

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

MAY 1, 2009 THROUGH MAY 31, 2009

SECTION 1	OFFICE OF THE ASSISTANT DIRECTOR
SECTION 11	BUREAU OF RADIOLOGICAL HEALTH
SECTION 111	BUREAU OF ENVIRONMENTAL RADIATION
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**RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT
MONTHLY REPORT**

MAY 1, 2009 THROUGH MAY 31, 2009

SECTION I - OFFICE OF THE ASSISTANT DIRECTOR

Highlights of the Monthly Report

1. Bureau of Radiological Health (Bureau) Meets with New Jersey Dental Association (NJDA)

On May 18, 2009 the Bureau Chief and Machine Source Supervisor met with NJDA's Executive Director and General Counsel, Arthur Meisel, Esq. and Director of Dental Care Programs, Mary B. Moskal, to share the results of the Bureau's efforts to reduce patient radiation exposure from intra-oral dental x-ray examinations through its dental outreach initiative which was launched in May 2005. The outreach efforts have been successful in reducing patient radiation exposure from intra-oral dental examinations. Seventy-nine percent of facilities that previously had extremely high radiation intra-oral x-ray exposures reduced their levels eighteen percent or greater after receiving Bureau provided post-inspection reports identifying their extremely high exposures and providing specific information on how to reduce their patient radiation exposure.

This initiative and its success were achieved without proposing additional regulations and included the involvement of the NJDA at its onset. Before launching this initiative, the Bureau met with NJDA officials and shared with them the components and goals of the outreach initiative. The NJDA wrote to its members announcing the impending initiative and supported the initiatives goals. Additionally, the Bureau wrote to all registered dental facilities (approximately 5,000 facilities) announcing the initiative, its components and goals prior to its launch. The outreach initiative is comprised of a detailed post-inspection report that provides the radiation exposure level measured for each machine. The measured results are categorized as low, average, high or extremely high as compared to state and national data. The report includes a histogram that compares the facilities radiation level to that of all New Jersey facilities utilizing the same type imaging system. Those facilities with machines that measured high or extremely high radiation exposure are provided with information on how to reduce their radiation exposure levels.

2. Nuclear Regulatory Commission (NRC) Hosts Oyster Creek Public Information Session And Annual Assessment Meeting

On May 28, 2009 the NRC hosted their annual meeting to provide the results of their annual assessment of Exelon's performance related to Oyster Creek. The meeting was held at the Holiday Inn in Toms River.

Prior to the meeting, the NRC hosted a public information session from 6:00 to 7:00 PM. Approximately twenty NRC employees were on hand to informally provide information to the public on any topic.

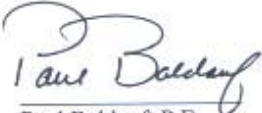
The NRC characterized Exelon's performance for 2008 as all "green" or within the regulatory response band. This means that the basic regulatory oversight program will be in place for 2009. Exelon took the opportunity to explain three recent shutdowns due to problems with a main transformer. They also explained the discovery of tritium in a concrete vault and their actions to find the source of the leak, stop the leak, monitor the ground water, and future plans such as running the pipe above ground or in concrete vaults.

At 8:00 PM, after a short break, the open session began where the public could ask questions of the NRC staff. This session was hosted by the NRC's Regional Administrator.

About twenty five members of the public attended. In attendance were representatives of two public officials, Congressman Adler and Assemblyman Van Pelt. One radio station and two newspapers were there.

Thirteen people asked questions or made statements. The session was recorded but will not be transcribed. Copies of the recording will be available to the public, but in limited numbers.

The meeting ended at 9:45 PM, the NRC remained to continue informal individual discussions.



Paul Baldauf, P.E.
Assistant Director

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

May 1 - 31, 2009

SECTION II – BUREAU OF RADIOLOGICAL HEALTH (BRH)

A. From the Chief's Desk

Contact: Paul Orlando (609) 984-5809

Bureau Holds Work Plan Retreat

Bureau supervisory staff met on May 7, 2009 to review its FY 2009 accomplishments and shortcomings and to begin planning the Bureau's direction for FY 2010 and beyond. The Bureau achieved many of its FY 2009 work plan goals, which will be detailed in the July 2009 monthly report. The Bureau anticipates completing its FY 2010 work plan document for senior management review in early July.

Bureau Meets with New Jersey Dental Association (NJDA)

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This initiative and its success were achieved without proposing additional regulations and included the involvement of the NJDA at its onset. Before launching this initiative, the Bureau met with NJDA officials and shared with them the components and goals of the outreach initiative. The NJDA wrote to its members announcing the impending initiative and supported the initiative's goals. Additionally, the Bureau wrote to all registered dental facilities (approximately 5,000 facilities) announcing the initiative, its components and goals prior to its launch. The outreach initiative is comprised of a detailed post-inspection report that provides the radiation exposure level measured for each machine. The measured results are categorized as low, average, high or extremely high as compared to state and national data. The report includes a histogram that compares the facilities radiation level to that of all New Jersey facilities utilizing the same type imaging system. Those facilities with machines that measured high or extremely high radiation exposure, are provided with information on how to reduce their radiation exposure levels.

B. Registration and Support Section

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

Machine Source Registration and Renewal Fees

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 which are invoiced daily. The table below represents monthly and year to date activities.

Machine Source Fees Invoiced and Collected for FY 2009					
Monthly Invoiced	Monthly Collected	Fiscal YTD Invoiced	Fiscal YTD Collected	Fiscal YTD Adjustments	Percent Collected
\$11,055	22,382	\$2,815,904	\$2,778,146	\$9,263	99%

Machine Source Unpaid Registration Fees

In April 2008, the Bureau established a list of facilities that have not paid their FY 2008 annual registration fees revealing 198 registrants who had not paid their annual registration renewal fees. In June 2008, 72 registrants still had not paid their annual fees, of which 7 were repeat non-payment offenders. As of May 31, 2009, six registrants still owe fees, late fees and penalties for non-payment of registrations.

In January 2009, the Bureau established a new list of 365 facilities that are now delinquent in paying \$132,428.00 in FY 2009 registration renewals. The Bureau is actively pursuing the collection of these past due fees. To date, 274 registrants (66%) have paid their registration fees. The remaining 91 registrants owe \$23,239.00 (17%) of the original \$132,428.00 in delinquent registration fees. The Bureau has collected \$109,189.00 (83%) in past due registration fees. In May 2009, the Bureau issued 77 Batch Enforcement Documents and 14 administrative orders including late fees. This group of 14 had batch enforcement actions against them in 2008. As of May 31, 2009, seventeen registrants have responded to the batch enforcement actions and one registrant responded to the administrative order by paying past due fees.

Technologist Certification License and Renewal Fees

In October 2008, the Registration and Support Section assisted the Technologist Certification Section in invoicing over 22,600 licensees their 2009-2010 license renewal. The Technologist Certification Section continues to invoice individuals for initial licenses and examinations as they occur. The table below represents monthly and year to date activities.

Invoice Type	Monthly Invoiced	Monthly Collected	Fiscal YTD Invoiced	Fiscal YTD Collected
Examinations	\$480	\$220	\$28,200	\$28,240
Initial Licenses	\$6,080	\$5,160	\$61,100	\$59,100
Renewal Licenses	\$1,680	\$6,585	\$1,988,190	\$1,751,140
		\$		
Totals	\$8,240	\$11,965	\$2,079,650	\$1,845,285

C. Machine Source Section

Contact: Ray Papalski (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

One goal of the Bureau's quality assurance program is to increase image quality (IQ) by fifteen percent by 2007. The Bureau has observed a greater than twenty percent increase in image quality scores since the inception of the quality assurance program and continues to monitor image quality scores as part of this program. 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 during the inspection. 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 May 2009, IQ evaluations were performed on ninety four x-ray units with the following results:

Fifty-six units (59.6%) had excellent image quality scores.

Thirty-seven units (39.4 %) had good image quality scores.

No units (0.0 %) had fair image quality scores.

One unit (1.1 %) had a poor image quality score.

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.

One goal of the Bureau's quality assurance program for medical facilities was to reduce entrance skin exposure (ESE) to patients from medical x-ray equipment by thirty-five percent by 2005. The Bureau met this goal in September 2004. We are continuing to monitor medical facilities' ESE to ensure these reductions remain in place and to encourage further improvements.

