falls into. The report explains ESE and its determining factors. Facilities with extremely high ESE readings are asked to consult with their film representative or physicist and determine the cause of the extremely high ESE, make changes to bring the ESE down, and send a report of their findings and corrective actions to the BRH within thirty days. The table below depicts the current ESE ranges for the various imaging systems used.

ESE Ranges Measured in Milliroentgens (mR)				
Film Speed	Low	Average	High	Extremely High
D	0 to 100	101 to 285	286 to 350	≥351
E	0 to 75	76 to 190	191 to 245	≥246
E/F,F,Insight	0 to 50	51 to 150	151 to 205	≥206
Image Receptor				
CR (PSP)	0 to 35	36 to 170	171 to 215	≥216
Digital	0 to 20	21 to 110	111 to 160	≥161

In December 2009, ESE measurements were calculated on twenty-three dental x-ray units that used D speed film. No units had an extremely high ESE measurement.

In December 2009, no ESE measurements were calculated on dental x-ray units that used E speed film.

In December 2009, ESE measurements were calculated on two dental x-ray units that use F or *Insight* speed film. No units had an extremely high ESE measurement.

In December 2009, ESE measurements were calculated on twenty-seven dental x-ray units that used DR digital imaging. One unit (3.7%) had an extremely high ESE measurement.

In December 2009, ESE measurements were calculated on six dental x-ray units that used CR digital imaging. No units had an extremely high ESE measurement.

Inspection Activity and Items of Non-compliance

A three-page Inspector Activity Report of inspections performed, enforcement documents issued and a description of the non-compliances found follows this report.

D. Technologist Certification Section

Contact: Al Orlandi (609) 984-5890

December 2009 Activities

The Section continued to process license and examination applications investigate complaints and respond to inquiries during the month of December. The Section has begun and completed several initiatives identified in the Bureau's FY 2010 work plan. Statistical information is attached at the end of the Bureau report. In addition to its regular business functions, the following highlights are reported:

Medical Physicist and Medical Physicist Assistant Certification Renewal:

In October 2009, all 236 medical physicists and medical physicist assistants certified under N.J.A.C. 7:28-22 entitled "Quality Assurance Programs for Medical Diagnostic X-Ray Installations" were invoiced for the renewal of their certifications that will expire on December 31, 2009. The total assessment is \$5,900. As of December 31, 2009, 211 certifications (90%) have been renewed.

Annual School Fee:

In October 2009, all 56 Radiologic Technology Board of Examiners approved schools of radiologic technology were invoiced for their 2010 annual fee. The total assessment is \$34,000. Payment of the annual fee is required by January 4, 2010. As of December 31, 2009, 33 schools (60%) have paid their annual fees certifications have been renewed.

School of Radiologic Technology Inspections:

A school of radiologic technology that is approved by the Radiologic Technology Board of Examiners (Board) must comply with the Board's approved curriculum and N.J.A.C. 7:28-19. On December 8, 2009, the school of dental radiologic technology sponsored by Ocean County Vocational Technical School was inspected. Additionally, on December 11, 2009, the Bureau conducted its fourth inspection of UMDNJ's two schools of dental radiologic technology. UMDNJ did provide all student records necessary for the Bureau to complete its inspections. The Bureau will soon issue its findings to each school.

Complaint Investigations:

On December 16, 2009, two inspections involving the use of fluoroscopic x-ray equipment by unlicensed individuals were conducted. Inspection findings are under review.

Suspension of a Dental Radiologic Technology License:

On December 15, 2009, the Department was notified by the probation officer of a licensee currently on probation by the Board that the person was not compliant with her probation. On December 16, 2009, the Department issued an Administrative Order and Notice of License Suspension to the person for failing to comply with the Board sanctions issued to the licensee in November. This Order was received on December 28, 2009 and the person returned her suspended license to the Bureau on December 31, 2009.

Interdepartmental Cooperation:

On December 4, 2009, the Bureau met with the Department of Treasury's Dishonored Checks Unit and the Division of Revenue to discuss and develop a process for handling dishonored payments made by licensed radiologic technologists or examinees. On December 14, 2009, a process was approved and implemented.

On December 10, 2009, Mr. Orlandi attended the Department of Health and Senior Services' (DHSS) Interagency Council on Osteoporosis (ICO) meeting. The Bureau informed the ICO of an article published in the October 2009 Conference on Radiation Protection Control Program Directors' NEWSBRIEF regarding the benefits of precision assessment when performing bone densitometry studies using dual energy x-ray absorptiometry (DEXA) units. The ICO complimented the Bureau for its continued support of precision assessment. DEXA testing is the primary method used by physicians to quantify bone density and to diagnosis and treat patients with Osteoporosis (bone loss). Precision assessment helps eliminate false changes in bone density due to improper patient positioning. This results in a more accurate test which leads to better diagnosis and treatment. New Jersey was one of the first states to formally endorse the use of precision assessment in bone density studies.

As part of the ICO's year end review, the ICO thanked the Bureau for its input into the ICO's activities with State Board of Medical Examiners to improve the qualifications of doctors who interpret DEXA procedures and to standardize interpretation reports.

E. Mammography Section

Contact: Ramona Chambus (609) 984-5356

Stereotactic Facilities Inspected

The Mammography Section inspected three facilities with stereotactic/needle localization breast biopsy units. There were no Administrative Orders and Notices of Prosecution issued. A total of thirteen of the 60 planned stereotactic facility inspections have been performed since July 1, 2009.

Mammography Facilities Inspected

Mammography facilities are inspected by the Bureau's certified MQSA inspectors under the Mammography Quality Standards Act (MQSA). Any areas of non-compliance discovered during MQSA facility inspections are classified into one of three categories: Level 1, Level 2 and Level 3. Level 1 and Repeat Level 2 non-compliances are the most serious and the facility may receive a warning letter from the FDA. The facility has fifteen days from the date of the inspection to respond to the FDA detailing the corrective actions they have taken. Level 2 and Repeat Level 3 non-compliances are considered serious. The facility must respond with their corrective actions within thirty days. Level 3 non-compliances are considered less serious and the facility is expected to correct the non-compliance in a timely manner. Inspectors will review facility corrective actions at the next annual inspection.

The Mammography Section inspected seventeen facilities in December. There were no facilities found to have non-compliance issues. A total of 73 of the 231 facilities scheduled to be inspected under the current FDA MQSA contract have been inspected to date. The contract will expire on July 31, 2010.

Facility Non-compliances Discovered

There were no **Level 1** non-compliances.

There were no **Level 2** non-compliances.

