

Texas Radiation Control Program Comparative History 1990 – 2004



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Executive Summary

Texas Radiation Control Program Comparative History 1990 - 2004

The Texas Radiation Advisory Board (TRAB) published *Report and Recommendations to the 72nd Legislature on Programs of the State Related to Radiation* in 1990. The report provides information that is being used with 2004 data in a comparison of issues and operational history of the radiation control program.

The Bureau of Radiation Control (BRC) has operated the regulatory program for all radiation with the exception of disposal of low-level radioactive waste and disposal of NORM. The Governor of Texas entered into an Agreement with the Nuclear Regulatory Commission (NRC) whereby the state assumed responsibility for regulation of radioactive materials with limited exceptions. The State regulatory program also regulates machine-produced radiation (x-ray and laser) and naturally occurring radioactive materials (NORM); neither are regulated by the NRC.

Radiation Control Program

Scope of Program

Between 1990 and 2004, growth areas were registrations in general and laser registrations specifically. This resulted in a change in the share of permits that were licenses or registrations. The percentage of permits that were licenses decreased by 2.9 percentage points; registrations as a whole increased to be 90% of the total permits.

Between 1988 and 2004, these changes occurred:

- total permits increased by 24.6%
- total number of sites increased by 33.2%
- registration permits increased 28.2%
- registration sites increased 39.3%
- registration actions completed annually increased by 36.2% (1990-2003)
- license permits increased by 0%
- license sites increased by 1.5%
- licensing actions completed annually increased 16.2% (1990-2002)

As of 2004, Texas was one of 33 Agreement States. Texas has a large percentage of licenses in the United States (2002) for:

- well logging (32.9%)
- industrial radiography (22.8%)
- irradiators (18.7%)

Staffing

The radiation control staff has increased 1.4% between 1990 and 2004, with a current staff of 140 positions up from 138 (1990). The 1990 report noted that staffing was needed for additional regulatory activities relating to:

- nonionizing radiation
- incident response
- emergency response
- program for generally licensed devices

As of 2004, nonionizing radiation (lasers) and incident and emergency response still demand more staff resources than are available. As a consequence, the registration of lasers is not being actively solicited. Training first responders is being contracted privately. Staff who participate in emergency response exercises spend more time than in years prior to 1990. Responsibilities have increased with transportation of radioactive waste through Texas to the Waste Isolation Pilot Plant (WIPP) in New Mexico, and emergency response exercises with the Pantex Plant and the nuclear utilities. Incident response now includes providing assistance to law enforcement regarding terrorism.

Recruiting and retaining health physicists has continued to be difficult because state salaries have not been competitive with those of the federal and private sectors. Declared a “crisis” in 2004, technical staffing was considered a priority within the department and a 6.8% salary increase was given to technical staff. Efforts are being made to request that the State Classification Officer propose a Health Physicist classification. The radiation program has had continuity in staffing, despite the high turnover rates. In 2004, thirty-four of the 138 staff members from 1990 remain in the radiation program. This core of senior staff members has contributed to the stability of the program despite high turnover rates in the technical staff. However, many of these staff members are eligible to retire in the next five years; some have already retired and returned for undetermined length of employment. As this core staff decreases, unless replacements can be recruited and retained, the future stability of the radiation control program staff is uncertain.

Budget

Radiation Control is funded through an appropriation, partly recovered by fees charged for permits and emergency response exercise expenses paid by the nuclear utilities. In FY 1988, 78.3% of the funds came from fees. In 2004, the program costs related to permits are funded 100% by fees. Other activities are supported by grants and federal contracts: Pantex, Waste Isolation Pilot Plant (WIPP), Mammography Quality Assurance Act, and Radiological Emergency Preparedness.

