STATE OF ALABAMA

NRC IMPEP 2006

A. <u>COMMON PERFORMANCE INDICATORS</u>

I. Technical staffing and Training:

1. Charts:

- (a) Governor down: Will be provided during review.
- (b) Radiation Control: Will be provided during review.
- ©) No program for these areas.

2. Staffing in the Office of Radiation Control

<u>Position</u>	<u>Area of Effort</u>	<u>FTE</u> <u>%</u>
Director, Licensing	Licensing	55%
	Non-medical x-ray	15%
	Supervision	15%
	Rule writing	5%
	Emergency activities	5%
	Material inspections	5%
Radiation Physicist	Licensing	75%
	Emergency activities	10%
	Materials inspection	5%
	Miscellaneous	10%
Radiation Physicist Senior	Licensing	75%
-	Materials inspections	10%
	Emergency activities	10%
	Misc. Activities	5%
Director, Inspection	Materials inspection	70%
	Incident response/NMED	10%
	Non-medical x-ray/PAs	5%
	Radiography certification	5%
	Emergency activities	5%
	Position Director, Licensing Radiation Physicist Radiation Physicist Senior Director, Inspection	PositionArea of EffortDirector, LicensingLicensing Non-medical x-ray Supervision Rule writing Emergency activities Material inspectionsRadiation PhysicistLicensing Emergency activities Materials inspection MiscellaneousRadiation Physicist SeniorLicensing Emergency activities Materials inspectionsRadiation Physicist SeniorLicensing Materials inspections Emergency activities Misc. ActivitiesDirector, InspectionMaterials inspection Incident response/NMED Non-medical x-ray/PAs

Myron Riley	Radiation Physicist Senior	Materials inspection Non-medical x-ray inspection Mammography inspection Emergency activities RSO duties	75% 5% 7% 10% 3%
Cason Coan	Radiation Physicist Senior	Materials inspection Emergency activities	95% 5%
Michael Cash (Deceased 3/23/06)	Environmental Engineer	Emerg. Plan./Enviro. Monitoring WIPP/SSEB activities Administrative	50% 40% 10%
Tonya Appleyard	Radiation Physicist Senior	Emerg. Planning	100%
Terry Williams	Radiation Physicist Senior	Environmental Surveillance WIPP Emergency activities Administrative (inventory, phones, pagers, vehicle, computers)	65% 20% 10% 5%
Bradley Grinstead	Director X-Ray Section	X-Ray Compliance Emergency activities Miscellaneous	90% 5% 5%
Beverly Carswell	Rad. Safety Specialist III	Mammography X-ray compliance Emergency activities Radon Miscellaneous	70% 15% 8% 2% 5%
Robert Suel	Radiation Physicist Senior	X-ray compliance Emergency activities X-ray administrative	90% 5% 5%
Nick Swindall	Radiation Physicist Senior	X-ray compliance Mammography Emergency activities	75% 20% 5%
Undria McCallum	Radiation Physicist	X-ray compliance Emergency activities R-ray registration	65% 5% 30%
James McNees	Assistant Director	Radon/Administration	

Kirksey E Whatley	Director		Agreen X-ray	nent State Program	20% 17%
			Emerge	ency activities	18%
			WIPP/	SSEB	5%
			Radon		5%
			Homel	and security activities	5%
			Admin	istration	30%
Mary Frazier	ASA V		Admin	istration Support	95%
			Emerge	ency activities	5%
Janette Moss	Account Clerk	C	Admin	istration Support	95%
			Emerge	ency activities	5%
Debra Akhimie	ASA I		Admin	istrative Support	100%
Rita Ester	Retired (Part t	ime)	Admin	istrative Support	100%
3.	New Professio	onals Hired:			
Name	Degrees	<u>Training</u>		Experience	
Michael Champion	BS, EE	5-week ORAU	J	1.5 years radiation10 + years hazardous chemical	emicals
Bridgette Stephens	BS, Bio Med Engineering	5-week ORAU Medical, radio well logging, li	J graphy, icensing	3 years	
Kevin Hicks	BS, Zoology; MS, Public Admin	5-week ORAU (April 3 - May 5, Radon Health Phy (He Licensing (G-1	J 2006) Trainin -117) 109).	1 year radiation, 10 years environmental g	
Undria McCallum	BS, Biology; RT	5-week ORAU (April 3 - May 5,	J 2006)	5 years	
Grant Gardner	BS, Math	5-week ORAU	J	1 year	
Cason Coan	BS Biology	5-week ORAU (April3 - May 5,	J 2006)	4 years, 8 months	
Cornelius Maryland	BS, Math	Most NRC cou	urses	21+ years	

