NATIONAL GOVERNORS' ASSOCIATION

WASHINGTON, DC

An Examination of the Agreement State Program

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INTRODUCTION

States have long been involved in regulating radiation hazards as part of their traditional responsibilities to protect the public health and safety. State control of x-rays and radium sources began about fifty years ago. With the advent of nuclear fission and the subsequent development of nuclear power and other commercial uses of radioactive materials, Congress charged the Atomic Energy Commission — succeeded by the Nuclear Regulatory Commission — with developing and implementing a regulatory program to protect public health and safety against certain radiation hazards. Federal national standards governing radiation exposure were subsequently established. States maintained their existing radiation control programs and, as the commercial uses of radioactive materials became more common, requested Congress to provide an expanded role for the states in the regulation of radioactive materials.

In 1959, Congress amended the Atomic Energy Act of 1954 to permit states that met and maintained certain standards to regulate source, by-product and limited quantities of special nuclear materials in place of the federal government. The program, authorized under Section 274(b), is known as the Agreement State Program (ASP). An NRC background statement briefly describing the program is included as Appendix A.

Since many states had been actively engaged in promoting passage of the Section 274, a number of them applied for Agreement State status in the years immediately following adoption of the law. In the first decade of its existence, twenty-two states joined the program. Only four have joined in the past thirteen years. The reasons for the decline in applications will be discussed later in this report. Four states are currently investigating Agreement State status. A list of current Agreement States is included as Appendix B.

Through the Agreement State Program and such organizations as the Conference of Radiation Control Program Directors, Inc. states have exerted influence on Congress and the Nuclear Regulatory Commission, leading to periodic changes in regulations and practices involving radiation protection.

In the fall of 1979, two of the three operating commercial low level radioactive waste sites in the nation were temporarily closed due to violations of packaging and shipping regulations by commercial generators. As a consequence, Congress adopted in December of 1980 the Low Level Radioactive Waste Policy Act (PL 96-573), which delegates to each state the responsibility for disposing of the commercial low level waste generated within its borders. The act endorses regional compacts as the preferred means of securing additional disposal capacity and authorizes compacts to exclude waste generated outside their states' borders after January 1, 1986.

A recurrent issue in most regional compact negotiations has been how regulatory jurisdiction will be distributed between the federal government and the regions and between

Agreement and non-Agreement states. In the interest of further assisting the negotiation of regional compacts, the National Governors' Association proposed to review the Agreement State Program, with particular emphasis on changes in the program which might be required by the passage of the low level waste act or other legislation such as the Uranium Mill Tailings Radiation Control Act. Subsequent discussions with states and the Nuclear Regulatory Commission revealed a need for and an interest in a full-scale evaluation of the Agreement State Program including, but not limited to, the low level waste and mill tailings issues. In September 1981, the National Governors' Association undertook for the Nuclear Regulatory Commission a comprehensive review of the history, structure, funding mechanisms, training programs, and review and inspection procedures of the Agreement State Program. The objectives of the review included development of recommendations on (1) long-term goals for the Agreement State Program, (2) alterations in the present program to provide assurance those goals will be met and (3) how those goals can be met. The following report contains the findings and recommendations of that review.

The intention of the NGA was to solicit the views of those most familiar with and most affected by the Agreement State Program: the state radiation control program directors and representatives of those subject to and affected by regulation, either by state agencies or by the Nuclear Regulatory Commission. With these two goals in mind, the Governors' Association proceeded as follows:

- The broad areas of inquiry were agreed upon between NGA and the Office of State Programs of the Nuclear Regulatory Commission.
- Two draft questionnaires – one for Agreement States, one for non-Agreement States – were drawn up. The specific questions were reviewed by the Nuclear Regulatory Commission staff, the Conference of State Radiation Control Program Directors and a task force composed of the National Governors' Association Subcommittee on Nuclear Power and other members (for membership, see Appendix C). Changes and additions suggested by these groups were incorporated, and the questionnaires were mailed to the radiation control program director of each state on May 27, 1982 (for copies of the questionnaires, see Appendix D). Responses to the questionnaires were compiled for review by the two advisory committees (for membership, see Appendix E) and for use in preparing the final report.
- Four Agreement States – Florida, New York, Texas and Washington – were selected for detailed management case studies. These states represent a cross section of ASP-members in terms of region, size and scope of the radiation program, and number and type of licensees. Particular attention in these studies was directed at the organizational and funding arrangements in each state.

- Two advisory committees, composed of representatives of constituencies subject to or affected by regulation by states or by the Nuclear Regulatory Commission, were convened. The committees met in public meetings in Boston on October 8, 1982 and in Denver on October 21, 1982. These advisory committees were given a summary of the responses obtained from the questionnaires sent to the fifty states and, with this background, were asked to discuss their views of the ASP.
- A draft final report – incorporating the views of the fifty states, the National Governors' Association Agreement State Task Force and the advisory committees — was prepared. It was reviewed by all these groups, and their comments were considered in the preparation of this final report.
- The Nuclear Regulatory Commission staff plans to announce availability of the report in the Federal Register and invite public comment.

This report constitutes the first comprehensive outside review of the Agreement State Program since its inception more than twenty years ago. The National Governors' Association appreciates the cooperation it has received from all parties connected with this endeavor the Nuclear Regulatory Commission staff, especially the Office of State Programs, the NGA Task Force, the state radiation control program directors whose thorough and candid responses to our questionnaires provide the substance of this report, and members of the advisory committees whose incisive comments have added an invaluable dimension to this study.

The Agreement State Program represents an early effort to forge a state/federal partnership in the field of radiation protection. It remains a model example of institutional cooperation. This study by a state organization of a federal program signifies the continuing vitality of the venture. The National Governors' Association is confident that this report will contribute to improved public health and safety and will further strengthen the state and federal bonds in the field of radiation protection and control.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Findings

- The Agreement State Program is one of the most successful state/federal partnerships yet established in terms of 1) the flexibility provided states in assuming regulatory responsibility, 2) successful state performance of regulatory duties and 3) consultation with states in the preparation of new regulations.
- The decline in the rate at which states have joined the Agreement State Program is largely a result of the costs associated with assuming and maintaining membership.
- Passage of the Low Level Waste Policy Act has engendered renewed interest in Agreement State Program membership.

- The necessity of meeting NRC review criteria sometimes directs state resources towards those areas on which they will be judged by NRC and away from what states consider more pressing problems.
- Repeated nuclear power plant emergency response exercises are consuming a vast amount of state staff time to the detriment of other state radiation protection programs.
- Most state radiation control programs are consolidated in one agency whether Agreement State and non-Agreement State.
- There is no strict correlation between the performance of a state radiation control program and its position within the state's organizational structure. There appears to be advantages to a higher position within an agency in terms of access to funding, higher ceilings on personnel salaries and the ability to draw on a larger pool of state personnel in an emergency.
- States continue to have problems retaining qualified personnel when extreme salary differences between state and industry or academic employment exist. This problem is exacerbated when state personnel have received advanced training (usually at NRC-sponsored courses). An NRC survey indicated that, over a three-year period, of sixty-seven state personnel who attended the 10-week health physics course, twenty-two left state service within a three-year period. Of those who left, 70 percent did so in the first year.
- Half of all Agreement States currently rely on user fees to pay for a portion of their radiation control programs, with several states having adopted new or expanded user fees in 1982. Nearly two-thirds of Agreement States possess legislative authority to collect such fees. The Agreement State Program typically utilizes a quarter to a third of a state's radiation protection budget. However, significant variations in the percentage of the total state radiation control budget devoted to the Agreement State Program exist, whatever the size of the program. The institution of user fees by additional states may be anticipated in the near future.
- While the flexibility of a partial agreement to regulate only a low-level radioactive waste disposal site is appreciated, most states prefer a more comprehensive A[illegible]P status. Few of the Agreement States would relinquish the authority they currently possess, and only one of the states presently considering ASP status had considered regulatory authority only for regulating a waste site.
- Although legislation addressing mill tailings and low level waste disposal legislation has been adopted subsequent to the passage of the Agreement State Program, no

changes in the Agreement State Program with respect to these areas are recommended.

- Nearly all state officials and advisory committee members felt that a state that hosts a low level waste disposal facility is likely to seek Agreement State membership. It was agreed, however, that such memberships should not be mandatory.
- NRC's periodic reviews of Agreement States' performance are considered to be thorough and accurate. State radiation program staffs found the observations by NRC staff to be generally constructive in improving state performance.
- NRC performance in non-Agreement States was judged positively, though some states suggested that on-site inspections of NRC materials licensees could be more frequent. NRC inspection staff are highly thought of, but delays in responses by NRC staff to license applications and correspondence were noted.
- While states and licensees have had limited experience to date with decentralization of NRC programs, including the ASP, the response so far is positive. NRC licensees expressed hopes that having NRC staff closer to the facilities they regulate and license will speed up the process. Some states questioned whether regional offices would possess the broad expertise of the national office.

General Recommendations Relating to the Agreement State Program Goals

- The Agreement State Program should be continued and expanded to include more states.
- The present NRC guidelines for evaluating Agreement State programs are considered adequate and offer the proper degree of flexibility in reviewing state programs for adequacy and compatibility. Any proposed changes in the present system should be thoroughly discussed with the states.
- Authority for NRC to provide federal assistance in the form of seed money to help states cover the initial costs of assuming Agreement State status should be provided by Congress.
- The Atomic Energy Act should be amended to authorize the regulation of radioactive materials not presently affected by the act, that is, naturally occurring and accelerator-produced radioactive material (NARM).
- Additional training courses for the Agreement States are needed to help states effectively manage new and changing regulatory programs. The NRC training program for Agreement States should receive additional funding to keep pace with those needs.
- The current system of requiring that Agreement State regulations be compatible with NRC standards should be continued. Insistence that state regulations be identical to federal standards might cause some states to leave the ASP.

- Radiation protection programs should be at least comparable in level to other state health and environmental protection programs within the state organizational structure.
- In instances of licensing complex or large licensees where a state may lack the necessary expertise or requisite number of personnel, NRC should continue to make staff and technical assistance available on a temporary, supplemental basis.
- NRC should revise its licensing and inspection fees frequently enough to keep pace with rising costs and thus help avoid apparent disparities developing between state and federal fee schedules. State user fees are encouraged as a means for improving the fiscal base for state radiation control programs.

Recommendations Relating to Specific Issues and Concerns

- The states strongly endorse implementing a procedure whereby the NRC's materials regulatory program will be subjected to a systematic performance review using guidelines similar to those used for review of Agreement State programs.
- The frequency of emergency response exercises at nuclear power plants should be reduced. States that establish satisfactory performance records should be given a longer time between exercises.
- While the ten-week health physics training course sponsored by NRC should be retained, a five-week course should be developed in consultation with state personnel.
- States and advisory committee members endorse the establishment of a certification or testing program to examine the competence of industrial radiographers in radiation safety. The program should assure that each individual radiographer has received prescribed training in radiation safety principles and procedures.