The Bureau did not set any goals for reduction of dental ESE because there is no quality assurance program required for dental facilities. However, we believe similar reductions in dental ESE are possible. The Bureau will track ESE averages and report on changes observed over time.

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 May 2009, ESE measurements were calculated on thirty-nine x-ray units that performed lumbo-sacral spine x-rays. Three units (7.7%) had extremely high ESE measurements.

In May 2009, ESE measurements were calculated on twenty-three x-ray units that performed chest x-rays. Two units (8.7%) had extremely high ESE measurements.

In May 2009, ESE measurements were calculated on thirty-four x-ray units that performed foot x-rays. No units 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) – 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.

Data collected between January 18, 2002 and June 30, 2005 shows the following:

Film Speed	Number of Measurements	Average ESE	Range
D	5586	232.6 mR	3 mR to 1557 mR
E	559	176.1 mR	12 mR to 666 mR
F & I	1352	145.6 mR	7 mR to 731 mR

Digital Imaging	Number of Measurements	Average ESE	Range
DR	1416	99.0 mR	4 mR to 610 mR
CR-PSP	71	159.8 mR	34 mR to 444 mR

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.

In May 2009, ESE measurements were calculated on one hundred and thirty-two dental x-ray units that used D speed film. No units had an extremely high ESE measurement.

In May 2009, two ESE measurements were calculated on any x-ray units that used E speed film. No units had an extremely high ESE measurement.

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

In May 2009, ESE measurements were calculated on sixty-seven dental x-ray units that used DR digital imaging. Six units (9.0%) had extremely high ESE measurements.

In May 2009, ESE measurements were calculated seven 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

The Section continued to process license and examination applications, investigate complaints and respond to inquiries during the month of May. The Section has begun and completed several initiatives identified in the Bureau's FY 2009 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:

Radiologic Technology Board of Examiners (Board):

The Board met on May 6, 2009. A full summary of the meeting is available upon request. The following are highlights of the major issues discussed at this meeting:

1. Accepted the Interim Accreditation Report submitted by the school of diagnostic radiologic technology sponsored by Brookdale Community College and voted to maintain the school's accreditation at eight years.
2. Voted to send the results of the Board's "Radiography Clinical Procedures Survey" and comments submitted by interested parties to the American Registry of Radiologic Technologists for consideration.
3. Discussed updates on 13 educational program issues.

Jersey Premier Institute for Medical and Dental Training (NJPIMDT) Inspection:

As a Radiologic Technology Board of Examiners (Board) approved school in dental radiologic technology, NJPIMDT must comply with the Board's approved curriculum and regulations relating to schools of dental radiologic technology. On May 11, 2009, Bureau staff conducted an inspection at the school. The Bureau will soon issue its report to the program.

Outreach

On May 28, 2009, William Klimik and Al Orlandi spoke on various Radiation Protection Program initiatives at an educational symposium at Brookdale Community College. Topics discussed included: (1) An summary of the Radiation Protection Programs and its missions; (2) A review of current and future licensure regulations, (3) Year 6 Entrance Skin Exposure and Image Quality results for medical radiographic procedures; (4) Computed Tomography and Dental Dose project results; (5) the National Council on Radiation Protection and Measurements (NCRP) Report 160 and other national activities, such as, the Alliance for Quality Medical Imaging and Radiation Therapy and the Alliance for Radiation Safety in Pediatric Imaging. Approximately 90 radiologic technologists, educators and students were in attendance. Additionally, the symposium was broadcasted via satellite to Rwanda, Africa to radiologic technologists, students, educators and physicians. A copy of the full presentation is available upon request.

E. Mammography Section

Contact: Ramona Chambus (609) 984-5356

Stereotactic Facilities Inspected

The Mammography Section inspected six facilities with stereotactic/needle localization breast biopsy units. There were no Administrative Orders and Notices of Prosecution issued. A total of fifty-two stereotactic facility inspections have been performed since July 1, 2008.

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 thirty-two facilities in May. Four facilities were found to have non-compliance issues which are summarized below. A total of 198 of the 239 facilities scheduled to be inspected under the current FDA MQSA contract have been inspected to date. The contract will expire on July 31, 2009.

Facility Non-compliances Discovered

There was one facility with **Level 1** non-compliances which consisted of the following:

Phantom QC records were missing for at least 4 weeks.

There were three facilities with **Level 2** non-compliances which consisted of the following:

Two out of five random reports reviewed did not contain an acceptable assessment category.

The FFDM manufacturer QC (excluding monitor & printer QC) procedures were not followed.

Failed to produce documents verifying that the interpreting physician met the requirement of having 8 hours of training in the new mammography modality.
Failed to produce documents verifying that the interpreting physician met the continuing education requirement of have taught or completed at least 15 category 1 continuing medical education units in mammography in 36 months.

There was one facility with **Level 3** non-compliances which consisted of the following:

The compression device QC tests were not done at the required frequency and corrective action was not documented at least once.

The repeat analysis QC tests were not done at the required frequency.

The screen-film contact QC tests were not performed at the required frequency.

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

**BUREAU OF RADIOLOGICAL HEALTH ENFORCEMENT ACTIONS FOR
 MAY 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
22	6	16	19	6	13	41

**PENALTY AMOUNT ASSESSED AND COLLECTED FOR ACTIONS
 ISSUED**

Total Amount Assessed in May 2009	Total Amount Assessed for the Year to Date	Total Amount Collected Year to Date
\$ 22,350.00	\$ 203,700.00	\$ 97,275.00

**BUREAU OF ENVIRONMENTAL RADIATION ENFORCEMENT
 ACTIONS FOR MAY 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
5	1	4	4	0	4	9

**PENALTY AMOUNT ASSESSED AND COLLECTED FOR ACTIONS
 ISSUED**

Total Amount Assessed in May 2009	Total Amount Assessed for the Year to Date	Total Amount Collected Year to Date
\$ 3,000.00	\$ 22,775.00	\$ 16,850.00

Inspector: ALL

Number of Inspections Performed

Inspection Type	Inspection Description	Facilities Inspected	Machines Inspected	Machines Audited	Machines Uninspected
1	ROUTINE INSPECTION	119	319		19
12	STEREOTACTIC INSPECTION	7	6		1
15	QA INSPECTION ROUTINE LEVEL 1	65	95	115	6
22	NON-QA INSPECTION - HOSPITALS	2	15		6
Total On-Site Inspections:		193	435	115	32
6	OFFICE VIOLATION RESPONSE REVIEW	16		31	
7	OFFICE RADIATION SAFETY SURVEY INSPEC	1		2	
18	OFFICE QA VIOLATION RESPONSE REVIEW	12		13	
23	OFFICE TECH CERT INSPECTION	9		9	
24	OFFICE INITIATED ENFORCEMENT ACTION (I	91		232	
Total Office Inspections:		129		287	0

Number of Enforcement Documents Issued

NOV	10
AO	103
NOP	24
Amount of Penalties	\$14,800

Inspector: ALL

Violation Code	Glossary Information	Description Non-Compliance	Number of Violations	
			By DNC	By Code
Violations Cited Non-QA				
ACT				
ACT-003	26.2D-35	X-rayed humans without a valid NJ license	7	7
Cabinet				
C-006	17.7(c)	Requirements for film badges not met.	4	4
C-019	17.7(i)1	Requirements for safety devices not met.	1	1
Dental				
D-016	16.3(a)7	kVp exceeds manufacturer's specifications (certified unit).	1	1
D-024	16.3(a)15	Timer reproducibility exceeds 7% for noncertified unit	1	1
D-025	16.3(a)16	Timer accuracy exceeds manufacture's specifications (certified units).	1	1
D-028	16.3(a)18	Radiation reproducibility exceeds 7% for noncertified unit	1	1
D-038	16.5(a)	Requirements for cephalometric unit not met.	1	1
FEE				
FEE-001	3.12(g)	Failed to pay registration fees within 60 days of invoice date.	232	232
Registration				
REG1	3.1 (a) and (b)	Failed to register the ionizing radiation producing machine within 30 days of acquisition.	28	28
S				
S-001	7.1(a)	Radiation survey inside and outside controlled area not performed by a qualified individual.	1	1
Therapy 1 Mev and Above				
TA-118	14.4(v)	Requirements for spot-checks not met	1	1
Total Violations Cited Non-QA			279	
Violations Cited QA				
Quality Assurance				
QA-011	22.5(a)2	QC tests from Table 1 (Radiographic) not performed at the required intervals.	7	7
QA-012	22.5(a)3	Medical Physicist's QC Survey not performed at required interval or all tests not performed.	3	3
QA-023	22.5(e)	Failed to immediately initiate steps to bring processing into compliance.	2	2
QA-027	22.5(g)	Failed to immediately initiate corrective action. Following item in table 1 was out of compliance:	2	2
QA-032	22.5(j)	Did not keep test record for at least one year.	1	1