Organization

Legislative action in 2003 directed the Health and Human Services Commission to combine several agencies into its operations. Since 1981, the radiation control program has been one bureau, divided into licensing and inspection divisions. As of March 2004, organizational charts are being drafted to separate various functions into other units. Because all radiation licensing actions are discretionary in nature and require very specific technical review and analysis, the radiation licensing is to remain together. However, many licensing actions are

done by teams with each member bringing different technical expertise and experience to the review. This requires close coordination with the compliance and inspection technical staff. It is uncertain how this will be accomplished under a new structure. The Radiation Safety Officer in the Compliance program provides personnel monitoring to staff in all programs to assure that radiation doses do not exceed regulatory limits. This must be coordinated. Splitting the Licensing Program from the Compliance and Inspection Program may cause coordination and span of control problems. These organizational issues are being considered at this time.

Significant Changes in Radiation Control

Between 1990 and 2004, significant changes occurred in the scope and responsibilities of the radiation control program. These were of two origins:

1. Legislative changes
 - Disposal of Radioactive Substances, Uranium, Naturally Occurring Radioactive Materials (NORM), Mammography, Surcharges and Administrative Penalties
2. Responses to current trends and conditions
 - Advancements in Medical Technology, Security of Radioactive Materials, Emergency Response, Low-Level Radioactive Waste Storage, General License Program, Financial Security, Industrial Radiography Testing, Public Information, Irradiators, Radioactive Waste Processing, Uranium, Lasers, Dental Regulation, Decontamination of Superfund Sites

Legislative Changes

During the period 1990 – 2004, legislation changed some of the responsibilities for regulation of radiation, making specific assignments to multiple agencies and later returning some responsibilities to the Texas Department of Health (TDH). Responsibility for disposal of radioactive substances transferred to the (currently named) Texas Commission on Environmental Quality (TCEQ) creating a split in uranium regulation between the TCEQ and TDH. Later all uranium regulation was transferred to TCEQ and in 1997, uranium regulation was returned to TDH. Additionally, legislation divided responsibilities for regulation of NORM between agencies. The BRC developed an effective regulatory program for NORM.

In 1994, a program for certification of mammography facilities was implemented as a result of legislative changes. In 1999, TDH was approved by the U.S. Food & Drug administration as an accreditation body for mammography facilities.

In 2001, legislation passed to allow assessment of surcharges to cover the costs that arise when a licensee cannot pay for the safe handling or disposal of radioactive material. Legislation also passed to allow the surcharges and any administrative penalties to be placed in the Radiation Perpetual Care Fund. Rules were adopted to incorporate these changes.

Responses to current trends and conditions since 1990

Response to current trends and conditions since 1990 required additional regulatory efforts in these areas:

- Advancements in Medical Technology – challenging safety and policy issues based on emerging technologies used in medicine
- Security of Radioactive Materials – Homeland Security and radioactive materials accountability; assisting law enforcement as requested
- Emergency Response – Pantex Plant emergency response and environmental monitoring, 4th reactor on-line at nuclear utilities, Waste Isolation Pilot Plant (WIPP) training first responders along travel routes
- Low-Level Radioactive Waste Storage – additional sites of storage to be licensed and inspected
- General License Acknowledgement Program – new program implemented to enhance safety and security of radioactive materials
- Industrial Radiography Testing – contract testing for six other states by 1995
- Public Information – developed and maintaining an Internet Site, conducting regulatory conferences, answering Open Records requests for increasing numbers of pages each year
- Irradiators – food and mail irradiation issues addressed
- Radioactive Waste Processing – licensed first Class III processor in Texas
- Uranium – completed the surface remediation of an inactive mill tailings site in Falls City under a cooperative agreement between the Texas Department of Health and the U.S. Department of Energy; conducted regulatory responsibilities when uranium program returned to department by legislation
- Lasers - totally revised laser rules through a participatory process to address current technologies and hazards; addressed intense pulsed light issues
- Dental Regulation - revised and simplified; implemented dental inspection interval change to eight years with self-inspection every four years
- Financial security – continued financial security determinations with updates and changes to rules for decommissioning
- Decontamination of Superfund Sites - participated in the final decommissioning and decontamination of Gulf Nuclear Sites in Odessa, Webster and Houston in 2003; the facilities and land contaminated with radioactive materials were decontaminated by the U.S. Environmental Protection Agency under their Super Fund Action Removal authority and released at a total cost in excess of \$20 million

Texas Radiation Advisory Board

Legislation has changed TRAB's statutory directives since 1990. Changes to the statute in 1997 added clarifying specifications for some positions and an additional public member, replacing a public safety representative. When the legislature divided responsibilities for regulation of radiation between other agencies, TRAB became advisory to other agencies through Memoranda of Understanding. In 1997, the relationships were adopted by statute.