CHAPTER I

MEMBERSHIP

Twenty-six states are currently members of the Agreement State Program. Kentucky was the first state to join in March 1962. Rhode Island is the most recent member, having joined in January 1980. As noted in the introduction, the vast majority of current members – 22 – joined within a decade of the program's creation in 1959. Only four states have obtained membership in the past thirteen years.

The annual costs of maintaining Agreement State status, the increasing cost of obtaining the personnel and equipment necessary to qualify initially for the program, state legislative opposition based principally on fiscal considerations and the fact that those states which first promoted the program have already joined help explain the decline in the rate at which states have sought Agreement State status.

Most Agreement States negotiated with the Atomic Energy Commission or the Nuclear Regulatory Commission within a year after receiving legislative authorization to pursue such agreements. As noted above, legislative opposition based largely on fiscal concerns has prevented some states from seeking Agreement State status. But more recently, legislative branch inaction has not been the only impediment to gaining Agreement State Program status. Fourteen non-Agreement State Program states, more than one-half of non-members, indicated that while their legislatures had adopted legislation authorizing Agreement State Program membership, executive branch inaction or opposition has been a decisive factor.

Ten non-Agreement states reported that they currently lack authorizing legislation. Four Non-Agreement State Program members are, at present, discussing Agreement State status.[1]

Reasons for Seeking Agreement State Status

Twelve Agreement States cited improved and localized control as the reason for assuming Agreement State status. The desire for a comprehensive rad[illegible] health program and for single agency regulation of radioactive materials and other [illegible]urces were specifically cited by several states. An interest in exercising greater [illegible]utonomy was reflected in additional comments indicating that 1) becoming an Agreement State was adopting a "states' rights" position and 2) the enforcement of state regulations compatible with federal standards would be less onerous on industry in terms of delays and paperwork than federal enforcement of federal regulations.

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1 Iowa, Oklahoma, Pennsylvania, Utah are discussing ASP-status with the NRC. All but Iowa have adopted legislation authorizing Agreement State membership. Utah's Governor Scott Matheson has formally requested a Section 274b Agreement.

The cost effectiveness or financial benefits of the ASP were mentioned by several states. Two states indicated that, in the past, becoming an Agreement State attracted more nuclear-based industry to the state, and two other states mentioned that industry had encouraged Agreement State Program status. The advantages to industry of dealing with an Agreement State – immediate access to regulators, more rapid responses to inquiries and familiarity of state staff with local circumstances – could induce a state to join the program to attract new industry.

That industry has a preference for dealing with Agreement States was confirmed in discussions with the advisory groups, whose industry members indicated that they found Agreement State staff more accessible and more familiar with local circumstances than the Nuclear Regulatory Commission. On the other hand, industry representatives expressed reservations about the Agreement State Program in terms of differing regulatory and enforcement practices.

Representatives of environmental groups, while not expressing a preference for either the Nuclear Regulatory Commission or Agreement State regulation of radiation sources, did not contend that non-federal regulation led to states weakening regulations or easing enforcement against local industries.

Reasons for Not Joining the Agreement State Program

Over half of the non-Agreement state respondents indicated that absence of sufficient fiscal resources was the reason for their not joining the Agreement State Program. Two other states claimed the benefits of the Agreement State Program were not compelling for them, and three cited inadequate numbers of personnel. Six states mentioned the lack of legislative interest or authority, but these factors were related to the other reasons cited above. Two states mentioned that since the Nuclear Regulatory Commission already regulates their licensees at no charge to the states, they have not joined. Four states are discussing Agreement State Program status with NRC. Five states said that funding will not affect their decision. Estimates by non-ASP states of the increased costs associated with becoming an Agreement State varied, but eighteen states expect to spend more than they do on their current program. Some of the projected increased costs ranged from $30,000 to $50,000 (4); $50,000 to $200,000 (9); and $200,000 to $500,000 (3).

Future Membership

Discussions among the National Governors' Association Task Force and the advisory committees indicate that the primary reasons for joining the Agreement State Program have changed since the program was initiated. The desire to build a comprehensive program, to attract industry or to exercise "states' rights" were more compelling in years just following creation of the program. Increasing costs, optional or mandatory state enforcement of a number

of other complex and expensive federal environmental statutes, and the fact that the growth of industries requiring radioactive material licenses has been largely confined to those states that are already Agreement States have contributed to the dramatic reduction in the rate of states seeking Agreement State status during the past decade.

New factors, however, are generating a revived interest in the Agreement State Program. Passage of the Low Level Waste Policy Act has, more than any other single recent event, induced states to explore Agreement State Program status. Within the past year, four states have approached the Nuclear Regulatory Commission about Agreement State Program status, and several others have expressed interest because of responsibilities that attend implementation of the Low Level Waste Policy Act.

The 1977 Nuclear Regulatory Commission report on the Agreement State Program[2] recommended that the commission work "toward the goal of having the vast majority of materials licenses issued and regulated by the States by the end of the 1980s; an increase in the number of Agreement States would be a major step toward the goal."[3] Yet the regulation of a vast majority of material licenses by Agreement States is a Nuclear Regulatory Commission staff, rather than a state goal. It has little bearing on the present concerns of states that might join the Agreement State Program. If the Nuclear Regulatory Commission's goal remains devolving more material licenses, then those current non-Agreement State Program states where the largest numbers of material licenses are located should be targeted for Agreement State Program membership. But those states do not completely correlate with states currently seeking membership. It should also be noted that the graph of Material Licenses in Effect (figure 1) demonstrates that the number of materials licenses regulated by Agreement States has doubled in the last decade to 60 percent of the total, even though few Agreement States have been added.

The above observations suggest that although the structure of the Agreement State Program has not changed, the goals and purposes of states who are members or who are seeking membership may be shifting because of increasing state responsibilities and growing public interest in radiation control matters.

Nineteen of the twenty-four non-Agreement states mentioned financial assistance as necessary to induce their interest in membership. Nine states cited expanded training opportunities for state personnel, although training was usually coupled with the financial request. An improvement in radiation protection through Agreement State Program membership

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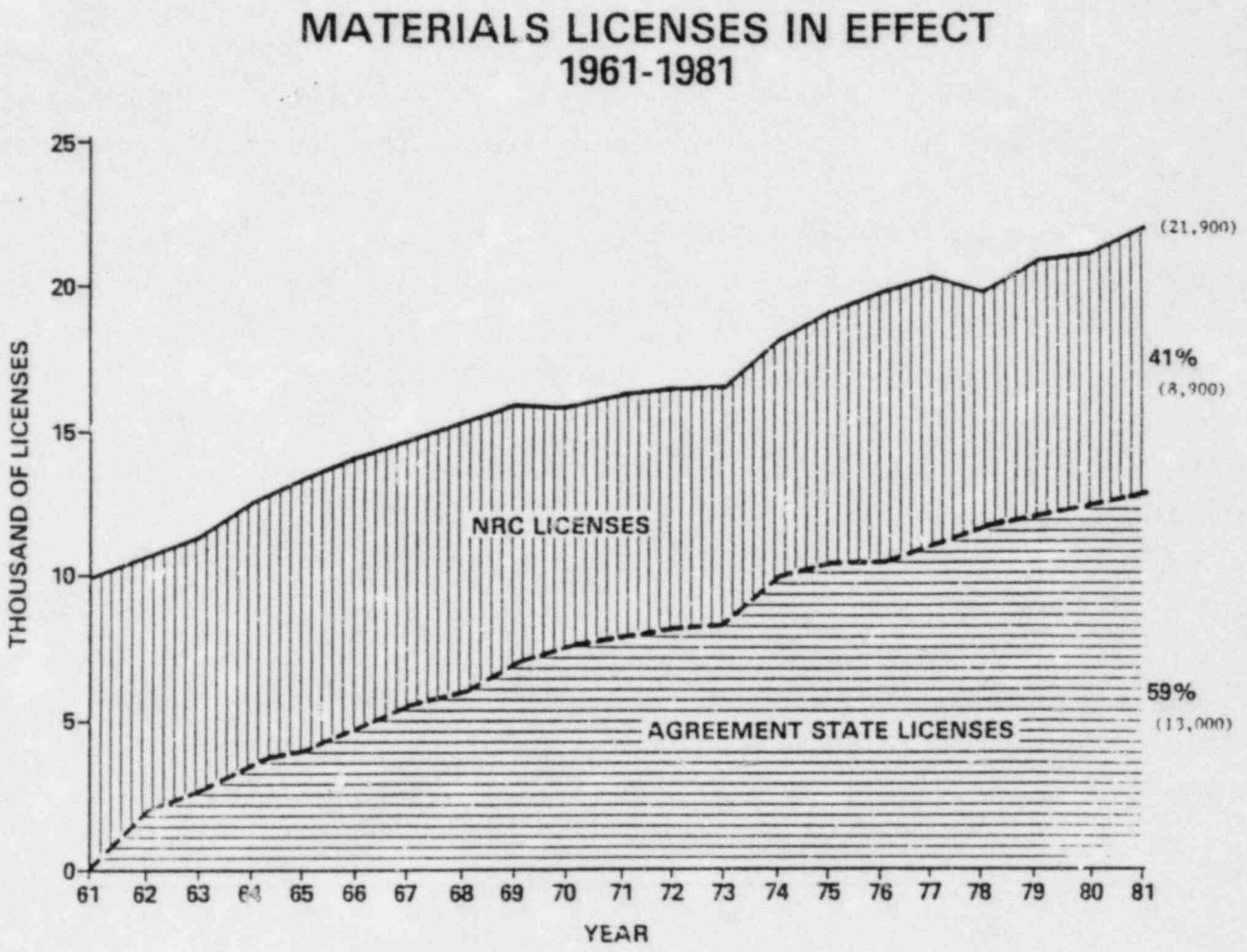
2 Final Task Force Reports on the Agreement State Program, NUREG-0388, Office of State Programs, Nuclear Regulatory Commission, December 1977, Washington, D.C. 20555.

3 Ibid, p. 1-3.

was cited by four states as a factor in their decision, but financial assistance would probably also have to be provided.

FIGURE 1



The 1977 Nuclear Regulatory Commission report recommended the authorization by Congress of $5 million as seed money to assist states seeking Agreement State status.[4,5] The provision of any federal money to states under the Agreement State Program provoked considerable discussion as to purpose, amount, and method of distribution. It is clear, however, given the fact that half the non-member states indicated money was a factor in their not joining the Agreement State Program, the availability of federal funds could lead to additional interest in the program. The Nuclear Regulatory Commission may wish to evaluate 1) its objective in adding new members, 2) which states it would target, 3) the reasons states are currently seeking or not seeking membership and 4) the amount of and method of distribution of funds needed to achieve its purposes.

Reasons for Leaving the Agreement State Program

All but two of the Agreement States indicated they had never considered leaving the program. There are, however, circumstances in which even ardent current members could consider withdrawing from the program. Predictably, for half the states, absence of adequate funding at the state level was the first reason. Four states indicated they would withdraw if state regulations had to be identical to those of the Nuclear Regulatory Commission. This last point was also emphasized by state personnel in the advisory committee meetings.