06/08/2009

NJDEP BUREAU OF RADIOLOGICAL HEALTH
INSPECTOR ACTIVITY REPORT
05/01/2009 THROUGH 05/31/2009

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Inspector: ALL

Violation Code	Glossary Information	Description Non-Compliance	Number of Violations	
			By DNC	By Code
Violations Cited QA				
Quality Assurance				
QA-037	22.6(a)2	QC tests from Table 2 (Fluoroscopic) not performed at the required intervals.	4	4
QA-063	22.7(a)2	QC tests from Table 3 (CT) not performed at the required intervals.	1	1
Total Violations Cited QA				<u>20</u>
Total Violations				<u>299</u>

TECHNOLOGIST CERTIFICATION SECTION

MONTH OF MAY

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	T O T A L M O N T H	FY TO DATE	TOTAL DUE THIS FY
Initial Licenses Issued	23	1	4	52	-	-	-	-	80	1,196	N/A
Licenses Renewed	23	1	5	42	-	1	-	-	72	20,092	N/A
Total Licensed	8,545	1,140	750	10,600	151	38	5	-	N/A	21,229	N/A
Exams Scheduled	-	-	-	-	1	1	-	-	2	206	N/A
Investigations Conducted	2	-	1	3	-	-	-	-	5	50	30
Licenses Verified	316	15	21	439	1	-	-	-	853	7,829	8,000
Expired Licenses	3	-	-	3	-	-	-	-	6	18	N/A
Unlicensed	1	-	-	1	-	-	-	-	2	40	N/A
NOP's Issued	4	-	-	4	-	-	-	-	8	58	N/A
Penalty (\$)	\$600	-	-	\$600	-	-	-	-	\$1,200	\$16,000	N/A
Licenses Sanctioned	1	-	-	-	-	-	-	-	-	1	N/A
Approved Educational Programs	16	3	4	36	1	-	1	-	61	N/A	N/A
Program Applications Evaluated	-	-	-	-	-	-	-	-	0	2	11
Program On-site Evaluations	-	-	-	2	-	-	-	-	1	9	12
Total Programs Evaluated	-	-	-	2	-	-	-	-	1	11	23
Clinical Applications Approved	-	-	-	68	-	-	-	-	68	846	900

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

Type of Facility	INDUSTRY	PHYSICIAN	HOSPITAL	GOVERNMENT	TOTAL MONTH	FY TO DATE	TOTAL DUE THIS FY	
MQSA								
Facilities Inspected	0	20	12	0	32	198	239	
Machines Inspected	0	24	22	0	46	274		
FDA Violations Level 1	0	1	0	0	1	6		
FDA Violations Level 2	0	3	1	0	4	38		
FDA Violations Level 3	0	3	0	0	3	24		
Registrations	0	2	1	0	3	39		
Stored	0	3	1	0	4	57		
Canceled	0	0	0	0	0	0		
Stereotactic								
Facilities Inspected	0	1	5	0	6	52		60
Machines Inspected	0	1	5	0	6	54		
Notice of Violation	0	0	0	0	0	2		
Administrative Order	0	0	0	0	0	1		
Notice of Prosecution	0	0	0	0	0	1		
Registrations	0	0	0	0	0	3		
Stored	0	0	1	0	1	7		
Canceled	0	0	0	0	0	0		

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL SAFETY AND HEALTH
RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT
BUREAU OF ENVIRONMENTAL RADIATION
MAY 1, 2009 THROUGH MAY 31, 2009

SECTION III - BUREAU OF ENVIRONMENTAL RADIATION

A. RADIOLOGICAL ASSESSMENT SECTION

Contaminated Sites

BOMARC Missile Site

Staff met with staff from Ft. Dix and their consultant to review the revised Final Status Survey Report for the missile shelters.

Contact: Jenny Goodman (609) 984-5498

Shieldalloy Metallurgical Corporation (SMC)

Staff continues to participate in conference calls between the US Nuclear Regulatory Commission (NRC) and SMC. The calls are in regards to SMC's decommissioning plan which proposes to leave its radioactive slag on site. This proposal will not meet New Jersey decommissioning regulations. It is anticipated that New Jersey will become an Agreement State by September 30, 2009 and at that time SMC will be required to comply with New Jersey regulations.

Contact: Jenny Goodman (609) 984-5498

Picatunny Arsenal

Staff reviewed the revised Sampling Summary Report of the former dog pound area of Picatunny Arsenal.

Contact: Jenny Goodman (609) 984-5498

Maywood

Staff reviewed several post remedial action reports for vicinity properties at the Maywood site.

Contact: Jenny Goodman (609) 984-5498

Heritage Minerals

Staff began to review the revised Remedial Investigation Plan for the Heritage Minerals site in Manchester Township.

Contact: Jenny Goodman (609) 984-5498

GEMS Landfill

Staff reviewed the result reports for the thermoluminescent dosimeters placed near the solids holding tank. After several years of data, it was apparent that the public exposure limit would not be exceeded. Staff granted the GEMS request to discontinue the monitoring program.

Contact: Jenny Goodman (609) 984-5498

Welsbach/General Gas Mantle

Staff reviewed *Discharge Monitoring Reports* for the Temple Site Outfall DSN005, South Branch Newton Creek, and the Trans-Ship Site Outfall DSN003, Little Timber Creek for the months of March and April, 2009.

Contact: Nancy Stanley (609) 984-5452

Agreement State

Inspections

Staff accompanied the NRC on inspections of cardiologist offices on May 26th.

Contact: Nancy Stanley (609) 984-5452

Training

Staff are preparing presentations on the new Agreement State regulations.

Contact: Jenny Goodman (609) 984-5498
Ed Truskowski (609) 984-5542
Nancy Stanley (609) 984-5452
Karen Flanigan (609) 292-1938

Other

Staff participated in 2 Outreach Sessions for the public on the 8th and the 11th, which were held to allow licensees to learn about NJ's transition to becoming an Agreement State.

Contact: Jenny Goodman (609) 984-5498
 Ed Truskowski (609) 984-5542
 Nancy Stanley (609) 984-5452
 Karen Flanigan (609) 292-1938

Radionuclides in Water

Radium

Staff continues to license community water systems and non-transient, non-community water systems that treat for radium. Licenses were amended to clarify testing requirements and add specific time requirements for submitting reports to BER. Staff also implemented a new procedure for logging and reviewing dosimetry and discharge data received from licensees.

Contact: Karen Flanigan (609) 292-1938
 Nancy Stanley (609) 984-5452

Other

Staff completed the 2008 Right to Know Survey for BER's portion of the building.

Contact: Karen Flanigan (609) 292-1938

Training

Certified Hazardous Materials Managers Course

Staff presented an introduction to radioactive materials principles to 16 students in the Certified Hazardous Materials Managers Program on May 14.

Contact: Ed Truskowski (609) 984-5542

B. RADIOACTIVE MATERIALS SECTION

During the month of May, 2009 the Radioactive Materials Section (RMS) responded to three (3) radiation incidents:

1. On May 13, 2009, the Radioactive Materials Section (RMS) was notified by Trenton Dispatch that a load of municipal waste from a hospital in Belleville set off the radiation alarm at an incinerator in Newark. The load was rejected and returned to the hospital. It was secured there for a few days to allow for decay of the radioactive material. The load was subsequently returned to the incinerator, where it was processed without incident.
2. On May 22, 2009, a State mandated furlough day, at approximately 1:45 a.m., Trenton Dispatch informed a member of the Bureau of Environmental Radiation that a load of municipal waste from the New York City Department of Sanitation (NYCDOS) set off the radiation alarm at an incinerator in Newark. The load was rejected and returned to the NYCDOS. New York City Radiation Control Officials were notified the next working day.
3. On May 25, 2009 at approximately 3:30 a.m., Trenton Dispatch informed a member of the RMS that a load of municipal waste from the NYCDOS set off the radiation alarm at an incinerator in Newark. The load was ejected and returned to the NYCDOS. Since this was a holiday, New York City Radiation Control Officials were notified the next day.