Administrative rules were added to define TRAB's operations as required by legislation in 2003. HB 2292 abolished advisory committees with exception that applies to the TRAB. The

Board of Health reviewed the TRAB and determined that the advisory board should continue in existence until September 1, 2007, and this was so certified by the Commissioner of Health and Human Services.

In 1990, the TRAB published several recommendations. Of those, these recommendations have yet to be achieved, although they are agreed upon as necessary by the radiation program:

- The State Classification System should establish the health physicist position as an official state job classification. The department is currently considering requesting the State Classification Office consider establishing this job class.
- The BRC should develop an effective, broad-ranging nonionizing radiation source inspection and education program. Lack of funds have prohibited establishing this program; although some progress has been made in this area with the revision of rules and limited registration and inspection program.

One recommendation remains an issue for development:

- Alternatives such as incentive pay, educational stipends and other benefits should be investigated to attract and maintain a staff of qualified health physicists. In April 2004, the department granted a 6.8% salary increase to health physicists; however, this does not make the salary competitive with the private and federal sector salaries.

Concluding Statement from TRAB Chair

While the Texas Radiation Control Program remains among the best in the nation, ultimately the people that make up the program are responsible for its success. In light of that fact, it concerns the TRAB that there are factors currently at play that may ultimately work to undermine that success: the ongoing Health and Human Services Commission reorganization will decentralize the core functions of the BRC and the ability of the BRC to attract and retain qualified personnel through salaries that approach some level of competitiveness with the federal and private sectors.

With the increased scrutiny on radioactive material security and legislatively-directed changes in the administration of the Radiation Control Program, great care should be exercised in ensuring that the BRC can execute the functions that Texans count on the state to perform.

Texas Radiation Control Program Comparative History 1990 - 2004

Data Sources

The Texas Radiation Advisory Board (TRAB) published *Report and Recommendations to the 72nd Legislature on Programs of the State Related to Radiation* in 1990. The report provides information that is being used with 2004 data in a comparison of issues and operational history of the radiation control program.

Scope of Radiation Program

Statutes direct that all sources of radiation be regulated. Since 1963, the Department of Health has operated a regulatory program. The Bureau of Radiation Control (BRC) has operated the regulatory program for all radiation with the exception of disposal of low-level radioactive waste and disposal of NORM. The Governor of Texas entered into an Agreement with the Nuclear Regulatory Commission (NRC) whereby the state assumed responsibility for regulation of radioactive materials with limited exceptions. The State regulatory program also regulates machine-produced radiation (x-ray and laser) and naturally occurring radioactive materials (NORM); neither are regulated by the NRC.

Regulated entities are:

L – licensed radioactive materials

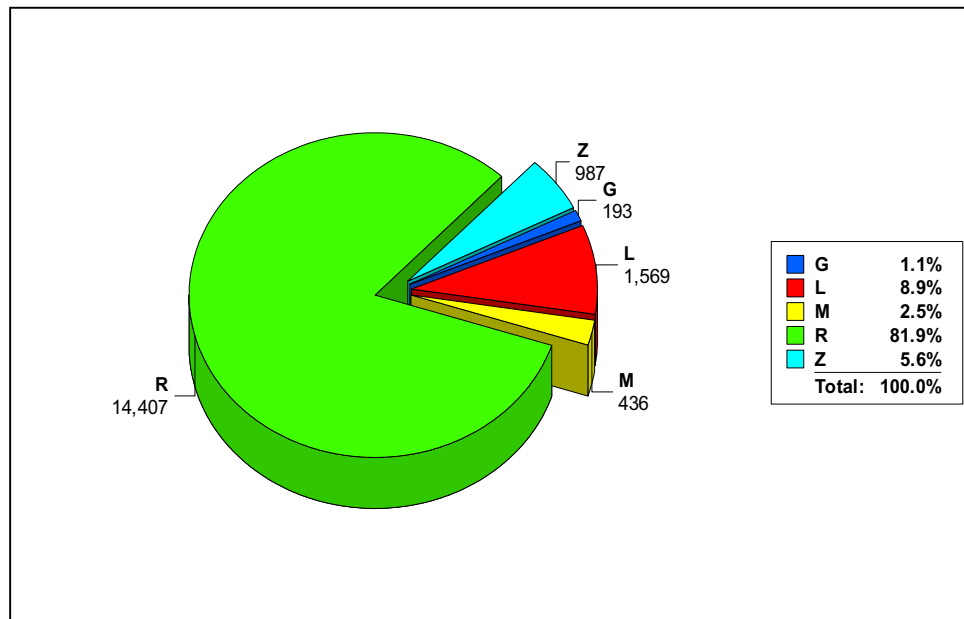
G – generally licensed radioactive materials (certain devices qualify for this type of limited license)

R – registered sources of machine produced radiation except mammography

Z – lasers

M – mammography

Texas Radiation Permits March 2004



Changes in Permits and Actions

Between 1990 and 2004, growth areas were registrations in general and laser registrations specifically. This resulted in a change in the share of permits that were licenses or registrations. The percentage of permits that were licenses decreased by 2.9 percentage points; registrations as a whole increased to be 90% of the total permits.

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Texas Radiation Licenses and Registrations Change In Share of Permits March 2004

Radiation Permits	Percent of Permits		
	1990	2004	Change
L	11.8	8.9	-2.9
GL	1.8	1.1	-0.7
R	83.7	84.4	0.7
Z	2.7	5.6	2.9

Ranking

- As of 2004, Texas was one of 33 Agreement States. The Nuclear Regulatory Commission regulates radioactive materials in the remaining states and retains its authority for certain materials in Agreement States. Texas has a large percentage of licenses in the United States (2002) for:
 - well logging (32.9%)
 - industrial radiography (22.8%)
 - irradiators (18.7%)

**National Ranking
Number of Radiation Permits**

Category – Number of:	National Rank 1987	Percent of National 1987	National Rank of Percent 2003
X-ray permits	1 st	6.9%	
Medical licenses	1 st	10.5%	12.8%
Uranium licenses	1 st		
Industrial licenses	1 st	12.1%	

**Active Licenses: Number of Select Licensees
Agreement States Compared to Texas
December 2002**

Type of License	Number of Agreement States Reporting	Texas Percentage
Manufacturer – Distributor	29	10.9%
Broad	29	10.9%
Industrial Radiography	29	22.8%
Medical	29	12.8%
Irradiators	29	18.7%
Well Logging	29	32.9%
Source Material	28	5.1%
Special Nuclear Material	27	2.1%

Source: Derived from GAO-03-804, *Nuclear Security: Federal and State Action Needed to Improve Security of Sealed Radioactive Sources*, August 2003

Regulatory Responsibilities

Between 1990 and 2004, significant changes occurred in the scope and responsibilities of the radiation control program. These were of two origins:

1. Legislative changes
Disposal of Radioactive Substances, Uranium, Naturally Occurring Radioactive Materials (NORM), Mammography, Surcharges and Administrative Penalties

2. Responses to current trends and conditions
Advancements in Medical Technology, Security of Radioactive Materials, Emergency Response, Low-Level Radioactive Waste Storage, General License Program, Financial Security, Industrial Radiography Testing, Public Information,

Irradiators, Radioactive Waste Processing, Uranium, Lasers, Dental Regulation, Decontamination of Superfund Sites

Legislative Changes

During the period 1990 – 2004, legislation changed some of the responsibilities for regulation of radiation, making specific assignments to multiple agencies and later returning some responsibilities to the Department of Health.