Four states said they would relinquish the Agreement State Program if they could not justify the effort on the basis of health and safety. Loss of key personnel coupled with increased workload were also cited by several states. Single states mentioned lack of support from those being regulated and the institution by NRC of more stringent review criteria requiring increased staffing levels as reasons for leaving. Another state recounted that it had considered leaving on two occasions: first, when serious deficiencies were noted in their program by the NRC staff and it was unsure if it could correct them and second, when it encountered intense industry pressure because its fee structure exceeded that of the Nuclear Regulatory Commission.

Advantages of the Agreement State Program

Two-thirds of the Agreement States cited 1) local control and responsiveness to citizens and 2) the opportunity to better serve and monitor licensees as the primary advantages of the Agreement State Program. Half of the ASP respondents also mentioned the opportunity for a

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4 Ibid, p. 2-8.

5 The Uranium Mill Tailings Radiation Control Act of 1978, in addition to establishing additional criteria to be met by Agreement States wishing to regulate mill tailings also authorized $500,000 in grants to Agreement States to aid in the development of State regulatory programs to implement the requirements of the Act. These funds were a key factor in enabling Texas, Colorado and Washington to amend their agreements in conformance with the act. (The New Mexico amendment is being negotiated.)

completely centralized radiation control program, including sources of radiation not regulated by the NRC. Other advantages cited by states included:

- fast and effective state response to emergencies
- full control over a low level waste disposal facility
- enhancement of the state's standing with the nuclear industry
- better radiation control in non-Agreement State program areas.

Two-thirds of the non-Agreement State Program states also saw advantages to the Agreement State Program. Better control over licensees and better radiological protection were cited by nine states. Other states listed staff training opportunities, better potential handling of emergency situations and the opportunity to consolidate licensing functions as advantages of joining the Agreement State Program. Six states respondents saw no advantages of joining.

These perceived advantages were confirmed by discussions with the advisory committees. The proximity of licensing and inspection staff to the facilities they regulate offers a host of benefits. Responses to verbal and written inquiries are generally more rapid than with NRC. Staff is more accessible for consultation on such matters as regulatory compliance, inspections are more frequent, and state staff is familiar with local issues and recognize the practices and expertise of local facilities and industries.

The flexibility of a state-run program plus the perception of state personnel as less "hidebound" were both attractive features of the ASP for commercial and institutional operators. It should be emphasized that no commercial or institutional operators of those consulted viewed the flexibility of the Agreement State Program and staff as involving a compromise in radiation protection. Those who are regulated, rather, find it easier to abide by and comply with regulations when the enforcement personnel are readily available.

States and the advisory committees also felt that the credibility of state personnel was a distinct advantage, especially in emergencies. Even in non-Agreement States, however, the highway patrol or the state's emergency response team is often the first to reach the scene of the accident. Several Agreement State directors noted that in emergencies the Nuclear Regulatory Commission staff is usually available and helpful when needed.

Disadvantages of the Agreement State Program

The added costs of assuming regulatory responsibility were cited as a disadvantage by nearly half the Agreement States responding. In addition, several state directors remarked that the periodic review of state program performance by the Nuclear Regulatory Commission obliged them to devote more staff and money to Agreement State requirements than to areas such as more frequent x-ray inspections or transportation emergency response capability which they felt should receive greater attention in terms of protecting the public health and safety. Similarly, the compatibility requirements were criticized as "unbalancing" state programs. Some

states felt that the need to maintain national compatibility has skewed state program emphasis away from the most pressing problems. Another state added that the Nuclear Regulatory Commission did not allow it sufficient flexibility to respond to a local situation. Only one state cited the absence of uniformity among Agreement State Program states as a problem.

The extent to which federal standards impinge on state priorities was the subject of sustained attention by the NGA's Nuclear Power Subcommittee, the Advisory Committees and the annual meeting of the Agreement States in October, 1982. The single greatest irritant appears to be the requirement for numerous or multiple emergency response exercises at nuclear power plants. Such requirements can apply to Agreement and non-Agreement states alike. According to all sources, they are having a severe and deleterious impact on the implementation of other aspects of a state's radiation protection program which provide substantial protection to the public. No one argued that exercises are not required, and few argued they are not useful. An Agreement State director observed, however, that the exercises should be designed less to test a state's ability to meet a predetermined checklist and more to gauge staff capacity to readily adjust to the situation at hand — a capacity required in most emergencies.

The emergency exercises are viewed as "costly and time-consuming." They detract from states' abilities to devote staff to other pressing radiation protection needs. One program manager estimated that 40 percent of his staff time is occupied with emergency response exercises. States suggest the following remedies:

- the frequency of exercises should be reduced
- states whose previous exercise performance was satisfactory should be given a longer grace period between exercises and
- the federal government should cover some of the costs of emergency response exercises and should provide staff assistance to states during exercises.

State and industry personnel also acknowledged that NRC's Agreement State Program guidelines skewed state program emphasis. A medical physicist cited a reduction in the frequency of the inspection of x-ray machines in his state, and an Agreement State director acknowledged that a state license fee structure can result in focusing state attention on those who pay, leading to less frequent inspection of other, non-paying users of radiation sources not subject to licensing.

Another disadvantage of the Agreement State Program raised by regulated entities was the variation in regulations between Agreement and non-Agreement states. One problem involved the irregular pace at which Agreement State Program members adopt new NRC regulations. Once the Nuclear Regulatory Commission has published a new final rule, it immediately applies in all non-Agreement State Program states. Agreement States, however, must individually incorporate the new rule administratively and legislatively, which can take several years. Of

perhaps more concern to industry than differing state regulations were dissimilar penalties and enforcement. Fines and penalties for similar infractions vary from state to state as does the vigor of enforcement. Industry recommended greater uniformity be provided in these areas.

A final disadvantage of the Agreement State Program that was cited by industry is that a few state programs may lack the expertise or sufficient personnel to handle some types of licences. Variations in licenses among states and evidence that states lack personnel adequate for some tasks are problems that while rare, cause industry and environmentalists concern. Both industry and public interest groups suggested that the Nuclear Regulatory Commission augment its program of making expert assistance available to states in special cases.

CHAPTER II

INTERNAL ORGANIZATION OF AGREEMENT STATE PROGRAMS

Most Agreement States have radiation protection programs that are consolidated in one agency. The vast majority of non-Agreement States characterized their programs as consolidated. Only five respondents indicated that their programs were distributed among several agencies.

Commercial representatives on the advisory committees emphasized their preference for consolidated programs in both Agreement and non-Agreement states. They repeatedly cited the problems that they had encountered in the past with fragmented state jurisdictions. Some members expressed fears that the low level waste compacts could create a new layer of bureaucracy in the compact commissions and could fragment state or regional authority.

No conclusive evidence establishes any direct correlation between the status of radiation protection program within a state organization and its performance. However, state directors and advisory committee members offered a number of reasons why a more highly placed program might have advantages. First, although at least one program director disputed it, higher placed programs can more effectively approach their executive and legislative branches for annual appropriations. A more prominent program can maintain a more visible profile with which to solicit funding. Second, a higher-placed program has fewer competitors when the agency budget is allocated.

Of equal impact on a state's program performance are the statutory ceilings that may be placed on the numbers and salary levels of program personnel. Nationally, some categories of essential radiation protection personnel are in short supply. The primary way to attract and retain them is through adequate salaries. The more elevated the status of the radiation program, the more likely it will be able to offer salaries competitive with industry or academia. Radiation protection program directors recommended that state radiation health programs be at least comparable in level to other state health and environmental protection programs.

A final advantage for the radiation control program to be in a higher level in the bureaucracy is the ability to secure additional personnel from within the state government to assist with added responsibilities during an emergency.

CHAPTER III

PERSONNEL

NRC Training Courses - General Comments

All Agreement State Program respondents indicated their personnel had received NRC training sponsored by the Office of State Programs. Five states noted that all of their employees had attended the Nuclear Regulatory Commission courses. Personnel in twenty non-Agreement States received some Nuclear Regulatory Commission training. The Nuclear Regulatory Commission gets uniform and unanimous high marks on the quality and value of the training programs. "Excellent," "priceless," "invaluable" are the most common adjectives. Three respondents felt that "hands-on" experience courses were more valuable than mere book courses – "reduce theory, emphasize practical aspects."

Respondents from non-Agreement State Program states were just as enthusiastic about Nuclear Regulatory Commission training programs. All but one state reported personnel had attended Nuclear Regulatory Commission courses. Two-thirds of the non-Agreement States termed the courses "Excellent and high quality," "good" or "essential."

Praise for Nuclear Regulatory Commission training courses was evident in whatever forum they were discussed – the National Governors' Association Task Force, the advisory committees and the Agreement State Program directors meeting. State staff, industry representatives, medical and hospital personnel and state legislators all recognize the quality and utility of the Nuclear Regulatory Commission training programs and recommend that additional funding should be made available to help states effectively manage new and changing regulatory programs. For FY 1980 through 1983, NRC's budgeted funds for training in the Agreement State Program has remained relatively constant except for increases necessary to keep pace with inflationary costs. Increased NRC funding in this area will be necessary if NRC is to be responsive to state requests for additional training. Much of the credit for the continuing high performance of state programs is attributed to the training received in the Nuclear Regulatory Commission courses. Access to such training is considered one of the chief benefits of Agreement State Program membership.

Ten-Week Course in Health Physics

The ten-week course in health physics sponsored by NRC was praised by most Agreement State respondents. Nearly half said the length was no problem. However, eight states indicated it was a mild to an extreme burden to lose a staff person for that period of time. Several states felt the ten-week course could be reduced to five weeks, and four states suggested two five-week courses as an alternative, provided that more staff be permitted to attend. Several states

emphasized that the training available in the ten-week course was unobtainable elsewhere and provided a rapid and irreplaceable introduction to health physics for state personnel.

The advisory committees' opinions of the ten-week course were uniformly favorable. One program director felt it should be required for state health physicists. "It's where I learned my health physics," said one participant. The lab work was viewed as especially important.

A survey conducted by the Nuclear Regulatory Commission[6] on state attitudes towards the ten-week course confirms many of the findings of the National Governors' Association fifty-state survey. While most states do not consider ten weeks too long and most could relieve an employee of duties for that period, still a sizable percentage (33 percent) agreed ten-weeks is too lengthy and over a fifth (21 percent) could not afford to send staff out of state for two-and-a-half months.

A revised health physics course of five weeks is under consideration by NRC staff. The Nuclear Regulatory Commission survey found considerable support for such an option. Eighty-six percent of responding states would take advantage of such courses.

In summary, states express a need for a shorter health physics course available to more personnel. It should not replace the ten-week course, which is considered indispensible by many and which is supported by nearly a quarter of all respondents to the Nuclear Regulatory Commission survey of state staff. Agreement State directors are insistent that they be heavily involved with the Nuclear Regulatory Commission staff in designing the five-week health physics course.

Comments on Other Courses

Agreement states offered comments on specific courses – lauding some, downplaying others. Questionnaires offered the following appraisals:

- industrial radiography and oil well logging courses are very useful,
- teletherapy calibration and medical procedures were valuable,[7]
- licensing orientation was weaker than most.