Contact: William Csaszar (609) 984-5555

Accompaniments

A member of the RMS accompanied a U.S. Nuclear Regulatory Commission (NRC) representative on inspections of a facility that employs portable gauge devices, two broad scope research and development facilities and a cardiology office, while another member of the RMS accompanied the NRC on inspections of a cancer center, two cardiology offices and a pharmaceutical research company. These were done to observe NRC inspection methodologies in preparation of New Jersey becoming an Agreement State.

Contact: William Csaszar (609) 984-5555

Routine Activities of the Radioactive Materials Section

Summarized at the end of the Monthly Report.

C. RADON SECTION

Outreach

An exhibit booth was staffed by the Radon Section at the 3rd Annual “Head To Toe Women’s Expo” sponsored by Mercer and Burlington County Woman Newspapers held at the Robbinsville High School in Robbinsville on May 2, 2009.

The Radon Section conducted a presentation at a training seminar entitled “Environmental Health Promotion: Where We Live, Work and Play” that was sponsored by the New Jersey Society of Public Health Educators held at the Monmouth County Health Department in Freehold on May 14, 2009.

The FY2009 Outreach Report was prepared.

Radon Awareness Program (RAP) - The SOP for RAP was revised and approved and is available on the shared drive.

Newborn Pilot Program- The SOP revisions were made and it is under final review. No requests for test kits were received by the Warren County Health Department to date from either the Hackettstown Medical Center or the Phillipsburg Registrar’s Office.

Newsletter articles are being compiled.

Paperwork documenting various costs associated with the National Radon Poster Contest was prepared and submitted to the National Safety Council for reimbursement.

An EPA survey was completed and submitted. The survey dealt with outreach strategies and the use of state websites and other web tools. This survey is for a future EPA Webinar.

The Communications Office has completed their review and revisions on a general health card, which is intended for distribution at physician offices, health food stores, and other health-related forums.

Paperwork was prepared for the NJ Science Convention to be held on October 13-14, 2009 in Somerset.

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

Program Administration Fee Billing Report

On December 8, 2008, the Program Administration Fee (PAF) billing for the semiannual period from January 1, 2008 through June 30, 2008 was sent to Treasury for printing and mailing. The total amount billed was \$84,052.00. All bills were paid, leaving no balance due.

Contact: Herb Roy (609) 984-5433

Measurement and Mitigation Radon Certifications

A total of 61 radon professional applications were approved. They consisted of four measurement specialists, five mitigation specialists and 52 measurement technicians. A

total of two professionals were moved from provisional to full certification status. Business application approvals consisted of two measurement businesses and two mitigation businesses.

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, fourteen electret devices were mailed to three homeowners for post-mitigation confirmatory testing. Twelve have been returned. A summary of the post-mitigation radon home results is listed below:

<u>House</u>	<u>Floor Level</u>	<u>Radon Concentrations (pCi/L)</u>
1.	Basement	2.0
	Basement	2.3
	Basement	2.0
	Basement	2.2
	First Floor	1.2
	First Floor	1.5
	First Floor	1.2
	First Floor	3.6*
2.	Basement	1.6
	Basement	2.4
	Basement	1.3
	Basement	1.6

*Regarding House 1, the 3.6 pCi/L result, which is quite out of range from the others in the house, is attributed to a loose top on the electret device, either from the homeowner not tightening properly or from transportation through the postal system.

The DEP and the Environmental Protection Agency (EPA) both recommend that you take action to mitigate your home if your test results indicate radon levels of 4.0 pCi/L of radon or more.

If the post-mitigation radon test result is greater than 4 pCi/L, a long-term (>90 days) radon test must be conducted in the lowest living area of the house. If the result of this test is at or below 4 pCi/L, the mitigation is deemed effective.

If the long-term radon test result is greater than 4 pCi/L, the homeowner must contact the certified radon mitigation business that installed the system or any certified mitigation business, to make appropriate corrections. A list of certified radon mitigation businesses is also enclosed with the test results.

Contact: Charles Renaud (609) 984-5423

Inspections

One mitigation business was inspected during the month.

Contact: Charles Renaud (609) 984-5423

D. NON-IONIZING RADIATION SECTION

Mercury Vapor Lamp Corrective Actions

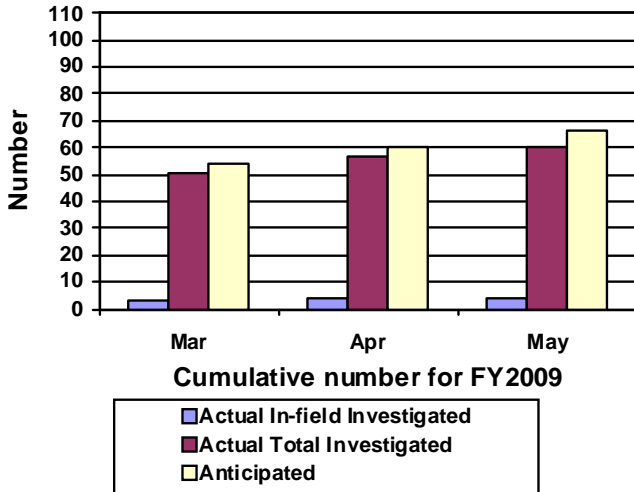
This month, a reinspection was conducted of a facility that received a notice of violation for using non-self-extinguishing (R-type) mercury vapor bulbs in open fixtures. This facility was a department store in Mercer County, with a sister store located in Middlesex County. Both locations chose to replace the mercury vapor lights with a high-efficiency fluorescent lamp system, placing them in compliance with N.J.A.C. 7:28-41, Mercury Vapor Lamps.

Two other locations in central New Jersey were observed to have covered mercury vapor lamp fixtures. One was a middle school and the other was a commercial facility.

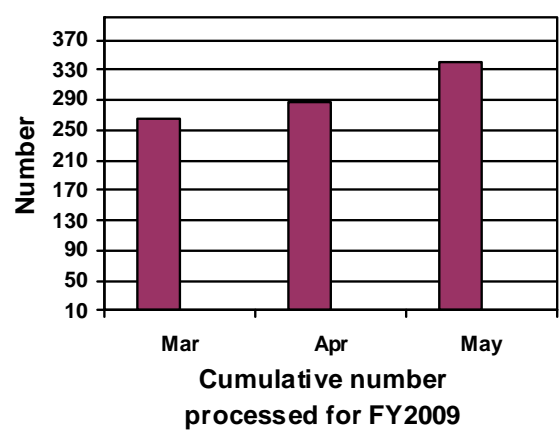
Contact: Deborah Riggs Wenke (609) 984-5521