Legislative Changes in Radiation Responsibilities

Year	Legislative Change
1991	72nd LEGISLATIVE SESSION Responsibility for disposal of radioactive substances transferred to Texas Water Resource Commission that became Texas Natural Resource Conservation Commission (TNRCC) Created a split in uranium regulation: Mill tailings - TNRCC In situ - Texas Department of Health (TDH), BRC
1993	73RD LEGISLATIVE SESSION Transferred all uranium regulation to TNRCC Disposal of naturally occurring radioactive materials (NORM) split between two agencies TNRCC (NORM except oil and gas NORM) Texas Railroad Commission (oil and gas NORM)
1997	75 th LEGISLATIVE SESSION Transferred uranium regulation to TDH from TNRCC

Disposal of Radioactive Substances

Responsibility for disposal of radioactive substances transferred to Texas Water Resource Commission that became Texas Natural Resource Conservation Commission (TNRCC), now called the Texas Commission on Environmental Quality (TCEQ).

Uranium

In 1997, the legislature transferred the responsibility for uranium back to the Department of Health. Within six months of this transfer, personnel were hired, inspection forms were drafted and all of the uranium facilities were inspected.

NORM

Legislation divided responsibilities for regulation of NORM between agencies. In 1992, the BRC developed rules for NORM as a result of a cumulative effort with the Texas Water Commission, the Texas Railroad Commission and the Ad Hoc Committee on NORM, consisting of members of radiation control programs of several oil producing states. Rules for possession and processing of NORM created a new classification of licensee and operations to be licensed and inspected by the Department of Health. The TRAB had recommended in 1990 that the BRC should develop an effective regulatory program for NORM.

Mammography

In 1994, a program for certification of mammography facilities was implemented as a result of legislative changes. Rules were adopted requiring mammography facilities to be certified by the state, to have trained personnel and dedicated equipment and to meet strict quality control and equipment standards. Bureau inspectors were required to have special training and certification. In 1999, TDH was approved by the U.S. Food & Drug administration as an accreditation body for mammography facilities. Texas is the fourth state to be approved. This gave mammography facilities in Texas the option of being accredited by TDH or the American College of Radiology.

Surcharges and Administrative Penalties

In 2001, legislation passed to allow assessment of surcharges to cover the costs that arise when a licensee cannot pay for the safe handling or disposal of radioactive material. Legislation also passed to allow the surcharges and any administrative penalties to be placed in the Radiation Perpetual Care Fund. In 2003 the fund was reestablished as the Radiation and Perpetual Care Account. Rules were adopted to incorporate these changes.

Response to current trends and conditions since 1990

Advancements in Medical Technology

Changes in medical technology have created new challenges for both licensing and registration and development of regulatory framework for approval of individual's training and experience, and for operating standards. CT (computed tomography) whole body scanning and other scanning procedures required development of policy. In 2002, in response to numerous advertisements promoting self-referral for CT screening, the TRAB in conjunction with the BRC cautioned the public about the practice of Whole Body CT Screening Examinations. The advisory informed the public that rules require that CT studies

be ordered by a licensed physician and that studies should be based on an individual's medical history. Other noteworthy developments that required development of regulatory policy were positron emission tomography (PET) and the production and distribution of PET radiopharmaceuticals, fusion imaging (combining nuclear and x-ray procedures into one study) and advancements in brachytherapy devices and procedures.

Security of Radioactive Materials

Homeland Security issues developing after the 9-11 attack required significant staff time and effort be directed to security issues being developed at the national level, to public information, to emergency response training and coordination, and to work in consultation with local, state and federal law enforcement officials. "Dirty bomb" concerns and safety issues regarding distribution of KI (potassium iodide) in case of nuclear utility accident received considerable press attention directed toward established policy.