Retention of Qualified Personnel

A vast majority of Agreement State Program respondents indicated they had difficulty retaining qualified personnel because of salary differences between states and private industry, academia and the federal government. Twenty-three states had lost state personnel after they had taken a Nuclear Regulatory Commission training course. While no correlation was

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6 Basic Health Physics Questionnaire Summary, Office of State Programs, Nuclear Regulatory Commission, Washington, D.C. 20555. (November, 1982) (see Appendix F).

7 However, dissatisfaction was expressed with the medical procedures courses contracted by NRC given in New York City. This contract was discontinued at the start of FY 82 and replaced by another.

established between receiving training and leaving state service, several states listed the increased attractions to other employers of Nuclear Regulatory Commission-trained personnel as the only disadvantage of the Nuclear Regulatory Commission courses. While over half the states agreed that a means of recovering the costs incurred during training would be desirable if an employee leaves the service of the state soon after completing the course, several states felt that issue should be handled on a case-by-case basis.

In subsequent discussions with state program directors, one indicated that his state obtains a voluntary commitment from staff prior to training that they will remain with the state program for a reasonable time following course work. Another stated that his state requires a binding contract prior to training.

Seventeen non-Agreement State Program states claimed difficulty in retaining qualified personnel, while seven said they did not. Seven states indicated they had lost personnel after they had received Nuclear Regulatory Commission training, but eleven states answered in the negative. Non-Agreement states, by a wide margin, felt that it was advisable to establish a means of recovering the costs of training from employees who leave state service soon after completion of courses.

The Nuclear Regulatory Commission survey on the ten-week health physics course also obtained information on the attrition of state personnel who received the course.[8] Over a three-year period, twenty-two of sixty-seven trainees had left state employment. Significantly, nearly 70 percent of those leaving did so in the first year.

The broader question of the importance of retaining qualified personnel – not just those who recently received Nuclear Regulatory Commission training – produced a consensus among members of the advisory committees. State program directors, industry representatives, environmentalists and medical and research staff all agreed that retention of experienced state personnel provided better protection of public health and safety and was more efficient. The basic challenge was to locate adequate, sustained funding to cover competitive salaries.

There are national shortages of the radiation protection specialists needed for state programs. This results in the escalation of salaries in excess of what states can pay. In some states, beginning health physics staff can earn nearly 50 percent more working for commercial employers as opposed to state programs. Industry representatives indicated some sympathy with the plight of states and felt that competitive salaries for technical specialists, supported by appropriations and user fees, might be justified.

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8 Nuclear Regulatory Commission, op. cit. (See Appendix F).

There are, however, impediments to states offering competitive salaries. Many states have pay scales far below the market rate for particular positions. If a radiation control program is positioned far down in the state bureaucracy, it may take extraordinary efforts to raise the salary of specialists. With funding shortages affecting all state agencies, both the executive and legislative branches are likely to resist making an exception for the radiation control program in the absense of a highly publicized crisis.

Changes in the NRC Training Programs

Agreement State personnel suggested a number of changes or additions to the Nuclear Regulatory Commission training programs. The most frequent recommendations were; provide refresher courses on current radiation control management practices, plan training courses for states' convenience in different parts of the country, and offer courses more frequently during the year. States supported the addition of the following specific courses-advanced courses on interpretation of environmental measurements relating to humans and requirements for packaging and transportation of radioactive materials.

Among non-Agreement States, scheduling of courses in different parts of the country was the most common recommendation. Non-ASP states also suggested better access to courses and an increase in space allotments for their own staff. Specific course changes included more basic health physics courses, and the addition of an instruction program for a laboratory set up.

Discussions with the National Governors' Association Task Force, the advisory committees and the Agreement State Program directors provided further comments in support of the above suggestions, as well as the following additional recommendations.

The increased responsibilities for low level waste disposal, delegated to states by the Low Level Waste Policy Act, occasioned the most frequent suggestions for new courses. State staff, disposal site operators and utilities alike recommended courses on inspection of vehicles and packages used for low level waste transport and on emergency response to transportation accidents. A course on the Nuclear Regulatory Commission's low level waste licensing procedures was advocated by several members. (One advisory committee member, however, suggested that since siting and licensing of a low level waste facility is a one-time occurrence in a state, consultants might be used in place of permanent state staff.) A final recommended course relating to low level waste was an introduction to the geology and hydrology requirements for siting a low level waste facility. This would permit the radiation program staff to more easily communicate with state geologists. A review of all the requirements involved in 10 CFR 61 including the manifest system was also advised.

The issue of more extensive use of videotapes was discussed at length. Their versatility and comparative economy suggest wider use should be made by the Nuclear Regulatory Commission. While most respondents surveyed by the National Governors' Association supported

the concept, several caveats were offered. First, use of videotapes should be a supplement rather than a substitute for current Nuclear Regulatory Commission training courses. Second, Advisory Committee members and state staff repeatedly emphasized the value of the 'hands on' or applied nature of the current Nuclear Regulatory Commission courses.

Computer courses were also suggested, but many members thought that local companies and universities could provide that training, while the Nuclear Regulatory Commission should confine itself to courses of significant need to state radiation protection personnel. A refresher course on health physics and courses on evaluation of sealed sources and devices were also proposed.

General comments regarding the Nuclear Regulatory Commission training courses included the following:

- industry should offer to do more training of state radiation program staff
- the NRC should synchronize courses with proposed issuance of new regulations or revision of old ones
- participation of Agreement State Program staff in training courses is encouraged
- course-related materials should be sent out prior to the start of courses
- means should be devised to better gauge the progress of participants during the course of instruction, tests should not be administered only at the conclusion of training
- states appreciate NRC efforts to reprogram money to provide additional training opportunities. When reprogramming is possible, the Nuclear Regulatory Commission should attempt to distribute courses more evenly throughout the year.

Finally, there were conflicting recommendations on making more training slots available for non-Agreement State Program personnel. Non-Agreement States requested more training opportunities, claiming that since all states pay taxes, the Nuclear Regulatory Commission's programs should be equally available to all state radiation personnel. Furthermore, they noted, the Nuclear Regulatory Commission training of non-ASP member staff is useful in upgrading a state's program and promoting its interest in seeking Agreement State Program status.

Agreement State Program directors, however, felt their staff should continue to receive preference for placement in Nuclear Regulatory Commission courses. States negotiating a Section 274b agreement are also given preference. Non-members are then offered slots.

Some Agreement State program directors indicated that their staff sometimes have to cancel scheduled training because they cannot obtain a binding state travel authorization far enough in advance of a course. After enrolling in a course, failure to obtain such travel authorizations from state authorities sometimes causes cancellation. This results in a vacant slot for the duration of the course.

Given the acknowledged value of the courses and the expense that the Nuclear Regulatory Commission incurs in guaranteeing a specified number of trainees, the National Governors' Association recommends that, to the extent feasible, each state provide travel authorization at the time a staff person is enrolled in a Nuclear Regulatory Commission training course to guarantee that the desired training will be obtained and Nuclear Regulatory Commission monies not be wasted.

New Personnel Needed to Become an Agreement State

Non-Agreement State Program members were asked to estimate how many additional personnel would need to be added to qualify for Agreement State status. Fifteen states estimated zero to five new staff would be required. Three states determined an additional six to ten. Estimates of eleven to fifteen, sixteen to twenty, and twenty-one to twenty-five were also submitted by one state each.[9]

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9 According to existing NRC guidelines, about 1.0 to 1.5 staff years per 100 licenses are needed to carry out an Agreement Materials program. States regulating mills or a low level waste disposal site will need additional resources. See 46 Federal Register 59341.

CHAPTER IV

FUNDING

State Radiation Control Budgets

Over half of Agreement States' annual radiation control budget expenditures were reported to run between $100,000 and $500,000. Four spend between $500,000 to a full million a year. Two states each spend between $1-3 million. One expends over $3 million annually, and none spends under $100,000.

Typically, the Agreement State Program utilizes between a quarter to a third of a state's radiation control budget. Percentages ranged from 10 percent to 20 percent in six states, 20 percent to 30 percent in nine states, and 30 percent to 40 percent in four states. Yet, no generalization may be made about the size of state program expenditures and the proportion obligated to the Agreement State Program. One of the largest state radiation control programs devoted nearly 70 percent of its monies to the Agreement State Program, and a half million dollar program spent less than 5 percent on other-than-Agreement State Program requirements. Other large programs, however, spent just a small fraction on the Agreement State Program. The shift in Agreement State Program-related expenditures between FY 82 and FY 83 in one state illustrates the difficulty of correlating the level of state expenditures with the percentage devoted to the Agreement State Program. While this state's radiation protection budget will nearly double next fiscal year, the ASP costs as a percentage of the budget will decline by nearly half. The above illustrates that annual expenditures are an inconclusive measure of how well a state is fulfilling its Agreement State obligations. Other factors are more important.

The distribution of non-Agreement State Program radiation protection funding was similar to that of Agreement States. For example, eleven states expended between $100,000-$500,000 annually, four spent between $70,000 to $100,000, one state had a radiation control budget between $500,000 to $1 million, and two states spent above $1 million.

Sources of Funding

Because the state programs include different types of radiation protection programs, most states have a combination of sources of funding – appropriations, user fees and contracts. Around a half a dozen states rely exclusively on appropriations, and sixteen others draw on appropriations for some support.

Only one of the non-Agreement State respondents did not rely on appropriations to pay part of the state's radiation protection program. Six states indicated they collected user fees, but for few of them did such fees provide a substantial portion of the total budget. Twelve states held

contracts, but federal contracts usually amounted to less than 10 percent of the state's annual total expenditure.

User Fee Funding

Eleven Agreement States reported that they receive funds derived from user fees, fifteen do not. Eighteen states, however, have the legislative authority to institute user fees. Six of the eighteen states predicted that they could, based on an assessment of the attitudes of the legislative and executive branches, institute user fees in 1983.

Eighteen of the non-Agreement states indicated they have no funds derived from user fees. Four states, however, possess the legislative authority to institute such an arrangement. Five states felt they could establish such funding given the current attitudes of the executive and legislative branches in the state.

Discussion of user fees led to lengthy exchanges between Advisory Committee members representing state executive and legislative staff on the one hand and users on the other. While the advisibility of user fees was rarely questioned, their size, purpose and method of allocation were the subject of disagreement.

With many states facing fiscal shortfalls because of inflation and the reduction in federal funding and, given the present administration's encouragement for industries to cover the costs of regulation, increasing numbers of states are turning to user fees to provide some of the funds for annual radiation protection program. Present user fee systems vary as to what percentage of program costs are recovered. Up to 100 percent of full program costs are covered by a few states, although most programs recover in the 10 percent to 40 percent range. None of the new user fee structures proposed by states would exceed 50 percent coverage of total program costs.

Representatives of groups subject to user fees – radiopharmaceutical manufacturers, industries which use radiactive materials, universities and waste site operators — did not object in principle to the collection of user fees but offered a number of precautionary observations.