There were no **Level 3** non-compliances.

A table of inspection details can be found at the end of the BRH report.

F. Enforcement Services Section

Contact: Jennifer Daino (609) 984-5359

The Enforcement Services Section is attempting to contact facilities to collect outstanding penalties. To date the section has mailed out 20 letters to technologists with outstanding penalties and 4 technologists have paid the penalty. The remaining 16 technologists have been referred to collections. In addition, the section sent out duplicate invoices in March 2009 to all facilities with outstanding penalties and 12 facilities have paid their penalty. Starting in August 2009, the section began calling facilities with outstanding penalties and 8 facilities have paid their penalty. The remaining 30 facilities have been referred to collections. Below are charts to show enforcement activity for the month.

BUREAU OF RADIOLOGICAL HEALTH ENFORCEMENT ACTIONS

FOR DECEMBER 2009

Total Admin. Orders Issued	Admin. Orders Effective	Admin. Orders Pending	Admin. Orders Closed	Total Notices of Prosecution Issued	Effective Notices of Prosecution	Pending Notices of Prosecution	Closed Notice of Prosecution	Total Formal Enforcement Documents
54	27	25	2	36	14	20	2	90

PENALTY AMOUNT ASSESSED AND COLLECTED FOR ACTIONS ISSUED

Total Amount Assessed in December 2009	Total Amount Assessed for FY 10 to Date	Total Amount Collected for FY 10 Assessments	Total Amount Collected in FY 10 for Previous FY Assessments	Total Amount Collected in FY 10
\$ 25,300.00	\$ 77,750.00	\$ 39,150.00	\$ 29,950.00	\$ 69,100.00

BUREAU OF ENVIRONMENTAL RADIATION ENFORCEMENT

ACTIONS FOR DECEMBER 2009

Total Admin. Orders Issued	Admin. Orders Effective	Admin. Orders Pending	Total Notices of Prosecution Issued	Effective Notices of Prosecution	Pending Notices of Prosecution	Total Formal Enforcement Documents
2	0	2	2	0	2	4

PENALTY AMOUNT ASSESSED AND COLLECTED FOR ACTIONS ISSUED

Total Amount Assessed in December 2009	Total Amount Assessed for FY 10 to Date	Total Amount Collected for FY 10 Assessments	Total Amount Collected in FY 10 for Previous FY Assessments	Total Amount Collected in FY 10
\$ 6,600.00	\$ 16,400.00	\$ 4,700.00	\$ 1,200.00	\$ 5,900.00

Inspector: ALL

Number of Inspections Performed

<u>Inspection Type</u>	<u>Inspection Description</u>	<u>Facilities Inspected</u>	<u>Machines Inspected</u>	<u>Machines Audited</u>	<u>Machines Uninspected</u>
1	ROUTINE INSPECTION	30	91		
4	NEXT	1	1		73
11	INVESTIGATION	1			
12	STEREOTACTIC INSPECTION	3	3		
15	QA INSPECTION ROUTINE LEVEL 1	196	198	149	12
17	QA VIOLATION INSPECTION ON SITE	3	1	2	
Total On-Site Inspections:		234	294	151	85
6	OFFICE VIOLATION RESPONSE REVIEW	10		24	
7	OFFICE RADIATION SAFETY SURVEY INSPEC	11		13	
18	OFFICE QA VIOLATION RESPONSE REVIEW	18		21	
23	OFFICE TECH CERT INSPECTION	1		1	
24	OFFICE INITIATED ENFORCEMENT ACTION	1		5	
Total Office Inspections:		41		64	0

Number of Enforcement Documents Issued

NOV	28
AO	37
NOP	26
Amount of Penalties	\$25,400

Inspector: ALL

Violation Code	Glossary Information	Description Non-Compliance	Number of Violations	
			By DN	By Cod
Violations Cited Non-QA				
ACT				
ACT-003	26:2D-35	X-rayed humans without a valid NJ license	1	1
Cabinet				
C-002	17.7(e)	Requirements for surveys not met:	2	2
C-006	17.7(c)	Requirements for film badges not met.	1	1
Dental				
D-002	16.8(a)1	Survey of environs not available or not performed	7	7
D-015	16.3(a)6	Insufficient filtration. Measured HVL ____ mm Al at ____ kVp	1	1
FEE				
FEE-001	3.12(g)	Failed to pay registration fees within 60 days of invoice date.	5	5
Radiographic				
R-020	15.3(d)2	Center aligned within 2% of SID	1	1
R-021	15.3(d)3	SID indicated to within 2% (fixed SID has permanent marking)	1	1
R-326	15.10(b)1	Initial survey completed and submitted within 60 days	3	3
R-327	15.10(b)2	Survey completed and submitted within 60 days	2	2
Registration				
REG1	3.1 (a) and (b)	Failed to register the ionizing radiation producing machine within 30 days of acquisition.	6	6
Total Violations Cited Non-QA			30	
Violations Cited QA				
Quality Assurance				
QA-010	22.5(a)1	QA manual not complete.	4	4
QA-011	22.5(a)2	QC tests from Table 1 (Radiographic) not performed at the required intervals.	42	42
QA-012	22.5(a)3	Medical Physicist's QC Survey not performed at required interval or all tests not performed.	18	18
QA-023	22.5(e)	Failed to immediately initiate steps to bring processing into compliance.	4	4
QA-032	22.5(j)	Did not keep test record for at least one year.	2	2
QA-037	22.6(a)2	QC tests from Table 2 (Fluoroscopic) not performed at the required intervals.	13	13
QA-038	22.6(a)3	No Med Phys QC Survey for Fluoro	1	1

Inspector: ALL

Violation Code	Glossary Information	Description Non-Compliance	Number of Violations	
			By DN	By Cod
Violations Cited QA				
Quality Assurance				
QA-039	22.6(a)4	No Corrective Action Plan for Fluoro	1	1
QA-050	22.6(f)	Failed to immediately initiate steps to bring fluoroscopic equipment into	2	2
QA-063	22.7(a)2	QC tests from Table 3 (CT) not performed at the required intervals.	1	1
Total Violations Cited QA			88	
Total Violations			118	