4. Professional staff not yet meeting training requirements.

RESPONSE:

Kevin Hicks and Cason Coan have not completed the full compliment of required courses. See David Walter for information on Kevin Hicks and David Turberville for information on Cason Coan. Both Kevin and Cason will be attending the 5-week Oak Ridge Health Physics Course during April 3 - May 5, 2006.

5. Technical staff who left program:

RESPONSE:

- Edrick Owens ----- Deceased
- Kenneth Thomas ----- Retired
- Richard Glass ----- Retired
- Michael Champion
- Grant Gardner
- Bridgette Stephens
- Curtis Franklin

Rita Ester (clerk)

----- Retired (Back part time)

----- Retired

----- Transferred to another agency

----- Not given permanent status (dismissed)

----- Resigned (now with Texas program)

6. Vacant positions:

RESPONSE:

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Materials program is fully staffed. Two vacancies exist in x-ray but these have no impact on materials (NRC) program.

7. Boards and Committees.

RESPONSE:

The Radiation Advisory Board is an advisory board to the State Health Officer. This Board has served in an advisory capacity when requested by the SHO. The Board does not direct the program nor manage the program. It provides technical support and advice when requested. Several members of the Board are either licensed themselves or work for licensees. Members of the Board are required to file annual Ethics Commission Statements regarding their service and possible conflicts of interests.

II. STATUS OF MATERIALS INSPECTION PROGRAM:

8. Please identify individual licensees or categories of licensees the State is inspecting more or less frequently than called for in IMC 2800 and the state reason for the difference.

RESPONSE:

From Office Procedure 202:

- A. **Program codes 2121 (Medical Institution WD Not Required) and (Medical Private Practice - WD Not required)** are assigned Priority 3 instead of NRC Priority 5.
- B. Program codes 2110 (medical Institution Broad) and 2500 (Nuclear Pharmacies) are assigned Priority 1 instead of NRC
 Priority 2. For these licensees, a full inspection will be performed at least every other year. The off-year inspection will specifically focus on higher risk licensee activities and previous areas of noncompliance.
- C. **Program codes 3218 (Nuclear Laundry) and 3219** (decontamination services) are assigned Priority 2 instead of NRC Priority 3.
- D. **Program codes 2300 (Teletherapy) and 3511 (Irradiators Other Greater than 10,000 Ci)** are assigned Priority 3 instead of NRC Priority 5.
- E. All references to priority T (telephonic contact) are assigned Priority 5. This includes program codes 3122, 3123, 3124, 3220, 11210, 22130, 22160, and 22161.
- F. All references to priority D (Decommissioning Activities) are assigned Priority 1. These licensees are required to notify the Agency prior to commencing decommissioning activities. The inspections are scheduled at times when the licensee is performing decommissioning activities at a site. If no notifications are received prior to the inspection due date, the licensee shall be contacted by phone to verify the status of the program and to confirm that no actual decommissioning activities have been conducted. If no activities have been conducted, the inspection due date shall be changed to one year from the date of the contact. This is applicable

to program codes 3900, 11900, 21325, and 22200.

- G. **Program codes 3140 to 3144 have the same type of devices as** 3120 to 3124 but contain radioactive material not regulated by NRC. Program codes 3140 to 3144 are all assigned Priority 5.
- H. Program codes 3145 (NORM Possession No Activities) and 3146 (NORM Decontamination Services) are added and assigned Priority 3.
- 9. Please provide for the review period, the number of Priority 1, 2, and 3 inspections as identified in IMC 2800 that were completed and the number of initial inspections that were completed.