SUMMARY OF THE ROUTINE ACTIVITIES OF THE RADIOACTIVE MATERIALS SECTION

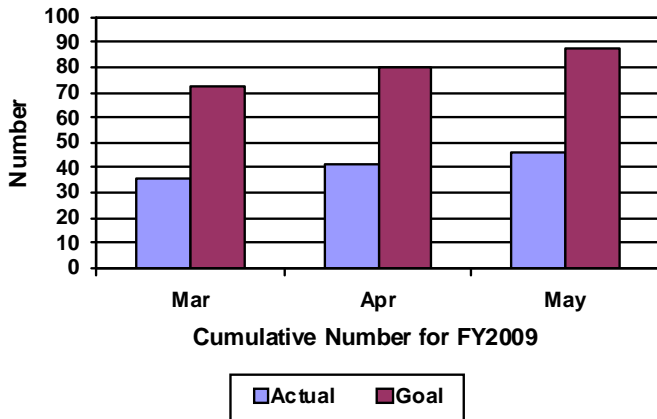
Responses to Radiation Incidents



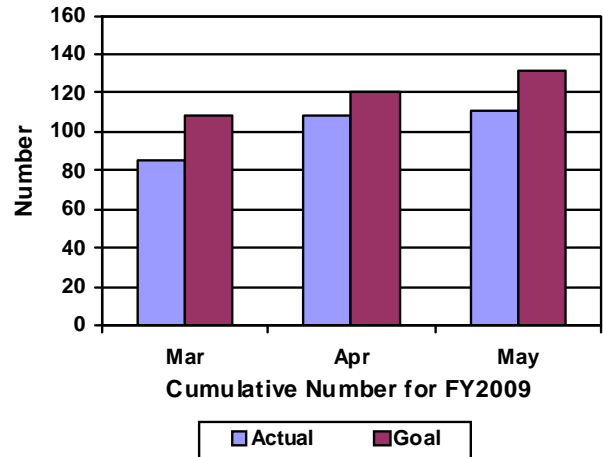
Licensing Actions Performed



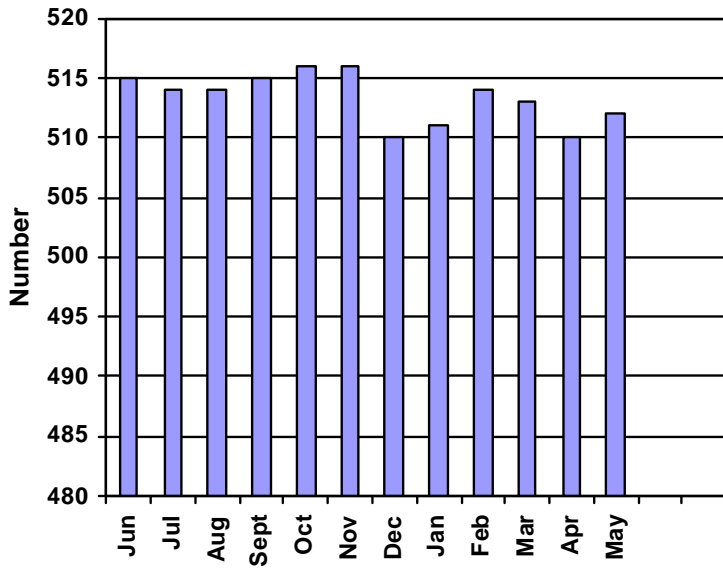
Priority I License Inspections Performed



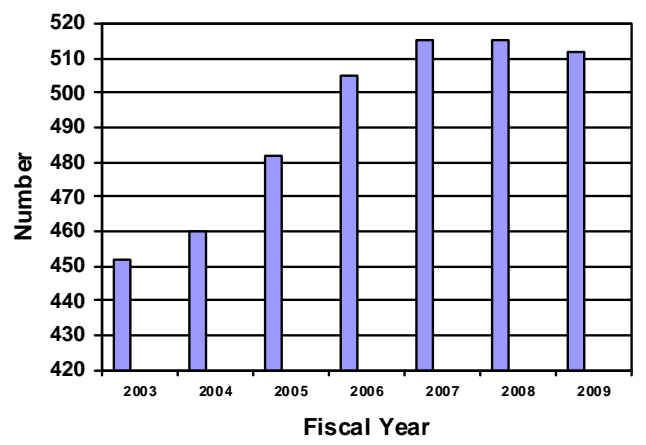
Priority II & III License Inspections Performed



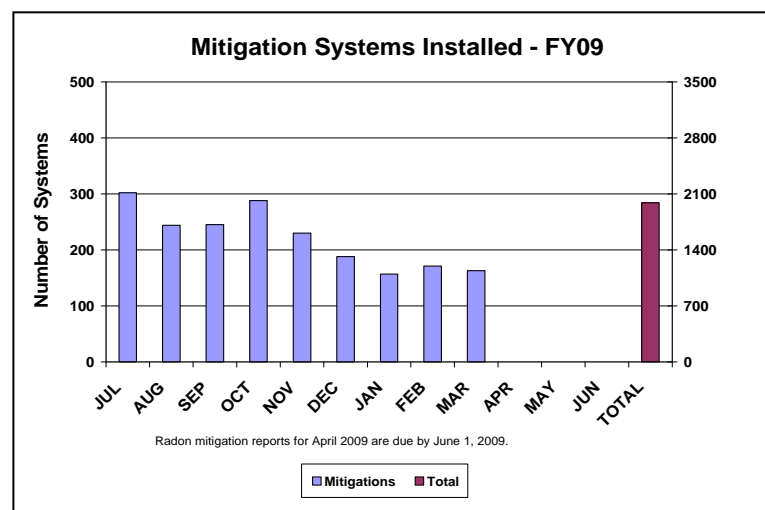
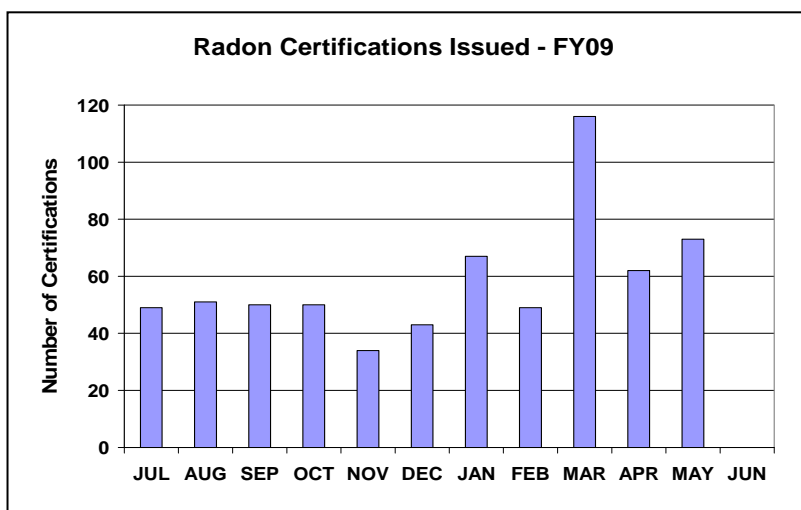
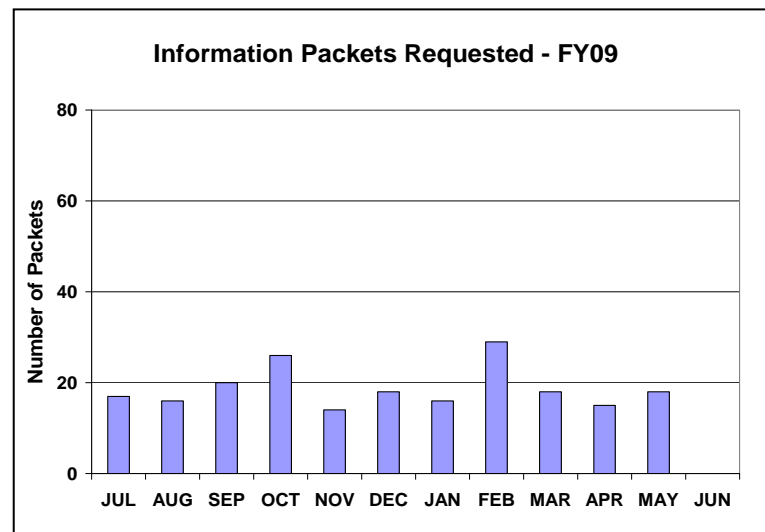
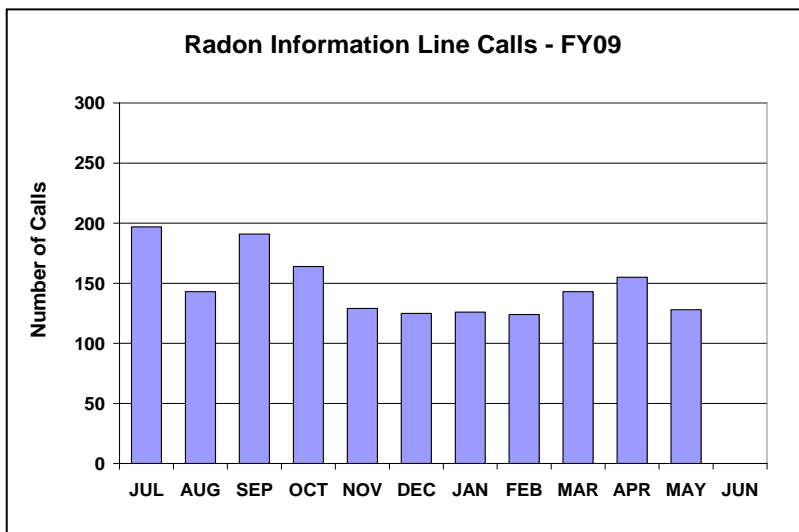
Active Licenses