TECHNOLOGIST CERTIFICATION SECTION

MONTH OF DECEMBER

LICENSE CATEGORY	D I A G N O S T I C R A D	N U C M E D I C I N E	R A D T H E R A P Y	D E N T A L R A D	C H E S T R A D	P O D I A T R I C R A D	O R T H O P E D I C R A D	U R O L O G I C R A D
Initial Licenses Issued	28	2	1	41	-	-	-	-
Licenses Renewed	8	1	1	20	1	-	-	-
Total Licensed	9,012	1,177	787	11,108	155	42	6	-
Exams Scheduled	-	-	-	-	-	-	-	-
Investigations Conducted	2	-	-	1	-	-	-	-
Licenses Verified	194	-	-	316	-	-	-	-
Expired Licenses	-	-	-	-	-	-	-	-
Unlicensed	1	-	-	-	-	-	-	-
NOP's Issued	1	-	-	-	-	-	-	-
Penalty (\$)	\$300	-	-	-	-	-	-	-
Licenses Sanctioned	-	-	-	1	-	-	-	-
Approved Educational Programs	16	3	4	34	1	0	1	0
Program Applications Evaluated	-	-	-	-	-	-	-	-
Program On-site Evaluations	-	-	-	2	-	-	-	-
Total Programs Evaluated	-	-	-	2	-	-	-	-
Clinical Applications Approved	-	-	-	116	-	-	-	-

avo-6299 monthly status

**Bureau of Radiological Health
Mammography Section
December 2009**

Type of Facility	INDUSTRY	PHYSICIAN	HOSPITAL	GOVERNMENT	TOTAL MONTH	FY TO DATE	TOTAL DUE THIS FY
MQSA							
Facilities Inspected	0	11	4	0	15	73	231
Machines Inspected	0	17	4	0	21	94	
FDA Violations Level 1	0	0	0	0	0	0	
FDA Violations Level 2	0	0	0	0	0	7	
FDA Violations Level 3	0	0	0	0	0	1	
Registrations	0	4	0	0	4	9	
Stored	0	4	0	0	4	17	
Canceled	0	0	0	0	0	0	
Stereotactic							
Facilities Inspected	0	0	3	0	3	13	60
Machines Inspected	0	0	3	0	3	13	
Notice of Violation	0	0	0	0	0	0	
Administrative Order	0	0	0	0	0	0	
Notice of Prosecution	0	0	0	0	0	0	
Registrations	0	0	0	0	0	1	
Stored	0	0	0	0	0	1	
Canceled	0	0	0	0	0	0	

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RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT
BUREAU OF ENVIRONMENTAL RADIATION
DECEMBER 1, 2009 THROUGH DECEMBER 31, 2009

SECTION III - BUREAU OF ENVIRONMENTAL RADIATION

A. RADIOACTIVE MATERIALS PROGRAM

Program-wide Report

Staff generated and mailed 229 bills.

Diffuse NARM, Source Material, General Licensing & Decommissioning

Diffuse NARM

Staff continues to enter Community Water System and Non-Transient, Non-Community Water System licenses into NJEMS.

Contact: Karen Flanigan (609) 292-1938

Staff amended four water treatment licenses.

Contact: Karen Flanigan (609) 292-1938

Staff sent applications to two contaminated sites that contain diffuse NARM in concentrations above the exempt limits.

Contact: Jenny Goodman (609) 984-5498

Source Material

Staff continue to assist the Deputy Attorneys General in responding to litigation.

Contact: Jenny Goodman (609) 984-5498

General Licensing

Staff prepared and mailed out the General License Registration Certifications. Recipients are required to check their inventory and certify that they still possess the materials. After the certification is received, an invoice will be generated and mailed.

Contact: Ed Truskowski (609) 984-5542
Karen Flannigan (609) 292-1938

Decommissioning

Staff is in the process of terminating 3 licenses.

Staff reviewed various remediation or final status survey reports for Picatinny Arsenal, BOMARC Missile site, Heritage Minerals, Sayreville Seaport Authority, Middlesex Municipal Landfill, New Jersey American Water, and Alcatel-Lucent.

Contact: Jenny Goodman (609) 984-5498

Medical, Industrial, and Reciprocity

During the month of December, 2009 the Radioactive Materials Program (RMP) responded to seven (7) radiation incidents:

1. On December 1, 2009, Trenton Dispatch informed the Radioactive Materials Program (RMP) that a load of municipal solid waste (MSW) from a hospital in Staten Island, New York had set off the radiation alarm at an incinerator in Rahway. The load was rejected and returned to the hospital. New York City radiation control officials were notified.
2. At 7:50 p.m. on December 7, 2009, Trenton Dispatch informed a member of the RMP that a load of MSW from the New York City Department of Sanitation (NYCDOS) had set off a radiation alarm at an incinerator in Newark. The load was rejected and returned to the NYCDOS. New York City radiation control officials were notified.
3. On December 8, 2009, Trenton Dispatch informed a member of the RMP that a load of MSW from a waste hauler in Jersey City set off a radiation alarm at an incinerator in Newark. The load was rejected and returned to the haulers facility in Jersey City. It was secured for a few days to allow for decay-in-storage. The load was then returned to the incinerator where it was processed without incident.
4. At 7:30 a.m. on December 11, 2009, Trenton Dispatch informed a member of the RMP that a load of MSW from a waste hauler in Staten Island, New York had set off a radiation alarm at an incinerator in Rahway. The load was rejected and returned to the hauler in Staten Island. New York City radiation control officials were notified.
5. On December 15, 2009, Trenton Dispatch informed the RMP that a load of waste from a hospital in Newark set off a radiation alarm at an incinerator in Newark. The load was rejected and returned to the hospital. It was secured for a few days to allow for decay-in-storage. The load was then returned to the incinerator where it was processed without incident.
6. On December 16, 2009, Trenton Dispatch informed the RMP that a load of MSW from a waste hauler in Jersey City had set off the radiation alarm at an incinerator

in Newark. The load originated from a hospital in Belleville. The load was rejected and taken to the hauler's facility in Jersey City. It was secured there for a few days to allow for decay-in-storage. The load was then returned to the incinerator where it was processed without incident.

7. On December 23, 2009, the Pennsylvania Department of Environmental Protection informed the RMP that a vacuum truck owned and operated by an environmental firm in Edison is possibly contaminated with a radioactive substance used in a well drilling operation in Pennsylvania. Readings were in the microrem range. The truck has returned to Edison and is isolated and secured pending survey and disposition. On December 28, 2009, a member of the RMP arrived at the environmental firm in Edison and surveyed the truck in question. The highest reading obtained was approximately 0.5 mR/hour at the lowest, most forward point of the tank. The truck will remain secured in Edison pending disposition.

Contact: William Csaszar (609) 984-5555

Police Pager Incidents

On December 30, 2009, Trenton Dispatch informed the RMP that during a roadside vehicle inspection, a State Trooper discovered that the vehicle was transporting packages containing radioactive material. Since all the paperwork was in order (aside from a minor violation of U.S. DOT regulations), the vehicle was allowed to proceed. No further assistance was required.