RESPONSE:

- A. As of February 22, 2006, the number of initial inspections completed during the review period was 55.
- B. As of February 22, 2006, the number of Priority 1, 2, and 3 inspections completed during the review period was 366.
- 10. Please submit a table, or a computer printout, that identifies inspections of Priority 1, 2, and 3 licensees, and initial inspections that are presently overdue or which were conducted at intervals that exceed the IMC 2800 frequencies over the course of the entire review period.

RESPONSE:

There are no overdue inspections and no inspections were conducted at intervals exceeding the IMC 2800 frequencies.

11. If you have any overdue inspections, do you have an action plan for completing them?

RESPONSE:

There are no overdue inspections.

12. Please provide the number of reciprocity licensees that were candidates for inspection per year as described in NRC IMC 1220 and the number of candidate reciprocity inspections that were completed each year during the review period.

RESP	ONSE:

Year		Can	didates	s Priority		Insp	ectior	ns Priority
	1	2	3	5	1	2	3	5
2002	14	1	20	10	1	0	1	0
2003	11	2	14	10	1	1	1	0
2004	9	4	3	27	3	2	0	1
2005	9	6	4	22	1	1	0	1
2006 (2/25)	5	2	2	11	0	0	1	0

- III. Technical Quality of Inspections:
 - 13. What, if any changes were made to your written inspection procedures during the reporting period? .

RESPONSE:

Inspections are continue to be performed in accordance with procedures contained in Chapter 2800. Office procedures were updated on May 12, 2004, to reflect changes in NRC inspection priority. Inspection report templates for gauges, radiography, and well logging have been updated since last IMPEP review.

14. Prepare a table showing the number and types of supervisory accompaniments made during the review period.

Inspector	Supervisor	License Category	Date
Myron Riley	Jim McNees	Non-medical x-ray	7/8/02
Myron Riley	David Turberville	Industrial Radiography	9/24/03
Myron Riley	David Turberville	Industrial Radiography	7/29/04
Myron Riley	David Turberville	Medical private Practice	5/20/05

RESPONSE:

15. Describe internal procedures for conducting supervisory accompaniments of inspectors in the field.

RESPONSE:

Supervisory accompaniments are performed on an annual basis. The supervisor accompanies the inspector on a routine inspection and observes the inspector without interference. The inspector is evaluated on his/her inspection techniques, professionalism and understanding of the rules and license conditions. A memorandum acknowledging the accompaniment is filed in the inspector's personnel file. The final inspection report, prepared by the inspector, is reviewed by the supervisor.

16. Describe or provide an update on your instrumentation, methods of calibration and laboratory capabilities. Are all instruments properly calibrated at the present time? Were there sufficient calibrated instruments available through the review period?

RESPONSE:

Health physics staff are provided Ludlum 14C kits that include 44-9, 44-38, and 44-2 probes for emergency response purposes. These kits accompany each health physics staff members at all times. The kits are kept with staff at home during offduty hours and when away from the office during work hours. Calibration is provided annually by the manufacturer. In addition, the Radioactive Materials Inspection Branch maintains a collection of GM meters, ion chambers, alpha scintillation counters, and microR meters for inspection and emergency response. These meters are calibrated in-house on a six month frequency using approved procedures. A Tech-Ops 773 Cs-137 calibration source and a Pu-238 alpha standard set are used for routine calibration of meters, as appropriate. In addition, several instruments capable of radioisotope identification are also available (Canberra and Exploranium meters)

Manufacturer Model		<u>Quantity</u>	
Ludhum	1AC (Irita)	24	
	14C (KIIS)	24	
Ludlum	14C	2	
Eberline	E-520	5	
Ludlum	19	8	
Eberline	RO-2	8	
Victoreen	1901	1	
FAG	FH40F3	1	
Radiac	CDV-718		3
Bicron	MicroAnalyst	2	
Canberra	Inspector 1000	2	
Exploranium	GS-130	1	
Eberline	ASP-1	2	
Xetex	415B	3	

IV. Technical Quality of Licensing Actions:

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17. How many specific radioactive material licenses does the program regulate at this time?

RESPONSE:

As of February 24, 2006, there are 438 active licenses.

18. Identify major or complex licenses that were issued, major amendment, or terminated during the review period. Also, those that require emergency plans.