First, they felt that user fees should not be designed to cover all the costs of the radiation control program. The fee should be reasonable and should be tied in with cost of the service rendered – i.e. licensing or inspection. Full recovery of research or administrative costs was not generally considered a legitimate goal of a user fee. As one industry representative noted: Why should the radiation control program, alone among state agencies, be expected to recover full costs through user fees? Some state directors and legislators supported that view, voicing their conviction that states should provide some tax monies for radiation health programs.

The prospect of dedicated fees, that is, ones earmarked exclusively for state radiation protection programs, provoked some reservations among potential contributors. Industry members expressed the fear that such a fee system could lead to extravagant and wasteful expenditures by the state program beyond the control of the legislative branch. State executive

and legislative staff countered that although dedicated user fees are earmarked, they are not off-budget. State legislatures still appropriate the money to the agency and conduct oversight hearings on the operations and expenditures of the state programs. If states propose dedicated user fees, it is evident that assurances of adequate oversight will have to be offered to the potential contributors.

The size of user fees currently imposed by states was not considered onerous by most users. Some noted that fees varied among states, but not sufficiently to cause industries to locate or relocate facilities because of the cost differences. The differences between state user fees and those established by the Nuclear Regulatory Commission in Non-Agreement State Program states was mentioned as an irritant. Outdated NRC fees cause two problems. Either users complain that the state fee is too high or they resist state efforts to raise user fees above the NRC level. The Nuclear Regulatory Commission has provided briefings to both the National Governors' Association and the Agreement State Program directors on proposed changes in the Nuclear Regulatory Commission's fee structure.[10] The adoption of a revised schedule should minimize some of the gaps between fees charged or proposed by states and by the Nuclear Regulatory Commission. States have expressed dissatisfaction with the outdated NRC fees currently in place. While fee levels are not a major point of controversy involving the Agreement State Program, one state noted that it did consider withdrawing its membership due to industry pressure at a time when the disparity between state and the Nuclear Regulatory Commission fees was particularly great.

Federal Funding of State Programs

The Atomic Energy Act does not authorize NRC to provide funds to the Agreement States to operate their Agreement State programs. Two-thirds of ASP members responding supported the provision of federal funds for state programs. States observed that while they have assumed responsibility — and the considerable costs associated with running a radiation health program — NRC has provided no compensation to states. A majority of states advanced the idea that NRC should provide assistance to states, especially "seed money" to foster programs in states wishing to join the ASP. They suggested that if federal money is provided, it should be directed to the program itself and not be added to general funds. Six states opposed federal funding, one strenuously voicing the fear of increased federal control. Another respondent suggested that if federal money went to Agreement States, then the NRC would initiate charges for the NRC training programs which are now offered without cost. The result would provide no real fiscal benefit to the states.

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10 Proposed revisions to NRC's fees were published in the Federal Register on Nov. 10, 1982. See 47 Federal Register 52454.

Two-thirds of the non-ASP states supported federal assistance to state programs, while seven opposed it. Those supporting federal monies were especially interested in 'seed money' to initiate ASP membership. The Advisory Committee meetings generated considerable comment about federal funding. While some degree of federal funding was supported by the states, a number of reservations about extensive federal support were raised by states and industry alike. Among the observations were the following:

- Over reliance on federal funding leads to federal control. This in turn undercuts state flexibility which is one of the chief attractions of the ASP. A state program director observed that federal funding usually requires a state match and involves federal strings. Fear of federal intrusion was also voiced by a state legislator from an Agreement State
- If user fees are not in place and the state legislature is not accustomed to providing annual appropriations, the radiation control program can suffer a severe and damaging loss of funding should the federal budget be reduced with federal funds for state programs likewise reduced.

The provision of "seed money" to assist states in joining the Agreement State Program was more generally supported by the members of the advisory committees. While one present Agreement State felt that directing federal assistance only to prospective Agreement States was unfair, most participants felt such an expenditure was a worthwhile investment. One state which is seeking Agreement State status estimated the initial cost of meeting NRC technical and personnel standards at nearly $1 million. While this state anticipates implementing user fees, it cannot accumulate monies prior to providing the services for which it will charge fees. Further, a legislative appropriation of that magnitude is unlikely. Thus, some federal "seed money" could be a key in determining whether a state joins the program. An Agreement State on the NGA Task Force felt that meeting ASP membership criteria was more costly than fixteen years ago when his state joined. Another state director cited the Uranium Mill Tailings Radiation Control Act as a precedent for the provision of "seed money" to assist state programs.[11] Several industry representatives argued that since states implement the program and may assess user fees, federal contributions should be limited. A state program director observed that the NRC training courses represent a significant and valuable federal contribution to the total program.

In summary, most states surveyed and the majority of Advisory Committee members agreed that the federal government should provide "seed money" for states seeking Agreement

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11 See footnote 5, p. 11.

State status. A few Agreement States felt that federal government should assist current Agreement States with money allocated on the basis of the number and kind of licensees. Most advisory committee members expressed reservations about states' overreliance on federal support.

CHAPTER V

PARTIAL AGREEMENTS FOR REGULATION OF LOW LEVEL WASTE DISPOSAL

Under NRC policy,[12] states may opt for agreements with NRC to assert regulatory control over any one or combination of five categories of radioactive materials:

- source materials
- special nuclear material (in small quantities)
- by-product material as originally defined by the Atomic Energy Act, e.g. material made radioactive in a reactor
- by-product material as defined by the Uranium Mill Tailings Radiation Control Act (UMTRCA), e.g. uranium and thorium mill tailings
- permanent disposal of low level waste (but not including mill tailings).

All twenty-six agreements negotiated to date were originally "full" agreements. However 3 states (Arizona, Idaho and Nebraska) chose not to attempt to meet the requirements of UMTRCA and, at the request of the governor, have turned back to NRC authority over uranium mills and mill tailings. Pending resolution by Congress of certain issues now affecting states presently regulating mills, NRC authority over mill tailings will devolve to NRC except in those states that have enacted amendments to their agreements with NRC to conform with UMTRCA requirements. Only these latter states will continue to have "full" agreements.

For the purposes of the following discussion, however, "partial agreement" refers to an agreement covering only the regulation by the state of permanent disposal of low level waste (not including mill tailings).

Only four of the ASP respondents indicated a possibility of interest in relinquishing radiation protection responsibilities to become a partial Agreement State. Avoiding the regulation of a small number of very complex licensees requiring large state and source expenditures was considered the major advantage to partial status by six ASP states. Other advantages listed were 1) the ability to gradually expand a program and 2) saving money by not having to regulate uranium mills.

Four states cited the lack of a single authority regulating users as a disadvantage, while two states mentioned the loss of control over licensees. Public confusion as to who regulates was also cited by two states. Ten states noted emphatically that they saw no advantage to partial status.

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12 46 Federal Register 7540, January 23, 1981 and 46 Federal Register 36969, July 16, 1981.

Of the non-Agreement States, five states each cited the dual advantages of the partial ASP as being:

- the ability to gradually build a radiation protection program
- the option of selecting those areas of greatest interest to the state.

Two states felt the partial ASP would be less costly, and a single state commented that under the partial plan states could choose to regulate only low level waste disposal.

Under disadvantages, three non-ASP states cited fragmentation of state programs and public confusion over radiation control jurisdiction as the chief drawbacks of the partial program. Lack of control over licensees and the conviction that the paperwork requirements for partial status would be nearly equal to that of full ASP status were also mentioned. Asked whether they would consider partial agreement state status, non-ASP states responded: Twelve-yes, five-maybe, and three-no. Four states had no comment. Discussions with the advisory committee revealed less enthusiasm for the partial Agreement State Program. The fear of fragmented jurisdictions and dual regulation was the principal fear expressed by those who deal with regulatory agencies, while some state representatives voiced interest in opting only to regulate low level waste disposal. One utility staff person observed that low level waste regulation involves many operations other than the actual disposal site and that the partial Agreement State low level waste option available from NRC is not comprehensive enough to satisfy most states. A state representative on an advisory committee voiced the opinion that a restructuring of the program to offer a comprehensive low level waste disposal option was advisable, but offered no details.

CHAPTER VI

FEDERAL LEGISLATION AFFECTING THE AGREEMENT STATE PROGRAM

Uranium Mill Tailings Radiation Control Act (UMTRCA)

Twenty of the ASP respondents checked "no" or "not applicable" regarding the impact of federal mill tailing legislation on attitudes towards the Agreement State Program. Six states indicated an impact, with comments being evenly divided between positive and negative. Three states were convinced that the federal law resulted in improvements in their own programs. Three states charged that the federal legislation had a negative effect. "More bottlenecks than improvements," read one observation, accompanied by the complaint that considerable staff time had been expended negotiating with NRC over the state's uranium mill tailing program. Another state said the federal law had disrupted an industry/state agreement. A third state remarked that it might surrender control over mill tailings to NRC as a result of the act. Another state mentioned it already had.[13]

All non-ASP state respondents stated that the mill tailings legislation was either not applicable or had not affected their attitudes towards the ASP, though one state currently negotiating with NRC is seeking partial ASP status, that is, one excluding uranium mills and mill tailings from state jurisdiction.[14]

At the advisory committee meeting, members discussed the mill tailings issues at length, reflecting the mixed views received on the state survey. Some states felt the mill tailings legislation had improved their programs and that they had negotiated satisfactory arrangements with NRC. One state, however, contended the federal requirements were unreasonable and unworkable and characterized the state/NRC impasse as an honest difference of opinion between state and federal staff. Another state director asserted that the mill tailings legislation had added nothing to his program. An individual who represents environmental citizens groups was supportive of the Mill Tailings Act requirements and called for greater uniformity among states in conforming to federal standards. He noted that if a single state did not have to enforce the federal standards, mill operators in other states would be reluctant to comply. Despite the disagreements over the mill tailings issue, none of the states surveyed and no members of the advisory committees recommended any changes in the Agreement State Program with respect to the mill tailings legislation.

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13 Three Agreement states have relinquished regulatory authority over mill tailings to NRC: Arizona, Idaho and Nebraska.

14 Utah.

Low Level Waste Policy Act

Practically all Agreement States agreed that passage of the Low Level Waste Policy Act would affect their programs, but few had yet experienced any effects. Participation in compact negotiations was the most tangible impact on most states. A few states mentioned having to undertake increased inspections of waste shipments. One state referred to its financial commitment to the compact authority, and another indicated it is now monitoring a closed low level waste site. Two states said jurisdiction over low level waste was with another state agency.

Most Agreement States, however, felt the major impact of the Low Level Waste Policy Act would occur later and would be substantial, especially if a state hosted a disposal facility.

Among other observations offered on the impact of the policy act were the following:

- States will have to deal with another entity — the regional low level waste compact commission — which will have some influence over low level waste policy and practices. This may complicate matters for a state program. (The state that raised this issue, however, gave its own regional commission high marks for a reasonable and flexible performance thus far.)
- Joining a compact may lead to more frequent inspections and enforcement of new regulations.

Non-Agreement States reflected the same views on the impact of the Low Level Waste Policy Act as did ASP members. Few had yet been directly affected — most of them only through participation in negotiations in compacts. The measureable impacts were presently confined to increased monitoring of shipments. Looking ahead, non-Agreement States foresaw more work with fewer resources as compact members and a major increase in effort, requiring at least partial Agreement State status, if they were selected as a host state.