Contact: William Csaszar (609) 984-5555

B. RADON SECTION

Outreach

Updates were submitted for inclusion to the Radon Program website. They include updates to the Radon Action Partnership Awards, Radon Community Action Partnership, Radon Leaders Saving Lives web portal, and National Radon Action Month Packet and order form.

National Radon Action Month (NRAM)- Requests for outreach materials continue to be received and processed. The NRAM Proclamation was sent out for Governor Corzine's signature. A Postmaster e-mail to be distributed to DEP employees the second week of January was sent to the Postmaster.

Radon Poster Contest- Awards for first place, third place, school with the most entries, and honorable mentions (4) were presented to Glen Landing Middle School in Blackwood, New Jersey. The presentation was conducted during the Gloucester County Board of Education meeting held on December 14, 2009.

Reimbursement was received from Kansas State University for various costs associated with the Radon Poster Contest including drawstring backpacks which were distributed to all participants along with informational radon health cards.

Radon Awareness Program (RAP)- The Bloomfield Health Department and the Passaic County Health Department have shown an interest in the program. Informational packets were sent out.

Paperwork from the Essex County Cancer Coalition for reimbursement for the purchase of 275 test kits was received and submitted for payment.

Newborn Pilot Program- Paperwork from the Essex County Cancer Coalition for reimbursement for the purchase of 100 test kits was received and submitted for payment.

An article has been written pertaining to radon in schools for the NJEA February Newsletter and is currently under in-house review.

Recipients of the Radon Action Partnership Awards which included health departments, municipalities, city programs, and organizations were notified and certificates were issued.

Contact: Linda Z. Jordan (609) 984-5434

Program Administration Fee Billing Report

On December 11, 2009, the Program Administration Fee (PAF) invoices for the semiannual period from January 1, 2009 to June 30, 2009 were sent to Treasury for mailing. The total amount billed was \$81,198.00. Thus far, we received payments of \$2,304.00 leaving a balance due of \$78,894.00.

Contact: Herb Roy (609) 984-5433

Measurement and Mitigation Radon Certifications

A total of 45 radon professional applications were approved. They consisted of two measurement specialists, one mitigation specialist and 42 measurement technicians. A total of three professionals were moved from provisional to full certification status. Business application approvals consisted of one measurement business.

Contact: Anita Kopera (609) 984-5543

Post-mitigation radon testing

Free post-mitigation tests are offered to any homeowner that has a mitigation system installed. We will send test devices to verify the post-mitigation radon concentration.

During this month, there were two electret devices mailed to one homeowner. The devices have not yet been returned.

Contact: Charles Renaud (609) 984-5423

C. NONIONIZING RADIATION SECTION

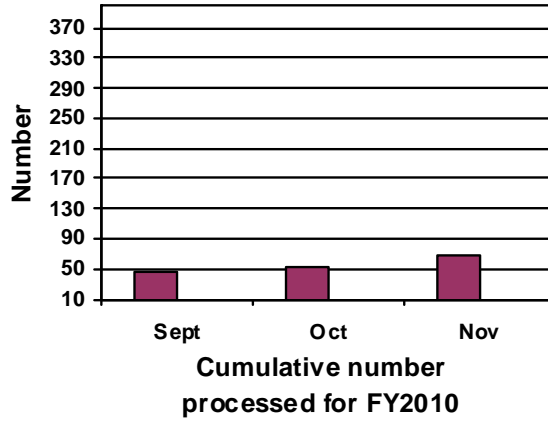
Radiofrequency and Microwave Heaters, Sealers and Industrial Ovens

One source was registered this month.

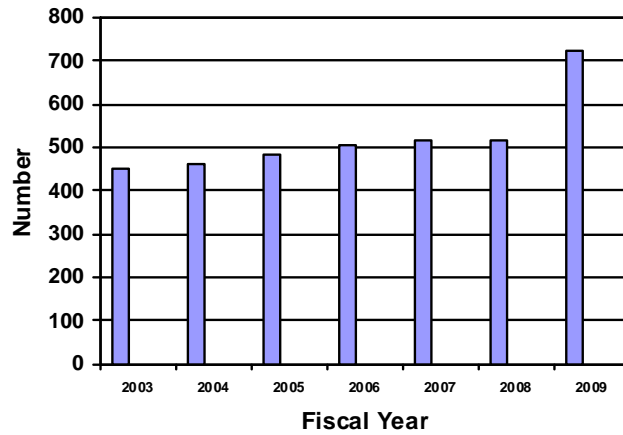
Contact: Deborah Riggs Wenke (609) 984-5521

**SUMMARY OF THE ROUTINE ACTIVITIES OF THE
RADIOACTIVE MATERIALS SECTION**

Licensing Actions Performed



**Annual Report of Licenses
Maintained**



**DIVISION OF ENVIRONMENTAL SAFETY AND HEALTH
RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT
MONTHLY REPORT**

**DECEMBER 01, 2009 TO DECEMBER 31, 2009
IV - BUREAU OF NUCLEAR ENGINEERING**

SIGNIFICANT ACCOMPLISHMENTS/ISSUES

None.

OTHER INFORMATION

Nuclear Power Plant Operation

Oyster Creek

The plant operated at approximately 100% power for the month.
Contact: Rich Pinney (609) 984-7558

Hope Creek

Hope Creek operated at approximately 100% throughout the month except for a short time period on December 5. On December 5, power was reduced to 76% in order to perform main turbine valve testing. At the completion of the testing, power was returned to 100%.
Contact: Jerry Humphreys (609) 984-7469

Salem Unit 1

Salem Unit 1 ran at essentially full power for the entire month.
Contact: Elliot Rosenfeld (609) 984-7548

Salem Unit 2

Salem Unit 2 ran at essentially full power for the entire month.
Contact: Elliot Rosenfeld (609) 984-7548

Salem and Hope Creek Site Activities

Two BNE engineers participated in a meeting to review proposed revisions to the Salem Emergency Action Levels (EALs) on December 1 and 2, 2009 at the Salem/Hope Creek Emergency Operations Facility (EOF). These revisions are being made to bring the existing EALs into conformance with the latest industry guidance. A similar review meeting was held for the Hope Creek EALs in October 2009. The final product will be submitted to the NRC by PSEG in early 2010.

On December 3, one BNE engineer met with the Hope Creek Plant Manager to discuss the operations of the plant during October and November.