RESPONSE:

- A. Eastern Technologies, Inc. (#947) Renewal
- B. University of Alabama at Birmingham (#266) Renewal
- C. .University of South Alabama (#584) Renewal
- 19. Discuss any variances in licensing policies and procedures or exemptions from the regulations granted during the review period.

RESPONSE:

- A. Bexxar, I-131 patient releases.
- B. Glia Site, I-125 Iotrex liquid temporary implant, patient releases.
- C. Burial on a well site of contaminated flow back during well fracturing.
- 20. What if any changes were made in your licensing procedures (new procedures, updates, policy memoranda, etc.) during the review period?

RESPONSE:

New licensing guide for sealed sources in portable gauging devices.

21. Licenses or renewals pending for more than one year.

RESPONSE:

None.

Name	License No.	Date Received	<u>Our Followup</u>
RCOA	1314	12/16/05	12/17/0
St. Vincent's Hospital	327	12/21/05, 1/6/06, 2/2/0	6 2/22/06
Southeast Apothecary	992	12/27/05	1/23/06
Baptist Medical Center	593	1/22/06	2/07/06
Nucor Steel of Tuscaloosa	1426	1/30/06	1/30/06
River Region Cardiology	*	2/09/06	
Medical Center Enterprise	357	2/13/06	2/22/06
UAB - Birmingham	266	2/15/06	
Cardiology of Central Al	1295	2/16/06	
MeadWestvaco	284	2/16/06	
Conam	1075	2/20/06	
Dwight Hostetter	1322	2/21/06	
US Steel	475	2/21/06	
Unified testing	1128	2/22/06	

Open License Cases as of February 24, 2006

* New license application.

- V. Responses to Incidents and Allegations:
 - 22. For Agreement States, please provide a list of any reportable incidents not previously submitted.

RESPONSE: .

<u>All incidents</u> are reported to NRC through the NMED system on a monthly basis. There are no unreported incidents.

23. During this period, did any incidents occur that involved equipment or source failure or approved operating procedures that were deficient?

RESPONSE:

Incidents 03-29, 03-24, and 04-51. Reports will be provided for review. See David Turberville.

24. Identify any changes to your procedures for handling allegations that occurred during the period of this review.

RESPONSE:

There have been no changes during the review period.

- VI. General:
 - 25. Actions taken in response to comments and recommendations from last review.

RESPONSE:

Having received no adverse comments or recommendations following the last review, there were no actions taken. Reviews by NRC in subsequent years have presented no comments or recommendations for which corrective actions were needed..

26. Description of program strength and weaknesses.

RESPONSE:

This is a difficult and unfair question. Most people know their weaknesses. It's their strengths that they don't understand. The answer to this question could be tainted by the person who answered the question. Again, the same as last time, the strengths of this office, from the Director's viewpoint, lie in the integrity and character of the staff. Staff believe in the importance of their work and take pride in doing a good job that reflects their individual character and integrity. Staff members, as a whole, do not accept mediocrity. The program has been sold to staff as their program. Staff gets the credit and recognition for their work. It is their program and not just a job. When one area falters, that weakness is reflected personally with other members of the staff. Peer pressure is real because what happens reflects on all. That is difficult to measure but it is real.

Those attitudes are reflected in most staff members by their willingness to volunteer their services to professional organizations such as OAS, NRC working groups, CRCPD, radon, REP, WIPP, mammography, cancer prevention organizations, HPS, and others. Staff have been, and continue to be, active in many ongoing national discussions and efforts.

Training is another strength. It is not a problem to get staff to attend training courses. Most are eager and jump at the opportunity to do so.

Smart people of good character and integrity, with sound work habits and commitments - those are the strengths of this program. I didn't mention the longevity of staff which translates to many years of hands on experience - which is another major strength. I believe that these statements can be made for years to come because we have been able to hire several new employees who exhibit these characteristics.

Support by upper management is another major strength of this program.

As far as weaknesses are concerned, before the next IMPEP cycle several staff members will have retired. Along with those retirements goes much history and historical perspective which is often a valued commodity to have. Those likely to retire soon include the Director, Assistant Director, Director of Emergency Planning, our Environmental person, and possibly two other program directors.