The advisory committees affirmed the findings of the fifty-state survey. They agreed that thus far negotiations and the monitoring requirements of a regional compact have constituted the major impacts of Low Level Waste Policy Act. For the future, Advisory Committee members predicted the need for an extensive public education effort about low level waste — a campaign that many state radiation control programs could be involved in. Both state and commercial members recommended that care be taken in negotiating compacts to avoid fragmentation of state regulatory authority. Several state members also commented the possibility of commingling mill tailings and low level waste could affect their individual state program.

Twenty-two ASP states did not recommend any changes as a result of passage of the Low Level Waste Policy Act. Four states offered suggestions. Three recommended new training courses on low level waste disposal methods, DOT and NRC packaging and transportation

requirements and decommissioning criteria. Another state suggested accelerating development and issuance of NRC license application review criteria for licensing a low level waste facility. Finally, one state suggested that experienced personnel be loaned to assist new host states in monitoring the facility.

Twenty-three non-ASP states offered no suggestions for changes. One state suggested full federal funding for state low level waste efforts.

Advisory committee members, while agreeing that the federal low level waste legislation would profoundly affect the degree of state involvement in low level waste management, did not feel any changes in the ASP program were presently necessary.

Agreement State Membership for Low Level Waste Compact Members

Thirteen non-ASP states considered Agreement State membership advisable for low level waste compact members; five considered it necessary. It was assumed that a host state would seek ASP membership. Four states felt that a 274i agreement would be sufficient for compact members.[15] Most Advisory Committee members had no strong convictions on whether all compact members should be ASP members. The advisory committees were convinced that host states would probably all choose to become Agreement States. Advisory committee members did not feel, however, that ASP membership should be required of all host states. The Agreement State Program directors similarly presumed that most host states would choose to assume at least partial ASP jurisdiction over low level waste, though this should not be required.

In summary then, despite the major impacts of the mill tailings and low level waste legislation — especially on states that currently regulate tailings piles or low level waste sites — no major regulatory or legislative changes were recommended. The Agreement State Program as currently structured is viewed as sufficiently comprehensive and flexible to handle the resulting changes in state programs and practices.

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15 Section 274i of the Atomic Energy Act authorizes NRC, in carrying out its licensing of regulatory responsibilities, to enter into Agreements with any state, or group of states, to perform inspections or other functions on a cooperative basis.

CHAPTER VII

NRC PERFORMANCE

NRC Reviews of Agreement State Programs

Sixteen ASP members termed NRC reviews of their programs thorough and accurate, while five found the reviews fairly thorough and accurate. Other comments included:

- further expansion of the reviews is not desirable
- NRC comments are usually constructive
- it may be difficult for NRC to relate to a small ASP

All twenty-six states noted that the NRC reviewed their programs every one to one and a half years.

Advisory Committee members' opinion of the NRC review of ASP performance was generally favorable. Common overall descriptions of NRC reviews were "thorough," "good," and "adequate." The specific findings of NRC review teams were considered especially useful by states who termed them "beneficial" and "highly regarded."

The only fault ascribed to the program was not reviewing frequently enough. State directors indicated that the frequency of NRC appraisal of their programs has varied in the past, but now seems stablized at every twelve-to-eighteen-months. Guidelines for evaluating Agreement State programs have been issued by NRC as a Policy Statement,[16] following an earlier publication of the guidelines in proposed form for public comment.[17] In the earlier publication, the commission solicted comments on whether more objective performance indicators were desirable. Only one state, at that time, commented favorably on such a proposal. In this study, it was clear that the present guidelines are considered to be serving their purpose well and no recommendation was developed to alter the present conceptual approach for evaluating state programs.

The question of self-audits was raised by both the advisory committees and at the Agreement State program directors meeting. One staff member distinguished self-certification — where a state determines by itself the adequacy and competence of its program — from self-audit. State staff agreed that self-certification in place of periodic NRC reviews was ill-advised. Self-audits, however, have proven useful to several states in the past and were recommended by them and by NRC staff as a useful complement to the present NRC review procedure.

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16 46 Federal Register 59341, Dec. 4, 1981.

17 45 Federal Register 65726, Oct. 3, 1980.

One advisory committee summarized the importance of NRC reviews by noting that NRC, through the thoroughness and frequency of its reviews, is the ultimate guarantor of the quality of the Agreement State Program.

NRC Agreement State Program Review Guidelines

Twenty-three of twenty-six Agreement States termed the guidelines with which NRC reviews ASP programs "reasonable," "adequate" or "good." Two states each found the guidelines "too detailed" or conversely "not broad enough."

When asked for suggestions of alternatives to NRC's assessing state programs, twenty-two Agreement State respondents urged no change, though three states felt occasional use of joint teams composed of NRC and ASP personnel might prove beneficial. Several states noted that the NRC review was a useful management tool and provided an essential independent check of state performance. Two states suggested self-audits as a useful adjunct to NRC review, and two states preferred an independent review by state radiation program directors.

Satisfaction with NRC's present review criteria was strongly voiced in a discussion among the members of NGA's Agreement State Task Force. The issue of more objective review criteria was examined but found no support among state representatives. Members emphasized the value they place on thorough review by qualified NRC personnel. Such reviews have proven instrumental in improving state programs in the past. States feared that attempts to institute a 'checklist' approach might lead to less knowledgeable NRC personnel performing a detailed, yet superficial, examination of a state program. States welcome the flexibility that review by well-trained, experienced NRC staff affords and endorse the present review criteria.

NRC Regulation in Non-Agreement States

Non-ASP members offered a broader range of comments on NRC's performance than did Agreement State members. Seven states' views were positive, with their distribution running from excellent to very good to good. Six states viewed NRC's performance as satisactory. Three states did not comment or said they were unaware of NRC's performance. One state said that the NRC inspection program was inadequate. Although that state did not elaborate, its response to an earlier question on the frequency of inspection indicated that that particular state judged NRC inspections to be infrequent. While the preponderance of non-ASP states were notified of some NRC inspection visits, states were not always aware of NRC inspections.

The vague responses to questions about the frequency of NRC inspections in non-Agreement States, i.e."follows an NRC priority schedule," "unknown", "in accord with NRC guidelines," and "variable," suggest some improvements in communication are needed between NRC and non-ASP programs regarding NRC inspection activities in their states. Two states said they had no communication with NRC regarding NRC inspections.

One state noted that NRC's inspections of facilities were improved but continued incidents demonstrated that further improvement was necessary, and two states felt they could do better than NRC and were seeking ASP status themselves. Regarding NRC personnel, one state praised the seasoned inspectors but felt they were hard to retain by NRC.

The opinion of NRC inspection performance in non-Agreement States by members of the advisory committees was for the most part positive. Several said NRC performed as well as ASP states. A university department chairman found NRC inspections "thorough and timely" and NRC staff, especially veteran personnel, were considered "well-trained" and "competent." Only one industry representative found NRC inspections "uneven."

NRC licensing operations were viewed more critically. Long delays in licensing and answering correspondence were noted by several participants. Both industry and state personnel contended that some of the Washington-based staff had never seen the types of facilities they were asked to license. It was hoped that regionalization would bring licensing staff in closer contact with the facilities they regulate. It might also speed up licensing.

Review of NRC's Materials Regulatory Program

ASP states were nearly unanimous in recommending NRC's materials regulatory program be reviewed systematically. Only one state opposed it. Most did not elaborate, but three suggested review by a panel of ASP representatives. One suggestion was recorded for internal review by NRC.

Non-ASP members reflected the same sentiments as their Agreement State counterparts in calling for review of the NRC program. Twenty-three respondents endorsed outside review of NRC's program. Two candidates for parties to conduct a review were offered, the Conference of Radiation Control Program Directors or a peer review.

Few issues posed by the NGA questionnaire engendered such unanimity on the part of respondents. In conversations with state program directors and the NGA Task Force, the states' justification for reviewing the NRC program is based on two premises:

- There is at present no regular appraisal of NRC performance in the twenty-four non-Agreement States comparable to that conducted in the ASPs. It is inconsistent to expand efforts on certifying ASP performance and not provide equal attention to the program responsible for the half of the nation which is under NRC jurisdiction.
- ASP state directors find the periodic NRC analyses of their programs very helpful in identifying areas that need refinement. A regular review of the NRC performance would likely result in similar improvements.

The Advisory Committee's discussions of the review of NRC's performance focused on questions of the value and propriety of such a proposal. Several members contended that NRC was subject to frequent, if not regularly scheduled, reviews by a host of federal and non-federal

organizations ranging from Congress to the General Accounting Office to public interest groups. Other members countered that there is no substitute for a systematic review which gauges performance on a periodic basis against established standards. One state director mentioned that the AEC had made some errors in its day, and outside monitoring could only benefit the NRC program. Members of one advisory committee recognized the problem of a regulatory agency's actions in turn being reviewed, but acknowledged the merits of outside review.

The other advisory committee was more enthusiastic about reviewing the NRC performance. Inspection by ASP personnel or at least ASP oversight over periodic NRC self-audits was suggested.

In conclusion, the advisory committees supported the recommendation of most state directors that NRC's materials regulatory program be subject to systematic performance review.

CHAPTER VIII

COMPATIBILITY VS IDENTICALITY

The Atomic Energy Act requires Agreement State programs be adequate to protect public health and safety and compatible with that of the commission.[18] Each agreement contains an article in which the state and NRC promise their "best efforts" to maintain compatibility by consulting with each other in the development of regulations and changes in regulatory programs. Agreement States are not required to have regulatory programs identical in all respects to NRC's. This is a key feature of the Agreement State program. As set out by NRC in its policy statement for evaluating Agreement State programs, "compatibility" of state regulations means:

> "The state must have regulations essentially identicial to 10 CFR Part 19, Part 20 (radiation dose standards and effluent limits) and those required by UMTRCA, as implemented by Part 40."[19]
>
> "The state should adopt other regulations to maintain a high degree of uniformity with NRC regulations."

Other guidelines speak to establishment of procedures to assure timely updating of state regulations and opportunities for comment on them.

This approach enables flexibility to be given to states in developing their regulations to respond to local conditions and conform to state requirements for codification of regulations.

The issue of whether state regulations should be compatible or identical with NRC regulations was raised in state responses to the question of what factors would cause them to relinquish Agreement State status. Several states indicated that a requirement for all Agreement States to adopt identical regulations would cause them to leave the program. The issue of whether to require identical or compatible regulations by states was posed to the Advisory Committees.

Identicality, while theoretically possible, can never be achieved because of variations in interpretation and enforcement. The advisory committee members agreed that identicality was not only impossible, but also ill-advised. States must retain the capability to respond to local or changing circumstances. As another committee member noted, rigid rules may also stymie innovation.

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18 Additional requirements are set out in Section 274o for states regulating mill tailings.