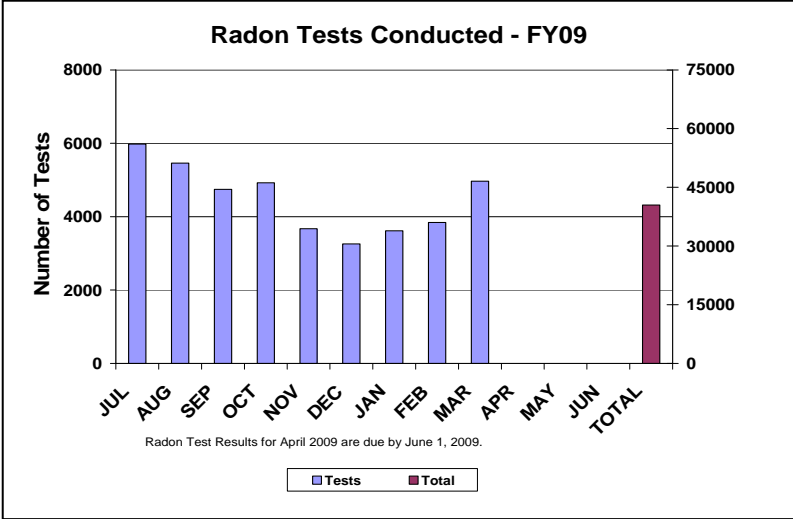


Annual Report of Licenses Maintained



BUREAU OF ENVIRONMENTAL RADIATION SUMMARY OF STATISTICS





DIVISION OF ENVIRONMENTAL SAFETY AND HEALTH
RADIATION PROTECTION AND RELEASE PREVENTION ELEMENT
MONTHLY REPORT
MAY 01, 2009 TO MAY 31, 2009

IV - BUREAU OF NUCLEAR ENGINEERING

SIGNIFICANT ACCOMPLISHMENTS/ISSUES

NRC Hosts Oyster Creek Public Information Session and Annual Assessment Meeting

On May 28, 2009 the NRC hosted their annual meeting to provide the results of their annual assessment of Exelon's performance related to Oyster Creek. The meeting was held at the Holiday Inn in Toms River.

Prior to the meeting, the NRC hosted a public information session from 6 to 7 PM. About 20 NRC employees were on hand to informally provide information to the public on any topic.

The NRC characterized Exelon's performance for 2008 as all "green" or within the regulatory response band. This means that the basic regulatory oversight program will be in place for 2009. Exelon took the opportunity to explain three recent shutdowns due to problems with a main transformer. They also explained the discovery of tritium in a concrete vault and their actions to find the source of the leak, stop the leak, monitor the ground water, and future plans such as running the pipe above ground or in concrete vaults.

At 8 PM, after a short break, the open session began where the public could ask questions of the NRC staff. This session was hosted by the NRC's Regional Administrator.

About 25 members of the public attended. In attendance were representatives from two public officials, Congressman Adler and Assemblyman Van Pelt. One radio station and two newspapers were there.

Thirteen people asked questions or made statements. The session was recorded but will not be transcribed. Copies of the recording will be available to the public, but in limited numbers.

The meeting ended at 9:45 PM, the NRC remained to continue informal individual discussions.

Contact: Rich Pinney (609) 984-7558

OTHER INFORMATION

Nuclear Power Plant Operation

Oyster Creek

Operators at Oyster Creek Generating Station manually shut down the reactor on Saturday, April 25, at 6:04 p.m. due to loss of cooling on the M1A transformer. Exelon replaced the control power on the transformer, replaced a fuse and made a power supply modification to ensure future reliability.

Operators returned the plant to 100% power at 10:55 AM on May 7, 2009.

Contact: Rich Pinney (609) 984-7558

Hope Creek

Hope Creek began the month in the final stages of Refueling Outage 15 which ended on May 4 when Hope Creek synchronized to the electrical grid. Hope Creek then began power ascension, reaching 100% power on May 7. On May 8, power was reduced to approximately 90% to perform control rod pattern adjustments and then was returned to 100%. The unit remained at 100% power until May 17 at which time a manual scram was inserted as a result of a leak in the scram air header. The leak was repaired and the plant was returned to 100% power on May 20, where it operated for the remainder of the month.

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

NRC Inspection of Modifications at Oyster Creek

During the weeks of May 4 and 11, 2009, the NRC conducted an inspection of modifications at Oyster Creek. The inspection team consisted of a team leader and 3 team members. One BNE employee observed the inspection.

The team selected a sample of modifications for inspection. This inspection is performed once every three years. The team also reviewed a sample of safety evaluations associated with modifications and procedure changes. Where appropriate, the inspectors walked down selected modifications and met with the responsible engineer for each one.

The results of the inspection will be included in a future NRC inspection report.

Contact: Rich Pinney (609) 984-7558

Salem and Hope Creek Site Activities

A BNE engineer attended the Management Review Committee (MRC) meetings at Salem on May 5. The MRC determines the significance levels on new notifications and approves root cause, common cause and apparent cause evaluations performed in the Corrective Action Program.

Two (2) BNE engineers attended the NRC's Annual Assessment Meeting for the Salem and Hope Creek plants on May 5. This was a public meeting where the NRC summarized their assessment of Salem and Hope Creek performance during 2008. The meeting was held in the Salem County Emergency Operations Center.

On May 26, one BNE engineer met with the Hope Creek Plant Manager to discuss the operations of the plant during April and May.

Two (2) BNE engineers completed their review of the Salem and Hope Creek Aging Management Reports that were prepared as part of the License Renewal process, on May 13, at the Exelon Nuclear office in Kennett Square, PA.

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 May 2009.

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

Contact: Rich Pinney (609) 984-7558

Hostile Action Based Drill

Nuclear Regulatory Bulletin 2005-02 “Emergency Preparedness and Response Actions for Security-Based Events” suggests that licensees should periodically test and exercise threat-based emergency capabilities. It is suggested that each site perform one threat-based drill between September 2006 and December 2009. On May 19th the Hope Creek Nuclear Generating Station conducted a Hostile Action Based Drill. PSEG, the BNE, and the State Police Office of Emergency Management supported the drill by participating at off-site response facilities. The Emergency Operations Facility and Emergency News Center located in Woodstown, and the Emergency Operations Center located at the Regional Operations and Intelligence Center in West Trenton were staffed by responders. In addition, an Incident Command Post located at the Lower Alloways Township court house was activated. The purpose of the exercise was to test the Incident Command System and integrate local, state and federal law enforcement, fire, medical and hazmat agencies.

Contact: Nick DePierro (609) 984-7442

Municipal Emergency Operations Centers (EOC) Drill

The Radiation Accident Response Act requires the New Jersey REP program to exercise and evaluate the Radiological Emergency Response Plan annually at each nuclear generating site. To this end, on the evening of May 20th Nuclear Emergency Preparedness staff participated as evaluators in a municipal Emergency Operations Center drill in Salem and Cumberland counties. The purpose of the drill was to evaluate municipal EOC plans within the ten mile emergency planning zone around the Artificial Island nuclear generating site. NEPS staff evaluated the Lower Alloways Township and Elsinboro EOCs during the exercise. In addition, the mobility impaired objective was demonstrated by the Elsinboro Fire and First Aid Squads. Each EOC was evaluated against FEMA’s exercise criteria and successfully met all objectives during the drill.

Contact: Nick DePierro (609) 984-7442

Emergency Facility Inspections

State Emergency Operations Center	5/19/09
Woodstown Forward Command Post	5/18/09
Salem Emergency News Center	5/18/09
Salem Emergency Operations Facility	5/18/09
Berkeley Forward Command Post	5/15/09
Toms River Emergency Operations Facility	5/15/09
Toms River Joint Information Center	5/15/09

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 62 samples during the month of May 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 any state or federal radiological 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. These reports are available 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 MAY 2009

<u>SAMPLE MEDIUM</u>	<u>NUMBER OF SAMPLES</u>
AIR FILTER	25
CHARCOAL	25
MILK	3
AQUATIC BIOTA	5
SURFACE WATER	4
TOTAL SAMPLES	62

Contact(s): Karen Tuccillo (609) 984-7443, Compton Alleyne (609) 984-7455 or Paul E. Schwartz (609) 984-7539

Update on Salem 1 Tritium Leak Remediation

During the month, 18 samples were collected and shipped to the BNE's contract laboratory for radiological analysis. BNE results can be found on the NJDEP website at <http://www.nj.gov/dep/rpp/welltab.htm>.