A BNE engineer met with the Salem Plant Manager on December 15. Among the topics discussed were the results of the recently completed Salem 2 refueling outage, recently announced organizational changes and recent plant challenges.

Contact: Elliot Rosenfeld (609) 984-7548 or Jerry Humphreys (609) 984-7469

Radioactive Materials Shipment Notifications

The Bureau of Nuclear Engineering is responsible for tracking certain radioactive materials that are transported in New Jersey. Advance notification for these radioactive materials are in three categories: 1) Spent Fuel and Nuclear Waste; 2) Highway Route Control Quantity Shipments; and 3) Radionuclides of Concern. Each category has to meet certain packaging and notification requirements established by the federal government. Below is a table representing the number of shipments completed in December 2009.

Spent Fuel and Nuclear Waste	Highway Route Control Quantity Shipments	Radionuclides of Concern
0	0	1

Contact: Rich Pinney (609) 984-7558

Oyster Creek Quarterly Exercise

On December 8th, Department of Environmental Protection nuclear emergency response personnel participated with the State Police Office of Emergency Management (SPOEM), and Exelon in a quarterly exercise at the Oyster Creek Nuclear Generating Station. The Emergency Operations Facility (EOF) and Joint Information Center (JIC) co-located in Toms River, and the Emergency Operations Center (EOC), located at State Police Regional Operations and Intelligence Center (ROIC), were activated during the exercise. Engineering assessment, dose assessment, and protective action recommendations was conducted at the EOF. BNE and State Police staff discussed protective action recommendations and made final protective action decisions for the public at the EOC. BNE, State Police and Exelon staff presented incident updates and disseminated information to the public at the JIC.

Contact: Nick DePierro (609) 984-7442

Emergency Action Level (EAL) Training

On December 2nd, Exelon hosted its annual Emergency Action Level Training at the Emergency Operations Facility in Toms River. Exelon's Oyster Creek emergency preparedness staff conducted the annual training for the BNE's State's Radiological Assessment Officers, State Police Office of Emergency Management staff, and Ocean County's Training Coordinator. Exelon staff presented their Event Classification Guides including changes and revisions since last year's annual training. Event Classification Guides are used to identify the level of an emergency (Emergency Action Level) during a nuclear event, and are practiced during quarterly and annual exercises. Each licensee is required to provide state and county emergency response organizations with annual Emergency Action Level training in accordance with their emergency response plans.

Contact: Nick DePierro (609) 984-7442

Facility Inspections

Berkeley Forward Command Post	12/30/09
Toms River Joint Information Center	12/15/09
Toms River Emergency Operations Facility	12/15/09
Emergency Operations Center	12/18/09
Salem Emergency Operations Facility	12/08/09
Woodstown Forward Command Post	12/07/09
Woodstown Emergency News Center	12/08/09
Contact: Nick DePierro (609) 984-7442	

Radiological Environmental Monitoring Program

The BNE conducts a comprehensive Radiological Environmental Monitoring Program (REMP) in the environs surrounding New Jersey's four nuclear generating stations. The program collected 83 samples during the month of December 2009. The number and type of samples collected are given in the table below.

Sample results are entered into the BNE's database for tracking and trending of environmental results. Data obtained from these analyses are used to determine the effect, if any, of the operation of New Jersey's nuclear power plants on the environment and the public. BNE staff investigates any results exceeding and state or federal discharge limits or any anomalous data. The data are compared to on-site utility discharge point data.

BNE staff reviews all results to ensure that required levels of detection have been met and that state and federal radiological discharge limits have not been exceeded. The program includes a written Annual Environmental Surveillance and Monitoring Report for the environs of the Oyster Creek and Salem / Hope Creek nuclear power plants. The report covers sampling results conducted during the calendar year. The Annual Environmental Surveillance and Monitoring Reports for 2008 (along with previous years) are found on the NJDEP website at <http://www.nj.gov/dep/rpp/bne/index.htm>.

Questions regarding specific test results or the annual environmental report can be directed to Karen Tuccillo. Results of specific analyses can be obtained by request.

COUNT OF SAMPLES COLLECTED IN DECEMBER 2009

<u>SAMPLE MEDIUM</u>	<u>NUMBER OF SAMPLES</u>
AIR FILTER	38
AIR CHARCOAL	38
MILK	3
SURFACE WATER	4
TOTAL SAMPLES	83

Contact: Karen Tuccillo (609) 984-7443

NRC Occupational Radiation Safety Inspection at the Oyster Creek Generating Station

A Nuclear Regulatory Commission (NRC) inspection of Occupational Radiation Safety at the Oyster Creek Nuclear Generating Station was conducted from November 30 through December 4, 2009. The inspection team was composed of one NRC inspector and one representative of the New Jersey Bureau of Nuclear Engineering (BNE). The objective of the inspection was to gather information to determine whether a licensee is meeting the objective of this NRC cornerstone, which is to ensure adequate protection of worker health and safety from exposure to radiation from radioactive material during routine nuclear reactor operation. The inspection was performed in accordance with NRC Inspection Procedure (IP) 71121.03, "Occupational Radiation Safety". Inspection objectives include the determination of (1) the accuracy and operability of radiation monitoring instruments that are used for the protection of occupational workers; and (2) the adequacy of the program to provide self-contained breathing apparatus (SCBA) for personnel entering and working in areas of unknown radiological hazards. The team also closed out various items from the Radiological Effluent Technical Specifications (RETS) and Radiological Environmental Monitoring Program (REMP) inspections that took place in 2009. Further details on all inspections can be found on the USNRC website at, <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure>. Final NRC inspection reports are available at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/listofrpts_body.html.

Contact: Paul E. Schwartz (609) 984-7539

NRC Inspection of Radioactive Material Processing and Transportation Program at Salem and Hope Creek Nuclear Generating Stations

A NRC inspection of the Radioactive Material Processing and Transportation Program at Salem and Hope Creek Nuclear Generating Stations was conducted from December 7 - 17, 2009. The inspection team was composed of one NRC inspector and one representative of the New Jersey Bureau of Nuclear Engineering (BNE). The inspection was performed in accordance with NRC Inspection Procedure 71122, "Public Radiation Safety", Attachment 71122-02 – "Radioactive Material Processing and Transportation". The two-week inspection was a biennial common site inspection. The inspection scope was comprised of document reviews, personnel interviews and plant walk-downs to verify that radioactive waste processing and transport activities are performed in accordance with NRC requirements. The NRC inspector's limited physical mobility because of a temporary medical condition resulted in the plant walk-down portions of the inspection being postponed until a future inspection. The results of this biennial inspection will be documented in Salem and Hope Creek NRC Integrated Inspection Reports 2009-005.