19 At the time of writing of this report Congress has embargoed this part of Part 40.

Advisory committee members generally agreed that the present system of compatibility was working well but pointed out several factors which contribute to regulatory or licensing variations among states as follows:

- Agreement State adoption of new NRC regulations is sometimes slow. Industries with interstate operations suggest that a method for more rapid adoption be devised.
- More extensive reciprocity agreements should be developed between Agreement states and the Food and Drug Administration (FDA).[20]
- Record keeping requirements among states vary. While it is not currently a problem, it may require attention in the future.

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20 This specific matter was a limited, technical issue relating to requirements for labeling of radiopharmaceutical products that are subject to NRC, Agreement State and FDA requirements. It did not exclusively involve the Agreement State Program. It highlights the need for federal agencies to coordinate and cooperate amongst themselves when dealing with states in areas where all have a regulatory interest.

CHAPTER IX

STATES ASSESSMENT OF THE AGREEMENT STATE PROGRAM

State Views

The initial part of this study consisted of an assessment of views of the ASP by the state radiation control program directors. Their views were collected in a mail survey (see Appendix D). The results of the assessment were factored into this report. Specific results of the assessment follow.

The NRC Agreement State Program received unanimous support from its members. The only observations identified were:

- states must receive adequate support through training and periodic program evaluation,
- sufficient technical personnel must be available from NRC to assist with emergencies or to respond to requests for assistance on licensing matters.

The ASP was praised as a model for reducing federal bureaucracy and allowing state autonomy.

Non-ASP members also unanimously endorsed the Agreement State program. They commented that the ASP option was important and that states perform radiation protection functions for less money than the federal government. One state noted that continuing adequate funding for the program was a necessary condition.

In the assessment, six states felt no improvements were needed. Most states, however, offered suggestions for changes. Several dealt with financial matters, i.e., the federal government should fully fund the program and should provide more incentives and staff compensation. The question of consultation between NRC and states was frequently mentioned with suggestions for greater input, more reliance on "reasonableness" in reviewing state programs rather than "compatibility," especially since states pay 100 percent of the costs, and a greater recognition by NRC of the states' problem-solving abilities. Additional suggestions from single states include:

- a time restriction on federal employment of state employees who have taken NRC training courses
- stricter limitations on reciprocity of licenses
- more technical support to the states.

Nearly half the non-ASP states chose not to comment or had no suggestions. The preponderance of those who did recommended financial assistance — either "seed money" or full funding. Two states called for less emphasis on compatibility and more on cooperation. Another

state strongly advocated greater consultation with NRC and the states towards jointly developing a comprehensive national radiation control program.

Advisory Committee Views on the Assessment

Advisory committee members were equally enthusiastic about the Agreement State Program. Despite lengthy discussions about some of the minor flaws or irritations that users or generators of radioactive materials encounter, no one questioned the basic concept of the program or the manner in which it is being implemented. It is viewed as an extremely successful program, in both design and operation.

CHAPTER X

MANAGEMENT CASE STUDIES OF AGREEMENT STATE PROGRAMS

As part of this study of the Agreement State Program, four Agreement States – Florida, New York, Texas and Washington – were selected for detailed management case studies. These states represent a cross-section of ASP members in terms of geographical region, scope and size of the radiation control program and number and type of licensees:

State	Year of Agreement	Region	Number of Licensees[21]	Mills	Low Level Waste Site
Florida	1964	SE	796	No[22]	No
New York	1962	NE	1765	No	Yes-Closed
Texas	1963	S,SW	1850	Yes	No
Washington	1966	NW	381	Yes	Yes

Particular attention in these studies was directed at the organization and funding arrangements in each state. As it will become readily apparent, there are some common threads amongst these programs but some significant differences, particularly in approaches to organization and funding, are also striking.

On the basis of the four management case studies conducted for this report, certain conclusions about the functioning and funding of state radiation protection programs can be inferred:

- User fees provide a source of stable funding in an era of tight state budgets. Reasonable user fees to cover costs for licensing and inspection have proven beneficial in the states studied.
- Most states have chosen to consolidate all radiation protection programs within a single agency. This offers benefits in terms of administrative overhead, allocation of user-fees (if authorized), and coordination among related programs. New York State has retained the division of responsibility by function. Except for New York City, user groups deal directly with the state department, such as Labor or Health, depending on the use to which the radioactive material will be put. States contemplating joining the Agreement State Program should consider the advantages and disadvantages of the consolidated or separate agency approach.

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21 As of December 31, 1982.

22 Some Florida phosphate plants, however, recover uranium as a secondary product.

- States that both operate and regulate a facility run the risk of encountering both real and perceived conflicts of interest. For these reasons, states included in this study have chosen to assign the regulation and ownership of a facility to separate departments. This division of responsibility appears particularly important in regard to low level waste facilities.
- Whether states have a consolidated or dispersed program, they have instituted highly centralized and coordinated emergency response programs.

Agreement State Program: Florida

History

Florida became an agreement state on July 1, 1964, when an agreement was signed by James T. Ramey, Commissioner of the U.S. Atomic Energy Commission (now the Nuclear Regulatory Commission) and Govenor C. Farris Bryant. The State assumed the responsibility to regulate radioactive by-product materials, source materials, and special nuclear materials in quantities insufficient to form a critical mass. This agreement is in Attachment A. The State joined the Agreement State Program (ASP) because it believed it could control radioactive materials more effectively and efficiently than the federal government. The ASP responsibilities and other aspects of Florida's radiation control program are now located in the Department of Health and Rehabilitative Services (DHRS).

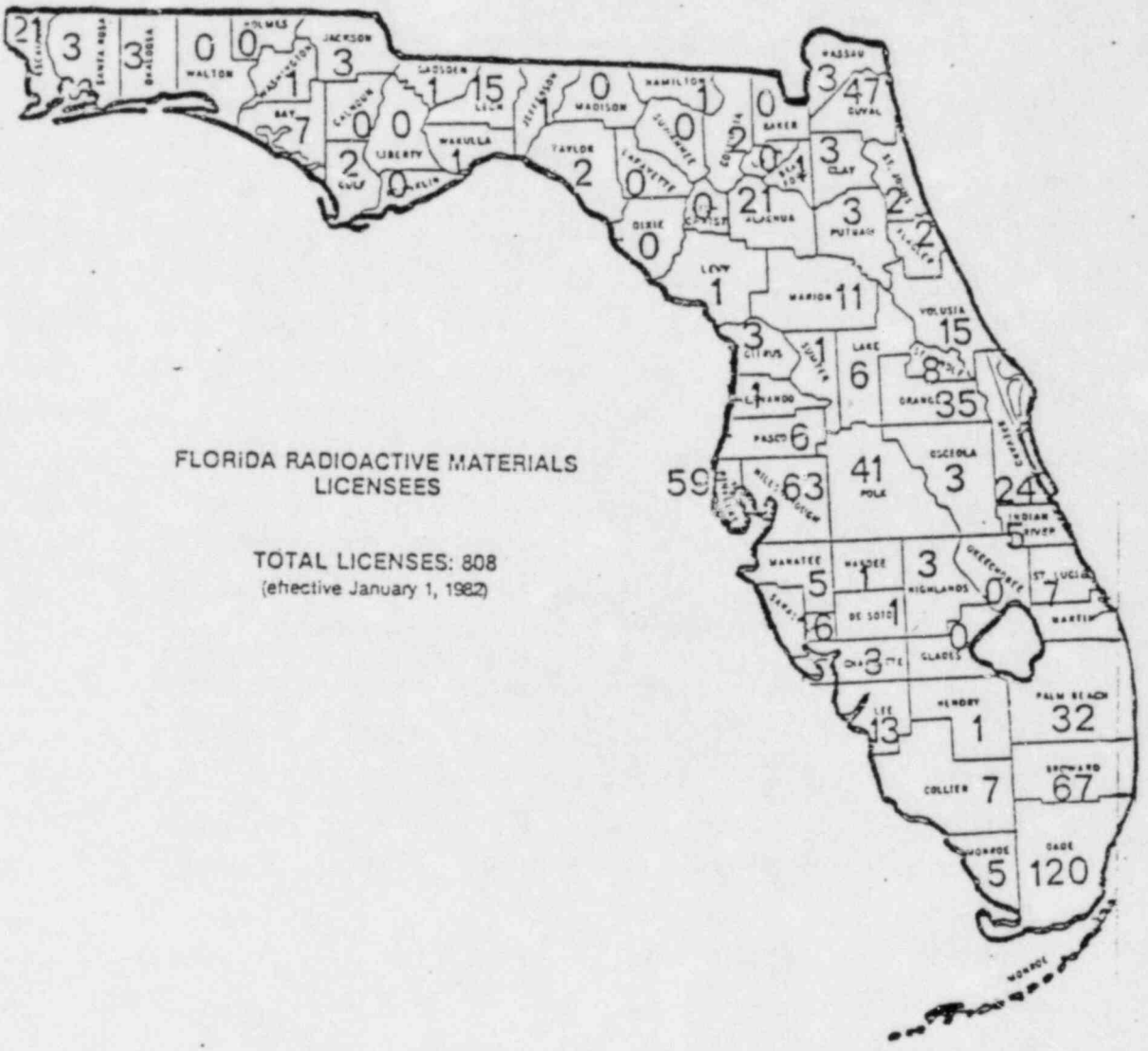
Profile of Licensees

As of January 1, 1982, there were 808 state licensees in Florida. There are also four nuclear power reactors (another is scheduled to begin operation in 1983). Licensees are clustered around the population centers of Miami (Dade County), Orlando (Orange County), Jacksonville (Duval County), and Tampa Bay (Hillsborough County), as indicated by Figure 1. Of Florida's licensees, 61% are for non-medical uses and 39% are for medical uses. There are no licenses issued for commerical waste disposal.

Low Level Waste

About 75,000 cubic feet of radioactive waste are generated annually in Florida, down from 100,000 cubic feet annually in the past. Because ninety-eight percent of medical-use waste consists of radioisotopes having a half-life of six hours, i.e., technicium 99m, DHRS instructed medical licensees to store the waste until it is essentially no longer radioactive and then to dispose of it as regular trash. Ninety-two percent of the radioactive waste now generated which requires handling and disposal is from nuclear reactors, with the remainder from academic users, uranium recovery processes, and other industrial users. The Office of Radiation Control (RC), the radiation control program office in DHRS, predicts that the reactor scheduled to go on line in 1983 will produce about 15,000 cubic feet of waste during its first year of operation. Though this is a smaller amount than new reactors produced in the past, it is expected to increase as the reactor ages.

Figure 1


FLORIDA RADIOACTIVE MATERIALS
LICENSEES
TOTAL LICENSES: 808
(effective January 1, 1982)

The University of Florida is completing a study of waste problems in the State. All licensees, including federal ones, were contacted in preparation of the report, which will include a projection of the volume of waste to be generated in Florida in the next decade.

Transportation

Florida has had the responsibility to regulate the transportation of radioactive materials since March 12, 1973, the date on which a cooperative agreement was signed between the Federal Highway Administration and the DHRS (then the Department of Health).