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

NRC Occupational Radiation Safety Inspection at Salem Generating Station

A NRC inspection of the Occupational Radiation Safety activities at Salem Nuclear Generating Station (NGS) was conducted from May 18-22, 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 (IP) 71121, "Occupational Radiation Safety". The inspection focused on the following areas for adherence to NRC requirements: 1) field observations of radiological controls and practices to verify that personnel dose is maintained As Low As Reasonably Achievable (ALARA), 2) field verification of radiological instrumentation daily functionality sign-offs by plant radiation protection personnel, 3) review of calibration and source check documentation to confirm accuracy and reliability of radiological instrumentation identified through field verification, 4) review of calendar year 2008 declared pregnant worker records, and 5) verification of Self Contained Breathing Apparatus (SCBA) air supply tank refilling station reliability utilizing the most recent maintenance records. The results of the inspection will be documented in NRC Salem Integrated Inspection Report 09-002.

Contact: Tom Kolesnik - (609) 984-7575

Radiological Environmental Lab Services Contract

A contract kickoff meeting was held with GPL Laboratories on May 12, 2009 at the BNE office in Ewing, New Jersey. The contract is for the analysis of all sampling media collected by the BNE, which includes air, milk, water, fish/shellfish, vegetation, and aquatic sediment. Items discussed included sample processing (shipping and maintaining chain of custody), the required sample data package, electronic data exchange using File Transfer Protocol, and sample invoicing. Samples will be sent to GPL Laboratories for analysis starting the week of June 1, 2009.

Contact(s): Karen Tuccillo (609) 984-7443, Compton Alleyne (609) 984-7455, Paul E. Schwartz (609) 984-7539

Investigation of Tritium Found in Onsite Vault at the Oyster Creek Nuclear Generating Station

Exelon continues to sample the onsite groundwater monitoring wells in the vicinity of the underground cable vault to determine whether the tritium is migrating towards the property boundary and to ensure that the tritium levels decrease as would be anticipated if the leaks were terminated. Daily surface water samples are also being taken from the plant's intake canal and the discharge canal, including the Route 9 Bridge which represents the nearest public access point. The BNE has been receiving split samples of groundwater monitoring wells, surface water and soil for independent analysis by our radiological contract laboratory. Sampling has shown no detectable levels of tritium in surface water samples, therefore posing no threat to public health and safety. During the month of May, 17 well and surface water samples were collected and shipped to the BNE's contract laboratory for radiological analysis. Results of the DEP's split sampling efforts have been posted to the Department's website address at

<http://www.state.nj.us/dep/rpp/bne/index.htm> for public viewing. Additional information on tritium in groundwater at nuclear power plants can be found at the USNRC website, <http://www.nrc.gov/reactors/operating/ops-experience/grndwtr-contam-tritium.html>.

Contact(s): Karen Tuccillo (609) 984-7443 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 Generating Station 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 Hope Creek and Salem Generating Stations, 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 Generating Stations and the Oyster Creek Nuclear Generating Station for April 2009 are included below. The increase in the release of tritium in liquid effluent at the Salem Units 1 and 2 facilities during the month of April (and March) was the result of normal activities at both Salem nuclear units. The liquid effluent release pathways for Salem Unit 1 and Salem Unit 2 are directly connected. Nuclear facilities routinely store liquid effluents while the plant is operating. This effluent is then released within guidelines set forth by the U.S. NRC and the facility.

**PSEG Nuclear
Radioactive Effluent Releases
Nuclear Environmental Engineering Section
For the Period of 04-01-09 to 04-30-09**

**Hope Creek
Gaseous Effluents**

<u>Effluent</u>			
Fission Gases	1.53E-01	Ci	
Iodines	8.63E-04	Ci	
Particulates	2.09E-04	Ci	
Tritium	8.50E-04	Ci	

**Hope Creek
Liquid Effluents**

<u>Effluent</u>			
Fission Products	2.02E-03	Ci	
Tritium	2.22E+00	Ci	

**Salem Unit I
Gaseous Effluents**

<u>Effluent</u>			
Fission Gases	1.03E+01	Ci	
Iodines	0.00E+00	Ci	
Particulates	8.77E-07	Ci	
Tritium	1.46E+01	Ci	

**Salem Unit I
Liquid Effluents**

<u>Effluent</u>			
Fission Products	6.80E-04	Ci	
Tritium	3.34E+01	Ci	

**Salem Unit II
Gaseous Effluents**

<u>Effluent</u>			
Fission Gases	0.00E+00	Ci	
Iodines	0.00E+00	Ci	
Particulates	1.80E-06	Ci	
Tritium	0.00E+00	Ci	

**Salem Unit II
Liquid Effluents**

<u>Effluent</u>			
Fission Products	8.67E-04	Ci	
Tritium	6.08E+01	Ci	

Ci = curies of activity

**Exelon Nuclear
Radioactive Effluent Releases
Nuclear Environmental Engineering Section
For the Period of 04-01-09 to 04-30-09**

<u>Oyster Creek Gaseous Effluent Elevated Releases</u>			<u>Oyster Creek Gaseous Effluent Ground Releases</u>		
<u>Effluent</u>			<u>Effluent</u>		
Fission Gases	6.37E-01	Ci	Fission Gases	0.00E+00	Ci
Iodines	7.13E-05	Ci	Iodines	0.00E+00	Ci
Particulates	6.68E-06	Ci	Particulates	0.00E+00	Ci
Tritium	8.16E-01	Ci	Tritium	1.65E-01	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 during the month of May.

Contact: Ann Pfaff (609) 984-7451

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

Artificial Island CREST System Ambient Radiation Levels May 2009 Derived From One Minute Averages UNITS = mR/Hr				
AI1	AI2	AI3	AI4	AI5
.0067	.0069	.0070	.0077	.0070
AI6	AI7	AI8	AI9	AI10
****	.0062	.0058	.0078	.0060

Oyster Creek CREST System Ambient Radiation Levels May 2009 Derived From One Minute Averages UNITS = mR/Hr			
OC1	OC2	OC3	OC4
.0070	.0058	.0059	.0053
OC5	OC6	OC7	OC8
.0059	.0058	.0053	****
OC9	OC10	OC11	OC12
.0062	.0092	.0056	.0057
OC13	OC14	OC15	OC16
.0054	.0058	.0075	.0062

**** indicates no data

Contact: Ann Pfaff (609) 984-7451

CREST Status

Four CREST sites were converted to wireless data transmission in May 2009: OC2, OC10, OC14 and OC16. This brings the total number of wireless sites to eight, seven around Oyster Creek and one at Artificial Island.

CREST site A11 went down in May during PSEG's electrical testing. The site was restored by manually cycling power to the equipment. PSEG is providing support in relocating the CREST station located near the Artificial Island security checkpoint to a more reliable electrical power source. The electrical line feeding the station has experienced failures that have proved difficult to restore. Consequently, PSEG committed to providing a new location for the monitoring station. They are siting a new telephone pole and installing electrical service, while the Bureau of Nuclear Engineering relocates its equipment to the new pole about 100 yards from the former one. Work is expected to be completed in June 2009.

Contact: Ann Pfaff (609) 984-7451

Air Pollution/Radiation Data Acquisition and Early Warning System

Envitech staff from Texas was onsite at the Bureau of Nuclear Engineering office in May to perform testing and configuration work on the wireless transmission equipment for the CREST stations. Additional refinements to the software have been made which provide improved reliability and performance of each site deployed.

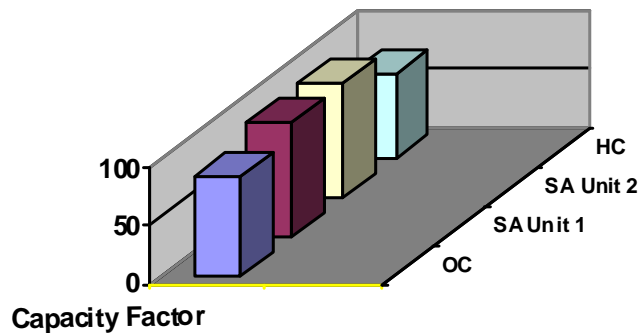
The Office of Information Resource Management (OIRM) has prepared a System Architecture Review (SAR) document to cover the conceptual, logical and physical design of the modem bank project for Air Pollution/Radiation Data Acquisition and Early Warning System. Envitech has provided a proposal for design, installation and training for two modem banks to support dial-up communications to sixteen CREST sites in tandem should the wireless network become unavailable. The associated equipment (modems, device servers and cabling) will be purchased

from separate vendors who provided the lowest cost proposal. One modem bank will support the primary system and a second will support the back-up system at the designated offsite location. DEP staff met with the State Office of Information Technology (OIT)'s SAR review committee on May 18, 2009 to discuss the Conceptual SAR. The committee unanimously approved the portion reviewed and a second meeting with OIT's SAR committee to consider the Logical and Physical SAR is scheduled for June 11, 2009.