Contact: Tom Kolesnik (609) 984-7575

Emergency Planning

Staff members participated in Oyster Creek Emergency Action Level (EAL) training conducted by Exelon on December 2, 2009 and in an Oyster Creek Quarterly Emergency Planning Drill on December 8, 2009

Contact: Karen Tuccillo (609) 984-7443

Update on Salem-1 Tritium Leak Remediation

During the month of December 2009, 16 samples were collected and shipped to the BNE's contract laboratory for radiological analysis.

Contacts: Tom Kolesnik (609) 984-7575 or Compton Alleyne (609) 984-7455

Update on Oyster Creek Tritium Split Sample Results

During the month of December 2009, 17 samples from onsite groundwater monitoring wells and 48 surface water samples were shipped to the BNE's contract laboratory, GPL, for radiological analysis. Results of the analyses will be posted on the following website, along with additional information regarding the tritium leak at the Oyster Creek nuclear power plant:

<http://www.nj.gov/dep/rpp/bne/FinalOCH3.pdf>.

Contacts: Compton Alleyne (609) 984-7455 or Paul E. Schwartz (609) 984-7539

Effluent Release Data

The BNE monitors the effluents released from all four (4) nuclear generating stations each month. The reported effluents include gaseous, total iodine, total particulate and tritium released to the atmosphere and water.

The Oyster Creek nuclear power plant in Forked River, NJ does not routinely release activity in liquids to the environment. In the event of an unplanned release, the resulting activity will be included in the licensee's Annual Effluent Release Report, available through the USNRC website at, <http://www.nrc.gov>, or the county public library system. Releases to the atmosphere are from the 112-meter stack or various monitored building vents. At the Hope Creek and Salem nuclear power plants, releases to the air and water are monitored each month and compared to historic releases. Releases to the atmosphere are from various monitored building vents.

Effluent data for the Salem and Hope Creek nuclear power plants for November 2009 are included below. Liquid tritium effluent results for Salem Units 1 and 2 during the months of February and September of 2009 required an adjustment. The changes were due to a licensee calculation issue. In February 2009, Salem Unit 1 liquid tritium effluent released to the environment was 1.74E+01 curies and for Salem Unit 2 liquid tritium effluent released was 8.80E+00 curies. In September 2009, Salem Unit 1 liquid tritium effluent released to the environment was 1.15E+02 curies and for Salem Unit 2 effluent released was 7.05E+01 curies. In all cases, releases to the environment remained below effluent limits mandated by the USNRC.

Effluent data for the Oyster Creek nuclear power plant for August 2009 through October 2009 are included below. Effluent data for November 2009 and December 2009 were not available at the drafting of this monthly report but will be included in the January 2010 report that will be available in February 2010.

**PSEG Nuclear
Radioactive Effluent Releases
Nuclear Environmental Engineering Section
For the Period of 11-01-09 to 11-30-09**

**Hope Creek
Gaseous
Effluents**

<u>Effluent</u>		
Fission Gases	3.38E+00	Ci
Iodines	3.05E-04	Ci
Particulates	4.49E-07	Ci
Tritium	0.00E+00	Ci

**Hope Creek
Liquid Effluents**

<u>Effluent</u>		
Fission Products	1.37E-04	Ci
Tritium	2.75E-01	Ci

**Salem Unit 1
Gaseous
Effluent**

<u>Effluent</u>		
Fission Gases	2.13E-02	Ci
Iodines	0.00E+00	Ci
Particulates	0.00E+00	Ci
Tritium	1.79E+01	Ci

**Salem Unit 1
Liquid Effluents**

<u>Effluent</u>		
Fission Products	3.34E-03	Ci
Tritium	5.37E+01	Ci

**Salem Unit 2
Gaseous
Effluent**

<u>Effluent</u>		
Fission Gases	1.81E-02	Ci
Iodines	5.78E-07	Ci
Particulates	0.00E+00	Ci
Tritium	8.18E+00	Ci

**Salem Unit 2
Liquid Effluents**

<u>Effluent</u>		
Fission Products	2.11E-03	Ci
Tritium	2.86E+01	Ci

**Exelon Nuclear
Radioactive Effluent Releases
Nuclear Environmental Engineering Section
For the Period of 08-01-09 to 08-31-09**

**Oyster Creek
Gaseous Effluent
Elevated Releases**

**Oyster Creek
Gaseous Effluent
Ground Releases**

<u>Effluent</u>			<u>Effluent</u>		
Fission Gases	2.50E+00	Ci	Fission Gases	0.00E+00	Ci
Iodines	0.00E+00	Ci	Iodines	0.00E+00	Ci
Particulates	0.00E+00	Ci	Particulates	0.00E+00	Ci
Tritium	8.22E-02	Ci	Tritium	1.10E-01	Ci

**Exelon Nuclear
Radioactive Effluent Releases
Nuclear Environmental Engineering Section
For the Period of 09-01-09 to 09-30-09**

**Oyster Creek
Gaseous Effluent
Elevated Releases**

**Oyster Creek
Gaseous Effluent
Ground Releases**

<u>Effluent</u>			<u>Effluent</u>		
Fission Gases	1.67E-01	Ci	Fission Gases	0.00E+00	Ci
Iodines	0.00E+00	Ci	Iodines	0.00E+00	Ci
Particulates	0.00E+00	Ci	Particulates	0.00E+00	Ci
Tritium	7.95E-02	Ci	Tritium	1.08E-01	Ci

**Exelon Nuclear
Radioactive Effluent Releases
Nuclear Environmental Engineering Section
For the Period of 10-01-09 to 10-31-09**

<u>Oyster Creek Gaseous Effluent Elevated Releases</u>			<u>Oyster Creek Gaseous Effluent Ground Releases</u>		
<u>Effluent</u>			<u>Effluent</u>		
Fission Gases	1.57E+00	Ci	Fission Gases	0.00E+00	Ci
Iodines	4.72E-06	Ci	Iodines	0.00E+00	Ci
Particulates	0.00E+00	Ci	Particulates	0.00E+00	Ci
Tritium	8.22E-02	Ci	Tritium	8.65E-02	Ci

Ci = curies of activity

Contact: Paul E. Schwartz (609) 984-7539

Continuous Radiological Environmental Surveillance Telemetry System

Thirty-two Continuous Radiological Environmental Surveillance Telemetry (CREST) sites are located in the environs of Oyster Creek, Salem I, II, and Hope Creek nuclear generating stations. CREST is a part of the Air Pollution/Radiation Data Acquisition and Early Warning System, a remote data acquisition system whose central computer is located in Trenton, New Jersey. Sites are accessed via dedicated phone lines or cellular communication and polled for radiological and meteorological data every minute.