Emergency Response

Emergency response preparation and training increased significantly with the opening of the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico, because shipments of radioactive waste were transported through Texas. On May 9, 2001, the first WIPP shipment of waste traveled through along the IH-20 corridor. The radiation program provided training to first responders along travel routes and local officials received orientations. New demands on radiological emergency response training resources arose post-9-11. Additionally, the 4th utility power reactor began operation; exercises at both nuclear power plants remained a requirement. In October 1996 the BRC achieved a perfect score for an emergency response exercise at the South Texas Project Electric Generating Station (STP), one of two nuclear power plants in Texas. There are 101 nuclear power plants in the continental United States and STP is the only plant to have received perfect scores on emergency response exercises. Additionally, exercises were conducted at the Pantex Plant. The Department of Energy (DOE) and the state of Texas entered into an agreement in principle on July 16, 1990, for the state to oversee DOE efforts in environmental restoration, waste management and emergency planning for Pantex Plant, the nuclear weapons production facility in Amarillo.

Low-Level Radioactive Waste Storage

Because Texas lacked a low-level radioactive waste site (after a license application was denied by the Texas Natural Resource Conservation Commission), Texas waste generators continued to store radioactive waste. Site of storage increased to more than 60 in Texas, requiring monitoring and inspection.

General License Acknowledgement Program

A General License Acknowledgement Program, scheduled as a goal in 1990, was developed to license certain radioactive material devices that qualify for limited regulation. The security and accountability of these sources is maintained through the program. Texas is one of 46.9% of Agreement States validating currency of the General License database more than once per year in order to assure continued accountability of these sources. The TRAB had recommended in 1990 that the BRC should establish an active program for registering and inspecting certain devices that are "generally licensed" or automatically licensed by

regulation under a concept developed by the U.S. Nuclear Regulatory Commission. Without proper control, these devices are being improperly disposed of in landfills and scrap yards.

Financial security

Financial security for decommissioning continued to be a major regulatory issue that continues to require staff time and legal assistance.

Industrial Radiography Testing

Under contract with the Conference of Radiation Control Program Directors, the BRC began providing industrial radiography exams to a total of six states in 1995.

Public Information

Internet Site

In 1996, a BRC Internet site was developed and put "on-line" under the Texas Department of Health's website. Information is available through this electronic media covering the BRC's organization, news items, the TRAB, regulations, job listings, radiography certification, general information on radiation, other radiation related sites, and various items relating to the BRC and radiation topics.

Regulatory Conference

The seventh radiation regulatory conference provided approximately 440 attendees from the regulated community the opportunity to network and receive updated information on the use of radiation in science, health care, and industry in 1998. The two-day conference focused on changes to regulating radiation in Texas as a result of state legislative actions, federal mandates, and other radiation issues demanding regulatory attention. The meeting was held in conjunction with the South Texas Chapter of the Health Physics Society's annual vendors exhibit. In addition to the information presented in the concurrent topic sessions, regulatory staff were available to discuss individuals' specific issues and concerns at the displays that were developed on a variety of radiation topics. The BRC has coordinated and participated in similar conferences held in 1985, 1988, 1990, 1992, 1994 and 1996. In 1999, in response to feedback from the previous regulatory conference, BRC initiated the presentation of topical workshops that focused on single issues instead of a regulatory conference of broad scope. Three such workshops were presented in 1999, on the topics of NORM, Mammography and Industrial Radiography.

Public Requests for Open Records

Public requests for Open Records increased dramatically between 1991–2004. Not only did the number of requests increase 715.3%, the number of pages requested increased also by 10,276%. [The largest request over a three-month period ending in July 2002 involved a total of 18, 603 pages. The cost to the requestor was \\$3,160.80.](#)

**Public Requests for Open Records
1991-2002**

Year	Number of Requests	Number of Pages
1991	144	Avg. 2/request
1996	339	28,996
2002	1174	44,824

1991 page numbers estimated

**Percentage Increases in Open Records
1991-2002**

Increase in Requests	Increase in Pages
715.3%	10,276%

Irradiators

In June 1996 the BRC cosponsored a Food Irradiation Conference with the Bureau of Food & Drug Safety and Texas A&M University. Increased interest in food irradiation, as well as irradiation of mail due to concerns over bioterrorism, brought increased program activity. In 1998, the TRAB published recommendations in *Food Irradiation: The Potential for Texas*.