Contact: Ann Pfaff (609) 984-7451

BUREAU OF NUCLEAR ENGINEERING

Plant Operating Performance - May 2009



STATISTICAL INFORMATION

<u>EMERGENCY AND NON-EMERGENCY EVENT NOTIFICATIONS FOR MAY 2009</u>						
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.						
	MAY 2009		JAN - MAY 2009		JAN - MAY 2008	
	EE	NEE	EE	NEE	EE	NEE
OYSTER CREEK	0	1	1	3	0	1
SALEM 1	0	1	0	1	0	1
SALEM 2	0	0	0	0	0	3
SALEM SITE	0	1	0	1	0	0
HOPE CREEK	0	5	0	8	0	5

**Bureau of Release Prevention - DPHS
Monthly Report – May 2009**

Priority / Demand	DPCC Output	This Month	FY 2009 to date
<u>1. Plan Submission, Renewals and Amendments</u>	Plans Received	0	2
	Plans Initially Approved	0	1
	Plans Denied	0	0
	Plan Renewals Received	5	93
	Plan Renewals Approved	13	98
	Plan Renewals Denied	3	6
	Plan Amendments Received	1	35
	Plan Amendments Approved	6	46
<u>2. Inspections</u>	Annual Audits	6	149
	Technical Review Inspections	9	115
	Compliance Inspections	1	23
	Follow-up Site Visits	1	25
	Follow-up Document Reviews	1	30
	Incident/Complaint Investigations	0	0
<u>3. Information Requests</u>	OPRA	14	242
<u>4. Discharge Confirmation Reports</u>	Submitted	12	139
	Assigned	0	0
	Accepted	0	0
<u>5. Enforcement Actions</u>	AO/NOCAPA	2	38
	Notice of Violation	3	41
	Settlements	1	21
<u>6. Penalties</u>	New Penalty Assessments (Total Dollar Amount)	\$29,100	\$284,125
	Payments Received	\$2,600	\$133,275
	Cancelled (Current total)	n.a.	\$67,750
	Suspended (Current total)	n.a.	\$250,250
<u>7. Respond to referrals, etc.</u>	Requests received	0	1
	Responses issued	0	1

Additional Activities

Training

Staff members are completing the on-line diversity training as they have time.

Other Items

The Filing (Yefim Kantor), Case Management (Stafford Stewart), and Use of NJEMS (Beth Reddy) SOPS were finalized. The Purchasing SOP is the only one left to finalize.

Section Chief Reddy attended a meeting with Director Lipoti and Assistant Director Baldauf which was requested by Leslie Ledogar of OLA and Tessie Fields of SRP. Possible changes to the DPHS rules required due to the adoption of the LSRP bill were discussed.

Training was given to the entire bureau on the recently completed filing and confidential information SOPs.

Task Progress

The current backlog of plan renewals past their renewal date is 51, a decrease of five from last month.

**Bureau of Release Prevention - TCPA Program - Risk Management & Technical Support
Sections
Monthly Report – May 2009**

Priority / Demand	Output	This Month	4th Qtr. To date	FY 2009 to date
1. <u>Assistance to Office of Homeland Security & Preparedness</u>	Inspections/Reviews	0	0	5
	Support (data, training, etc.)	0	0	0
2. <u>Rulemaking</u>	NJAC 7:31 readoption with amendments: a) propose rule - published in NJR 9/15/08	0	0	1
	b) public hearing	0	0	1
	c) complete adoption (in NJR)	0	0	1
3. <u>Registrant Fee Collection</u>	Bills issued	0	0	87
	Bills collected	8	59	85
	Fee report published & mailed	-	-	1
4. <u>New Covered Process Application Reviews</u>	<i>Applications received</i>	0	0	6
	Applications reviewed & decision letters issued	0	1	6
5. <u>Procedures & Guidance Docs, Maintenance & Development</u>	New & revised technical guidance docs. prepared & distributed	0	0	0
	New & revised SOPs prepared	0	2	12
	Form letters revised (update NJEMS template documents)	0	0	16
6. <u>Review of submitted IST review reports</u>	<i>New & revised IST review reports received</i>	10	11	103
	IST Reports reviewed and letters issued	22	28	42
7. <u>Risk Management Program audits/inspections</u>	1.a. Standard inspections of existing RMPs completed	2	7	48
	1.b. Audits of new & existing facilities completed (scheduled)	0	0	1
	1.c. Unannounced Brief Compliance Inspections	0	0	0
	2. Preliminary determination letters (DCA or DCAA) sent	0	0	2
	3. Signed CA, CAA or RMP-OK letters issued (as of 8/14/08 no longer issuing RMP-OK letters)	0/0/0	0/0/0	3/3/7
8. <u>Enforcement Actions and Case Management</u>	Issue enforcement actions in accordance with NJEMS procedures (issue PEAs)	0	1	15
	Provide case management to settle disputed violations (issue NEAs)	0	2	3
9. <u>Risk</u>	RMPlan diskettes received and loaded to FACITS (new, updates, corrections)	7	12	68

Priority / Demand	Output	This Month	4th Qtr. To date	FY 2009 to date
Management Plan Reviews	RMPlans reviewed and determination letters sent.	5	9	55
10. Annual / Triennial Reports Reviews	Reminder letters issued	1	7	62
	<i>Reports received</i>	4	11	64
	Reports reviewed and letters or enforcement actions issued	5	11	60
11. Compliance Inspections (not RMP audits)	1.b. Non-registered sites inspected for TCPA compliance	0	0	48
	2. Follow-up inspections for compliance with signed CAs, CAAs, and enforcement actions	1	1	32
	3. Accident investigations	0	0	0
	4. Multimedia/GreenStart referrals	0	0	0
12. Communications and Outreach	Prepare responses to OPRA requests & management referrals	3	6	23
	Conduct presentations, workshops, etc.	0	0	0

TCPA Program Penalties, Fees and Activities:

TCPA Penalties	This Month		FY 2009 to date		Notes
Assessed	0	0	\$194,500	20	(2 AOs dated June 30, 2008)
Collected	\$3600	1	\$58,700	12	(2 from FY2008)
Pending Payment	0	0	\$63,067.50	7	(1 from FY2008)
Open (suspended)	0	0	\$166,000	12	PEAs with hearing requests (3-FY08 & 1-FY06)
Cancelled	0	0	\$102,000	7	PEAs rescinded or superceded by NEAs

TCPA Annual Fees	Amount	Registrants	Notes
Total Billed	\$1,510,770.26	87	
Collected to date	\$1,480,085.28	85(+1*)	(*One from FY2008 billing-\$8,171.75)
Percentage	97.9%	97.7%	(doesn't include the one from FY2008)

- 1) May Inspections and Audits:
 - a) Approved risk management program Standard Compliance Inspections (SCI): Dupont Chambers Works and Elan Chemical.
 - b) Follow-up inspections: Spectra Gases.
 - c) Spot-check compliance, deregistration, or SVA inspections: (none)
- 2) Preparations continue for the June 11, 2009 TCPA Rule Amendments Workshop. On May 28 a dry-run was held for Director Lipoti, Assistant Director Baldauf, and Chief Atay, to review and critique the presentations and slides. A TCPA e-mail address list was developed for registrants and interested

- 3) Since the FACITS FY2009 Maintenance Waiver has finally been approved, Mike DiGiore, Linda Cerami, Beth Reddy and Carl Ochs met on May 27, 2009 to prioritize tasks for the coming work by Systemetrix. TCPA's top priority will be the creation of an on-line RMPlan submittal system.
- 4) The TCPA Chemical Safety Engineers continue their review of the IST reports. Disposition letters were sent to 22 facilities indicating their reports meet the requirements of the TCPA rule.
- 5) Paul Komosinsky and Carl Ochs attended the DEP's Diversity Training for Supervisors class given at HRDI on May 28, 2009.