I hesitate to discuss this as a weakness, but I believe it to be so, and that is the constant draw on staff time to "do other things". Many of these unfunded demands come from federal agencies and simply place undue demand on existing programs, often requiring extensive staff time and expense at the state level. It is often difficult to "keep up" because it seems that every day we are asked to do more with no additional support.

Another weakness that I see from a personal viewpoint has to do with the relationship between the Agreement States and the NRC. Specifically, the states have no access to the Commissioners of NRC through which issues can be addressed other than via the petition process as any licensee. That leaves a distasteful feeling to some of us in state programs since we (NRC and AS) are in the same business. I firmly believe that within state programs a wealth of information and knowledge exists that has not been tapped by NRC and other federal agencies. Those agencies will never be what they can be without using the resources that are available. As Director of this program, I have expressed my concern on several occasions about this without success. Over the years NRC has done a great job of training state program staff. That has resulted in a wealth of knowledge for which NRC should be proud and anxious to use. The staff of this office is grateful to NRC for training provided over the years, and we fully support NRC in all of our common efforts and activities

This paragraph represents my personal views. As director of the Alabama program, I believe that I would be negligent if I failed to share them. Another weakness for which we are often viewed as being responsible, when actually we have no control, is the total lack of a national policy on ionizing radiation. For instance, when issues come to light that involve forced clean-up of "byproduct material" or "NORM" materials, there are different standards, yet both are radioactive material. Waste disposal is another example that is impossible to deal with. There is no national policy to deal with this issue - again byproduct vs. NORM. There are no <u>effective</u> national standards for radiation produced by machines - not even occupational exposure standards. When dealing with individuals (legislators, congressmen, press, etc) with limited knowledge about the roles of NRC, EPA, FDA, DOE, DOT, DOD, etc., and attempting to explain why "it is OK if it is NORM, but not OK if it is

"byproduct", we have problems and lose credibility. Simply saying the NRC does this and EPA does that is not an answer! This all contributes to the misconceptions and fear that we help perpetuate in this country about radiation. I personally see this as one of the major sources of conflict that often develops between state and federal agencies. We, in the states, have to deal with it all!

An additional concern has to do with the impact of NRC unfunded mandates that are placed upon an Agreement State and the ability of Agreement States to maintain an effective program. For instance, with the addition of the GL rule changes, Agreement States are required to maintain files and annual reports from general licensees. Such a requirement is expected to have a significant impact on this program in the form of personnel requirements, including storage and maintenance of files. All category "B" compatibility requirements are unfunded mandates. The increased security measures training that states will have to fund after three years is another example. States do the work for NRC without any funding and little to no support.

B. NON-COMMON PERFORMANCE INDICATORS:

- I. Legislation and Program Elements Required for Compatibility:
 - 27. Current legislation that affects the radiation control program.

RESPONSE:

Chapter 14, Radiation, Public Health Laws of Alabama

28. Sunset legislation requirements:

RESPONSE:

The regulations themselves are not subject to sunset law. The entire program is subject to sunset review once every four years. Most recent review was in 2005 with recommendation for continuance. Next review should be in 2009.

STATUS

29. Status of rule adoption:

RESPONSE:

RATS ID TITLE

2001-1	Certain Detecting, Measuring, Gauging, or Controlling Devices and Certain devices for	Published for comment on Feb. 24, 2006. Adoption date
		of
	Producing Light or an Ionized Atmosphere	May 17, 2006, by SCPH.

1999-3	Respiratory Protection and Controls to Restrict Internal Exposure - Part 20	Adopted April 17, 2002
2000-1	Energy Compensation Sources for Well Logging And Other Regulatory Clarifications - Part 39	Published for comment on Feb. 24, 2006. Adoption date of May 24, 2006, by SCPH
2000-2	New Dosimetry Technology	(See status under 2000-1)
2002-2	Medical Use	Published for comment on Feb. 24, 2006. Adoption date of May 17, 2006, by SCPH.
2003-1	Financial Assurance	Published for comment on Feb. 24, 2006. Adoption date of May 17, 2006, by SCPH.
2005-2	Medical Specialty Boards	Published for comment on Feb. 24, 2006. Adoption date of May 17, 2006, by SCPH.