The Air Pollution/Radiation Data Acquisition and Early Warning System is equipped with a threshold alarm of twenty-five (25) microRoentgens per hour. The system notifies staff via text messages and email alerts if the threshold is exceeded, providing 24-hour coverage of potential radiological abnormalities surrounding each nuclear facility. There were no alarms in December.

Contact: Ann Pfaff (609) 984-7451

The following tables include the average ambient radiation levels at each site for the month of December:

Artificial Island CREST System Ambient Radiation Levels December 2009 Derived From One Minute Averages UNITS = mR/Hr				
AI1	AI2	AI3	AI4	AI5
.0066	.0066	.0068	.0072	.0066
AI6	AI7	AI8	AI9	AI10
****	.0061	.0057	.0075	****

Oyster Creek CREST System Ambient Radiation Levels December 2009 Derived From One Minute Averages UNITS = mR/Hr			
OC1	OC2	OC3	OC4
.0070	.0058	.0059	.0054
OC5	OC6	OC7	OC8
.0059	.0058	.0053	****
OC9	OC10	OC11	OC12
.0061	.0057	.0057	.0057
OC13	OC14	OC15	OC16
.0054	.0056	.0075	.0062

**** indicates no data

Contact: Ann Pfaff (609) 984-7451

CREST Status

Verizon completed repair work on CREST sites AI6 and AI10 in December. Three monitoring stations around Oyster Creek were upgraded to wireless data transmission; one still requires firewall configuration by the Office of Information Technology to allow communication with the central system.

Contact: Ann Pfaff (609) 984-7451

Air Pollution/Radiation Data Acquisition and Early Warning System

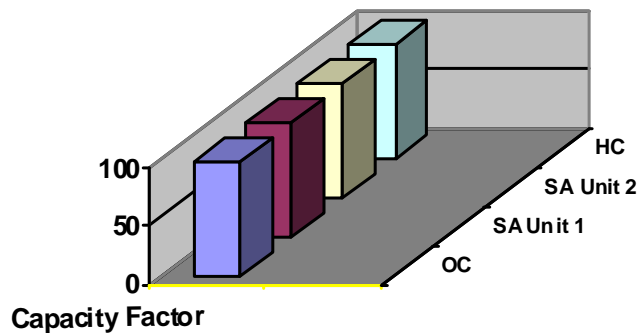
A conference call was held in December to discuss and come to agreement on the central system's failover design. Staff from DEP's Office of Information Resource Management, Bureau of Air Monitoring and Bureau of Nuclear Engineering teleconferenced with Envitech staff to delineate the current failover paths, the potential failure scenarios, identifiable risks and a proposed final design. Consensus was reached on the how failover of the five servers at two physical locations would transpire. Implementation of automatic failover of the database awaits Oracle's evaluation of infrastructure vulnerabilities.

The contract with Envitech was scheduled to conclude on December 31, 2009. Because full implementation and testing of system failover, as well as several report structures and back-up polling has not been completed, a no-cost contract extension will be requested of Department of Treasury to ensure all contract obligations have been met by the vendor.

Contact: Ann Pfaff (609) 984-7451

BUREAU OF NUCLEAR ENGINEERING

Plant Operating Performance - December 2009



STATISTICAL INFORMATION

EMERGENCY AND NON-EMERGENCY EVENT NOTIFICATIONS FOR DECEMBER 2009

Emergency events (EEs) at nuclear power plants are classified, in increasing order of severity, as an Unusual Event (UE), Alert, Site Area Emergency (SAE), and General Emergency (GE). Non-emergency events (NEEs) are less serious events that require notification of the NRC within one to four hours. The nuclear power plants operating in New Jersey also notify the BNE of NEEs. The BNE analyzes the NEEs as part of its surveillance of nuclear power plant operation.

	DEC 2009		JAN - DEC 2009		JAN - DEC 2008	
	EE	NEE	EE	NEE	EE	NEE
OYSTER CREEK	0	0	2	5	0	6
SALEM 1	0	0	0	2	0	4
SALEM 2	0	0	0	0	0	3
SALEM SITE	0	0	0	1	0	0
HOPE CREEK	0	2	0	11	1	6

SECTION IV

<u>Priority / Demand</u>	<u>DPCC Output</u>	This Month	FY 2010 to date
<u>1. Plan Submission, Renewals and Amendments</u>	Plans Received	0	1
	Plans Initially Approved	0	0
	Plans Denied	0	0
	Plan Renewals Received	3	27
	Plan Renewals Approved	10	40
	Plan Renewals Denied	2	8
	Plan Amendments Received	4	34
	Plan Amendments Approved	6	38
<u>2. Inspections</u>	Annual Audits	21	91
	Technical Review Inspections	9	62
	Compliance Inspections	1	10
	Follow-up Site Visits	2	8
	Follow-up Document Reviews	5	19
	Incident/Complaint Investigations	0	0
<u>3. Information Requests</u>	OPRA	7	96
<u>4. Discharge Confirmation Reports</u>	Submitted	7	76
	Assigned	0	0
	Accepted	0	0
<u>5. Enforcement Actions</u>	AO/NOCAPA	9	30
	Notice of Violation	7	32
	Settlements	1	4
<u>6. Penalties</u>	New Penalty Assessments (Total Dollar Amount)	\$94,950	\$181,948
	Payments Received	\$17,250	\$78,100
	Cancelled	\$0	\$70,250
	Suspended	n.a.	\$236,998
<u>7. Respond to referrals, etc.</u>	Requests received	0	0
	Responses issued	0	0

Additional Activities

Training

All members of the program completed on-line health and safety training.

Section Chief Beth Reddy attended the final MindLeaders Leadership seminar, set up to supplement the online training pilot for the Department in which she is participating.

Other Items

A get-together was held with the people from the central field office who have moved into 4 Station Plaza to give everyone a chance to introduce themselves.

Task Progress

The current backlog of plan renewals past their renewal date is 44, with 6 plans currently denied. This is a decrease of three backlogged and one denied plan from last month.