Radioactive Waste Processing

In 1997, the first Class III waste processing license was issued to a facility in Andrews County. This license required technical assessments of geology, engineering, socioeconomics, hydrology, health physics evaluation of operations and safety procedures, and evaluation of financial assurance.

Uranium

In 1994, the surface remediation of an inactive mill tailings site in Falls City was completed under a cooperative agreement between the Texas Department of Health and the U.S. Department of Energy. Approximately three million cubic yards of tailings were consolidated and covered, and contaminated soils were removed from surrounding areas. The site of the surface impoundment containing uranium tailings remediated under UMTRA Title I at Falls City was deeded to the federal government in May 1997. In 1999, legislation was passed that allowed TDH to sell land that had been remediated under the DOE UMTRA agreement. The General Land Office will facilitate the sale of that property.

Lasers

In 1998, BRC completed totally revised laser rules through a participatory process to address current technologies and hazards. Intense pulsed light sources were addressed.

Dental Regulation

BRC revised and simplified its dental regulatory program in 2000 to include all dental rules in one section with easily understood rule explanations along side the rule language. Dental inspection intervals changed to eight years with self-inspection every four years.

Decontamination of Superfund Sites

In 2003, the radiation program participated in the final decommissioning and decontamination of Gulf Nuclear Sites in Odessa, Webster and Houston. The company had officially abandoned the sites through bankruptcy in 2001. Declared Superfund Sites, the facilities and land contaminated with radioactive materials were cleaned and released at a total cost in excess of \$20 million.

Staff

Number of Staff

The radiation control staff has increased 1.4% between 1990 and 2004, with a current staff of 140 positions up from 138 (1990). During 1986 - 1987, reductions in staffing were necessary due to budgetary constraints. Staffing levels were raised in 1988 and returned to previous levels in 1990.

The 1990 TRAB report noted that staffing was needed for additional regulatory activities relating to:

- nonionizing radiation
- incident response
- emergency response
- program for generally licensed devices

As of 2004, nonionizing radiation (lasers) and incident and emergency response still demand more staff resources than are available. As a consequence, the registration of lasers is not being actively solicited. Training first responders is being contracted privately. Staff who participate in emergency response exercises spend more time than in years prior to 1990. Responsibilities have increased with transportation of radioactive waste through Texas to the Waste Isolation Pilot Plant (WIPP) in New Mexico, and emergency response exercises with the Pantex Plant and the nuclear utilities. Incident response now includes providing assistance to law enforcement regarding terrorism.

Recruitment and Retention

Recruiting and retaining health physicists has continued to be difficult because state salaries have not been competitive with those of the federal and private sectors. Health physicists, highly qualified individuals, knowledgeable about radiation, its biological and environmental effects and its regulation are in short supply and the demand for their services is increasing nationwide. There is chronic and considerable turnover. There are few opportunities for

promotion within the bureau and very limited career ladders. Also lacking is the flexibility to award merit raises and lump sum awards due to internal policies and lack of funding. Declared a “crisis” in 2004, technical staffing was considered a priority within the department and a 6.8% salary increase was given to technical staff. Efforts are being made to request that the State Classification Officer propose a Health Physicist classification. The department hopes it may help to attract qualified candidates.

Stability

The radiation program has had continuity in staffing, despite the high turnover rates. In 2004, thirty-four of the 138 staff members from 1990 remain in the radiation program. This core of senior staff members has contributed to the stability of the program despite high turnover rates in the technical staff. However, many of these staff members are eligible to retire in the next five years; some have already retired and returned for undetermined length of employment. As this core staff decreases, unless replacements can be recruited and retained, the future stability of the radiation control program staff is uncertain.