30. How rules are adopted.

RESPONSE:

It is, and always has been, a goal of this office to honor the state commitment to maintain a program with rules compatible with those of NRC. Rule changes, as required, or recommended by NRC for compatibility are drafted along with a brief explanation of the change and why the change is considered necessary. Those proposed changed are submitted to NRC for review as early as possible. The proposed changes are packaged and sent to members of the State Committee of Public Health for consideration at the monthly meeting, usually on the third Wednesday of the month.

The Committee acts upon a recommendation of the State Health Officer to submit the proposed changes to the State Legislative Reference Service (LRS) for publication in the state equivalent to the Federal Register for comment. The date the changes are filed with the LRS is critical based upon a pre-published calendar. If changes meet certain dates for filing, the minimum time allowed for public comment is 35 days from the actual date of publication, not the date of filing. If that early date is missed, then the changes would be filed in the next month publication, resulting in possibly 70 days from action to end of comment period.

Opportunities are provided for hearings if requested. These may delay final adoption until a hearing officer is satisfied. Comments as received from the public, from hearings, from NRC and other agencies are then analyzed by the staff. Modifications to the rules are then considered by staff. A new draft set of changes, with staff explanations, is then prepared, along with actual copies of all comments received. This package is then forwarded to the State Committee of Public Health at the scheduled meeting time. The Committee acts upon recommendations of staff and comments received and can either give final approval of the package or recommend that the package be again submitted, with the changes, for public comment.

The process can be as short as three months or much longer. Typically the three month time frame is dominant provided no controversial issues develop. If adopted, the package is again submitted to the LRS for publication as final rules which become officially effective 35 days after final publication. In reality, most radiation protection rules are implemented much earlier than actual adoption by license conditions or policy. That is especially true of all significant changes such as those related to increased security controls. Those rules were implemented by license condition as soon as NRC gave the approval of our draft plan.

The office has the ability to take necessary steps to protect public health and safety on very short notice (hour or sooner) if needed.

Controversial rule changes can lead to delays. With the time consuming rule change process, every effort is made to "wait and make sure that what we are doing is OK before it is done." Again, if rule changes have health and safety implications, those changes are implemented as soon as possible using orders or license conditions. Public health and safety has not been jeopardized by the rule adoption process in Alabama.

II. Sealed Source and Device Program

31 through 33.

<u>RESPONSE</u>: .

State of Alabama does not have an active program. No sources nor devices have been evaluated since the previous IMPEP review.

MATERIALS REQUESTED TO BE AVAILABLE FOR THE ONSITE PORTION OF ALABAMA IMPEP REVIEW

- 1. List of open license cases, with date of original request, and dates of follow-up actions.
 - David Walter will provide at IMPEP
- 2. List of licensees terminated during review period

- David Walter will provide at IMPEP
- 3. Log to track licensing actions
 - David Walter will provide at IMPEP
- 4. Log to track inspections
 - David Turberville will provide at IMPEP
- 5. List of inspection frequency by license type
 - David Turberville will provide at IMPEP
- 6. Information on allegations
 - David Turberville will provide at IMPEP

AVAILABILITY OF DOCUMENTS

- 1. State regulations
 - K. Whatley will provide each team member with a copy at IMPEP. These can be viewed at <u>www.adph.org</u>, then under A Z contents click on "R", then on "Radiation", click on "Rules" in left column.
- 2. Statutes affecting the program
 - K. Whatley will provide the review team with a copy during IMPEP
- 3. Standard license conditions
 - David Walter will provide during IMPEP
- 4. Technical procedures/review guides for licensing
 - David Walter will provide at IMPEP
- 5. SS&D review procedures
 - NA
- 6. Instrument calibration records

- David Turberville will provide at IMPEP
- 7. Inspection procedures and guides
 - David Turberville will provide at IMPEP
- 8. Inspection report forms
 - David Turberville will provide at IMPEP
- 9. Records of supervisory accompaniments
 - David Turberville will provide at IMPEP
- 10. Emergency plan and communications list
 - K. Whatley will provide at IMPEP
- 11. Procedures for investigating allegations
 - David Turberville will provide at IMPEP
- 12. Procedures for investigating incidents

Turberville will provide at IMPEP

- 13. Enforcement procedures
 - David Turberville will provide at IMPEP
- 14. Job descriptions
 - K. Whatley will provide at IMPEP