Priority / Demand	Output	This Month	2nd Qtr. To date	FY 2010 to date
1. <u>Assistance to Office of Homeland Security & Preparedness</u>	Inspections/Reviews	0	0	2
	Support (data, training, etc.)	0	0	0
2. <u>Rulemaking</u>	Hold quarterly work group meeting	0	0	0
3. Registrant Fee Collection	Bills issued	0	0	0
	Bills collected	0	0	1
	Fee report published & mailed	-	-	-
4. <u>New Covered Process Application Reviews</u>	<i>Applications received</i>	0	0	2
	Applications reviewed & decision letters issued	0	0	3
5. Procedures & Guidance Docs, Maintenance & Development	New & revised technical guidance docs. prepared & distributed	0	1	1
	New & revised SOPs prepared	5	6	6
	Form letters revised (update NJEMS template documents)	0	0	0
6. <u>Review of submitted IST review reports</u>	<i>New & revised IST review reports received</i>	5	20	27
	IST Reports reviewed and letters issued	12	35	62
7. <u>Risk Management Program audits/inspections</u>	1.a. Unannounced standard inspections of existing RMPs (Program 3 processes) completed	6	14	29
	1.b. Audits of newly registered, new covered processes, or existing facilities completed (scheduled)	0	0	2
	1.c. Unannounced Brief Compliance Inspections	0	0	0
	2. Preliminary determination letters (DCA or DCAA) sent	0	0	1
	3. Signed CA, CAA or RMP-OK letters issued (as of 8/14/08 no longer issuing RMP-OK letters)	0/0/0	0/0/2	0/1/2
8. Enforcement Actions and Case Management	Issue enforcement actions in accordance with NJEMS procedures (issue PEAs)	0	2	16
	Provide case management to settle disputed violations (issue NEAs)	2	4	5
	Issue NOV's for minor violations	0	0	0
9. Risk Management Plan Reviews	RMPlan diskettes received and loaded to FACITS (new, updates, corrections)	5	12	25
	RMPlans reviewed and determination letters sent.	3	11	47
10. Annual /	Reminder letters issued	12	31	47

Priority / Demand	Output	This Month	2nd Qtr. To date	FY 2010 to date
Triennial Reports Reviews	Reports received	3	23	31
	Reports reviewed and letters or enforcement actions issued	6	22	36

11. Compliance Inspections (not RMP audits)	1.b. Non-registered sites inspected for TCPA compliance	2	4	31
	2. Follow-up inspections for compliance with signed CAs, CAAs, and enforcement actions	1	5	13
	3. Accident investigations	0	0	1
	4. Multimedia/GreenStart referrals	0	0	0
12. Communications and Outreach	Prepare responses to OPRA requests & management referrals	7	10	13
	Conduct presentations, workshops, etc.	0	2	3

Penalties and Fees:

TCPA Penalties	This Month		FY 2010 to date		Notes
Assessed	\$18,500.00	2	\$294,135.34	21	
Collected	\$8,200.00	2	\$64,500.00	9	
Pending Payment	\$18,500.00	2	\$65,567.50	8	(1 from FY09; 5 from before FY09 at collections)
Open (suspended)	\$2,000.00	1	\$361,235.34	20	PEAs with hearing req. (10-FY10, 6-FY09, 2-FY08 & 1-FY06)
Cancelled	\$0.00	0	\$47,500.00	3	PEAs rescinded or superceded by NEAs

FY2010 TCPA Ann. Fees	Amount	Registrants	Notes
Total Billed	\$0.00	0	
Collected to date	\$15,157.74	1+	(*One full and one partial fee from FY2009 billing)
Percentage	0%	0%	(doesn't include the ones from FY2009)

IST Reports Review Status

1.		Facilities subject.	91	
2.		BPS facilities.	47	
	A.	BPS facilities subject before 5/08 IST rule.	44	
	B.	New BPS facilities subject after IST rule.	3	
3.	A.	In Compliance letters sent to 2.A. BPS facilities.	41	Complete
	B.	In Compliance letters sent to 2.B. BPS facilities.	1	
	C.	Deregistered facilities sent review discontinued letter.	3	
4.	A.	BPS facilities (2.A.) issued letter requesting	0	

		additional information.		
	B.	BPS facilities (2.B.) issued letter requesting additional information.	2	Spectra and Welco
5.		All other facilities (non-BPS).	44	
6.		Non-BPS reports (initial submittal) issued in compliance letter.	4	Hess, McLane, State Metal, and ConocoPhillips
7.		Non-BPS reports found deficient, information request letters issued.	40	
8.	A.	Non-BPS reports submitted in response to information request (from 7.).	38	
	B.	Non-BPS reports submitted in response to information request, in compliance letter issued.	22	
	C.	Non-BPS reports submitted in response to information request, 2 nd additional information request letter issued.	4	
9.	A.	BPS reports submitted in response to information request (from 4.B.)	2	
	B.	BPS reports submitted in response to information request, in compliance letter issued	1	Spectra
	C.	BPS reports submitted in response to information request, deficient letter issued	0	

Plan for completing reviews:

1. Ammonia refrigeration facilities (14, 13 existing and 1 new facility (Al & Johns recently received): Issue initial review letters by 9/30/09 - Complete (13 IC letters, 1 Inf. Req. Letter)
2. Refineries (4): Issue initial review letters by 10/30/09 – Complete 9/28/09 (2 IC letters, 2 Inf. Req. letters)
3. Other (miscellaneous sector) facilities (7): Issue letter by 10/30/09 – Complete 10/7/09 (1 IC letter, 6 Inf. Req. letters)
4. Review and issue determination letters for water and power generation reports submitted to respond to information requests by 11/30/09. Completed 12/10/09.

Activities:

- 1) December Inspections and Audits:
 - a) Approved Risk Management Program Standard Compliance Inspections (SCI): Crest Foam Industries, Kuehne Chemical Company, Falcon Safety Products, New Jersey American Water, Church & Dwight, and Bridor USA.
 - b) Spot check compliance inspections: Scientific Design Company and Potters Industries.
 - c) Deregistration verification inspection: Middlesex Water Company.
 - d) SVA inspections: (none).
- 2) Five TCPA SOPs- were issued in December:
 - a) E11, TCPA Audit/Inspection Procedure, 12/3/09;

- b) E13, TCPA Audit/Inspection Evaluation Procedure, 12/3/09;
 - c) E15, TCPA Screening BCI, 12/3/09;
 - d) E17, Transfer of Ownership, 12/15/09; and
 - e) E18, Incident Investigation, 12/3/09.
- 3) The mandated on-line Health & Safety training was completed by all staff. A discussion about it was held during the December bureau staff meeting. The TCPA section's completed tests are with Carl Ochs awaiting a response from DEP-OOHS as to whether or not we can grade them ourselves. If not, they will be sent to OOHS in January.