Organization

Legislative action in 2003 directed the Health and Human Services Commission to combine several agencies into its operations. The organization is to be designed along functional lines. The radiation regulatory program has been a cohesive unit for past forty years. Since 1981, the radiation control program has been one bureau, divided into licensing and inspection divisions. As of March 2004, organizational charts are being drafted to separate various functions into other units. Because all radiation licensing actions are discretionary in nature and require very specific technical review and analysis, the radiation licensing is to remain together. However, many licensing actions are done by teams with each member bringing different technical expertise and experience to the review. This requires close coordination with the compliance and inspection technical staff. It is uncertain how this will be accomplished under a new structure. The Radiation Safety Officer in the Compliance program provides personnel monitoring to staff in all programs to assure that radiation doses do not exceed regulatory limits. This must be coordinated. Splitting the Licensing Program from the Compliance and Inspection Program may cause coordination and span of control problems. These organizational issues are being considered at this time. Public comment brought out prominent themes about the proposed organizational structures:

- Inadequate detail in the charts to comment or identify programs and services; related to this was the significant concern regarding the continuity of existing programs.
- Concern that the separation of licensing from regulation will reduce program effectiveness.
- Program specific concerns regarding changes to the current structure for Radiation Control over preventing the program from being eroded or fragmented as a result of reorganization.

Budget

Radiation Control is funded through an appropriation which is recovered by fees charged for permits and emergency response exercise expenses paid by the nuclear utilities. In FY 1988, 78.3% of the funds came from fees. In 2004, the program is funded 100% by fees and Federal grants and contracts.

Year	Budget	Percent Change
FY 91	\$5,138,616	
Calendar Yr 2002	\$7,411,476	44.2%

Source of Funds FY 1988

Non-fee Revenue	1.9%
Fee Revenue	78.3%
General Revenue	19.8%

Texas Radiation Advisory Board

Legislation has changed TRAB's statutory directive since 1990. Changes to the statute in 1997 added clarifying specifications for some positions and an additional public member, replacing a public safety representative. When the legislature divided responsibilities for regulation of radiation between other agencies, TRAB became advisory to other agencies through Memoranda of Understanding. In 1997, the relationships were adopted by statute.

Changes to TRAB statutes indicate how the Texas Legislature has redefined TRAB to provide the additional expertise all agencies needed as the use of radiation expanded in medicine and industry. Administrative rules were added to define TRAB's operations as required by legislation in 2003. HB 2292 SECTION 2.151 (2003) abolished advisory committees with exception that applies to TRAB. TRAB was reviewed by the Board of Health and it was determined that the board should continue in existence until September 1, 2007, and was so certified by the Commissioner of Health and Human Services.

In 1990, the TRAB published several recommendations. Of those, these recommendations have yet to be achieved, although they are agreed upon as necessary by the radiation program:

- The State Classification System should establish the health physicist position as an official state job classification. The department is currently considering requesting the State Classification Office consider establishing this job class.

- The BRC should develop an effective, broad-ranging nonionizing radiation source inspection and education program. Lack of funds have prohibited establishing this program; although some progress has been made in this area with the revision of rules and limited registration and inspection program.

One recommendation remains an issue for development:

- Alternatives such as incentive pay, educational stipends and other benefits should be investigated to attract and maintain a staff of qualified health physicists. In April 2004, the department granted a 6.8% salary increase to health physicists; however, this does not make the salary competitive with the private and federal sector salaries.

Concluding Statement from TRAB Chair

While the Texas Radiation Control Program remains among the best in the nation, ultimately the people that make up the program are responsible for its success. In light of that fact, it concerns the TRAB that there are factors currently at play that may ultimately work to undermine that success: the ongoing Health and Human Services Commission reorganization will decentralize the core functions of the BRC and the ability of the BRC to attract and retain qualified personnel through salaries that approach some level of competitiveness with the federal and private sectors.

With the increased scrutiny on radioactive material security and legislatively-directed changes in the administration of the Radiation Control Program, great care should be exercised in ensuring that the BRC can execute the functions that Texans count on the state to perform.