The Florida legislature passed a law in 1982, House Bill 1066, that in part mandates a new state inspection program for transporters of low level radioactive waste. Inspections began on November 15, 1982. Section 25 of House Bill 1066 establishes a detailed inspection program at the point the vehicle departs for a waste management facility. Because there are no storage or disposal sites in Florida at this time, waste is taken out of state. The primary site to which waste is shipped is Barnwell, South Carolina. This same facility is to be used by members of the Southeast Interstate Low Level Radioactive Waste Compact, which Florida has ratified. Major provisions of HB 1066 are as follows:

- the licensee must notify the DHRS that waste will be shipped at least forty-eight hours before time of shipment;
- the DHRS representative inspects the vehicle and cargo and approves the shipping paper;
- the shipment will be inspected again upon arrival at the waste disposal facility;
- upon notification of the waste's arrival at the disposal facility, the licensee has 72 hours to notify DHRS: the licensee has two weeks to forward to DHRS notice of any violation of South Carolina's rules;
- anyone desiring to bring waste into or through Florida must obtain a permit from DHRS.

The DHRS Secretary delegated this program to the ORC, which is currently developing rules and regulations for the program. This inspection program is expected to require the full-time equivalent (FTE) workload of two additional inspectors, one FTE clerical worker, and one-half FTE supervisor. These positions are funded by a fee on the licensee of $1.25 per cubic foot of waste shipped.

The Southern States Energy Board (SSEB), in conjunction with EG&G, Idaho, Inc., has developed a computer system for Florida that will permit recording of information on waste leaving the State. The terminal in the ORC headquarters in Tallahassee is connected to the U.S. Department of Enrgy (DOE) computer in Idaho. DOE provided funds

for the terminal and auxiliaries, and the SSEB funds a person to enter the data. At this time, information on shipments will be entered after the ORC has been notified of the waste's arrrival at the disposal site. The system will permit Florida to easily furnish definitive information on the waste leaving the State to the Compact authority. The system has the potential to track all shipped waste.

Significant Program Changes

Florida's radiation control program has grown from one of the nation's early equipment inspection programs to a comprehensive management program. In 1958, a health physicist was hired to begin an x-ray equipment inspection program. Working under the Department of Health's broad mandate to protect the public health, the staff focused on reducing the radiation dose to patients from medical x-rays. In 1964, the State became an agreement state with a staff of twelve. The DHRS was reorganized in 1972 and established regional inspection offices in the State. There are now five ORC offices; Miami, Orlando, Jacksonville, Pensacola, and Tallahassee. The ORC headquarters moved from Jacksonville to Tallahassee in 1975. Some county health agencies also participate in the programs.

In 1976, legislation was passed authorizing twenty-four new positions, but no funds were appropriated for salaries. In 1979, the legislature passed the "Florida Radiation Protection Act", authorizing the DHRS to charge licensing and inspection fees invloving radioactive materials. Additional money was authorized for salaries and department expenses. The following year, 1980, fees for inspection of x-ray machines was authorized. The ORC now has sixty-three staff members.

As noted earlier, HB 1066 was enacted in 1982. It empowers the State:

- to participate in the Southeast Interstate LLW Compact;
- to license and site commercial disposal facilities; and
- to inspect waste being transported.

The State House Energy Committee provided the impetus for this legislation beginning in March, 1981. The ORC staff consulted with committee members on the compact provisions, which were the core of the bill. Utilities were anxious that Florida be part of the compact and worked with the staff in the development of a legislative package. Institutional generators, such as universities, and environmental groups, such as the Sierra Club and the Audubon Society, were brought into the process. The Energy Committee worked closely with the House Transportation Committee and the Governor. The Senate followed the lead of the House, and the bill passed with few problems. A

major provision of the bill, along with the compact aspects, was increased authority for ORC to license commercial waste facilities.

Adjustments to the compact provisions will be needed in the next 1983 legislative session because of modifications instituted by South Carolina, the host state for the region's existing LLW disposal site. Three meetings were held during the summer of 1982 to address South Carolina's concerns (after five state legislatures had passed language that had been agreed to by the compact states earlier) and the problems seem to be resolvable at this time.

Program Organization

Radiation control is conducted by the Office of Radiation Control (ORC) within the Department of Health and Rehabilitative Services (DHRS) under the Assistant Secretary for Operations. The DHRS is the largest Florida state agency, with over 35,000 employees, and is also one of the largest state agencies in the country. The organizational chart for DHRS is included as Figure 2.

The radiation control program currently has a staff of sixty-three and a budget for fiscal year 1983 of $2.1 million, 75% of which is provided by fees. There are fourteen full-time equivalent employees involved in the Agreement State Program (ASP). The FTEs working with the ASP work primarily on inspections and license activities. About 11.8% or $279,000 of the total budget is used to support the ASP.

The Director of the ORC manages the various programs in the ORC and is responsible for their implementation. The Administrator of the Radiological Health Services is part of the Health Program Office and reports to the State Health Officer, located organizationally under the Assistant Secretary for Program Planning and Development. He is responsible for recommending new programs or program changes to the Health Program Office, while providing program guidance and direction to the ORC Director.

The Office of Radiation Control is responsible for eight programs located within four operational sections. These are the Inspection, Licensing, Environmental Surveillance, and Special Projects Sections. There is also an Executive Director Section with administrative responsibilities. The programs are divided among the sections as follows (some programs are addressed by more than one section):

- Inspection Section
  Radioactive Materials (the Agreement State Program)
  X-ray Machines
  Low Level Waste Inspection

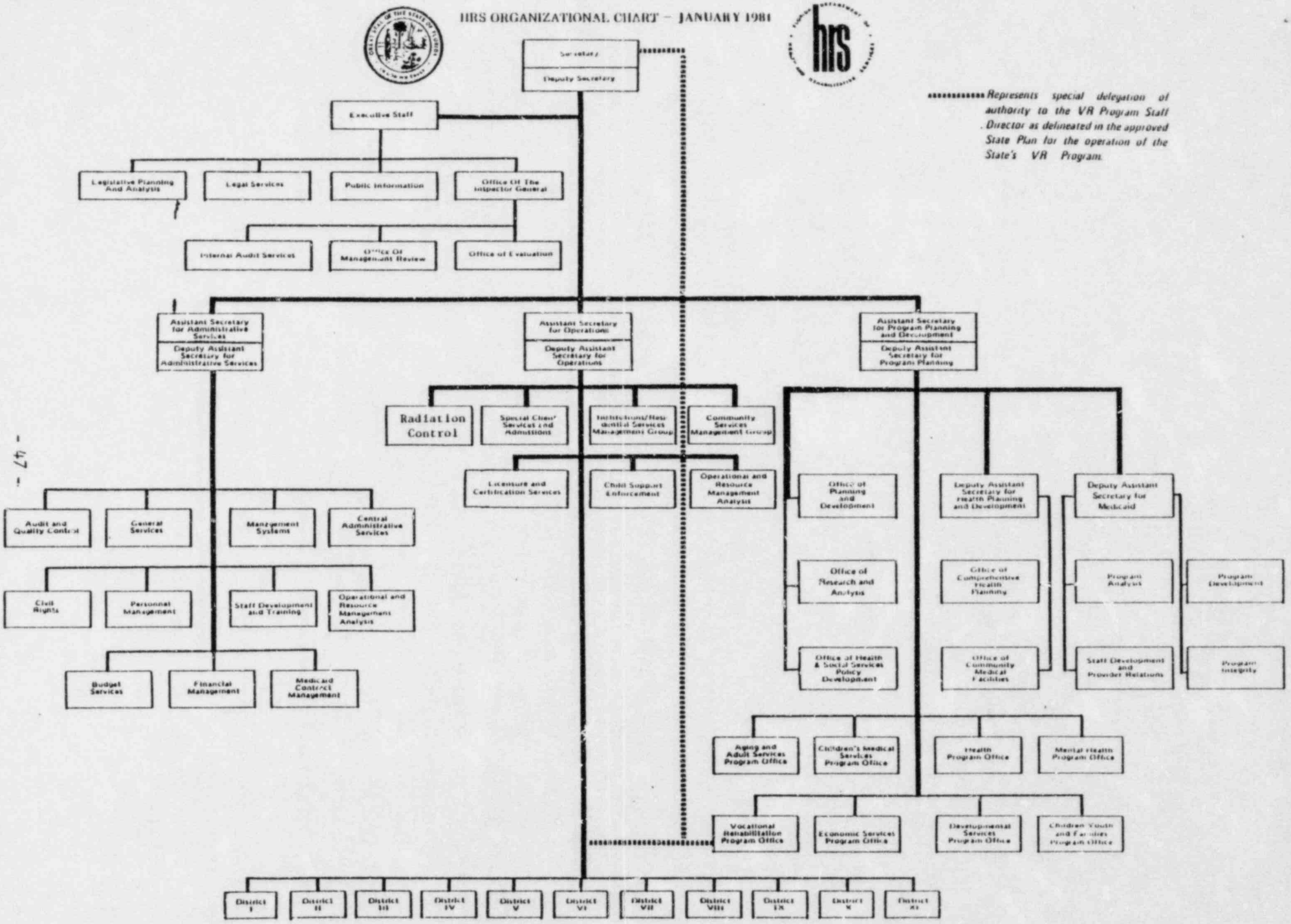

HRS ORGANIZATIONAL CHART – JANUARY 1981
Secretary
Deputy Secretary
Executive Staff
Legislative Planning And Analysis
Legal Services
Public Information
Office Of The Inspector General
Internal Audit Services
Office Of Management Review
Office of Evaluation
Assistant Secretary for Administrative Services
Deputy Assistant Secretary for Administrative Services
Assistant Secretary for Operations
Deputy Assistant Secretary for Operations
Assistant Secretary for Program Planning and Development
Deputy Assistant Secretary for Program Planning
Radiation Control
Special Client Services and Admissions
Institution/Residential Services Management Group
Community Services Management Group
Licensure and Certification Services
Child Support Enforcement
Operational and Resource Management Analysis
Audit and Quality Control
General Services
Management Systems
Central Administrative Services
Civil Rights
Personnel Management
Staff Development and Training
Operational and Resource Management Analysis
Budget Services
Financial Management
Medicaid Contract Management
Office of Planning and Development
Office of Research and Analysis
Office of Health & Social Services Policy Development
Deputy Assistant Secretary for Health Planning and Development
Office of Comprehensive Health Planning
Office of Community Medical Facilities
Deputy Assistant Secretary for Medicaid
Program Analysis
Program Development
Staff Development and Provider Relations
Program Integrity
Aging and Adult Services Program Office
Children's Medical Services Program Office
Health Program Office
Mental Health Program Office
Vocational Rehabilitation Program Office
Economic Services Program Office
Developmental Services Program Office
Children Youth and Families Program Office
District I
District II
District III
District IV
District V
District VI
District VII
District VIII
District IX
District X
District XI
Represents special delegation of authority to the VR Program Staff Director as delineated in the approved State Plan for the operation of the State's VR Program.

Figure 2

- Environmental Surveillance Section
  Emergency Response
  Surveillance around Nuclear Power Plants
  Safe Drinking Water
  Statewide Environmental Surveillance
  Low Level Waste Inspection
- Special Projects Section
  Certification of Radiological Technologists
  Low Level Waste Inspection
- Licensing Section
  Radioactive Materials
  Low Level Waste Inspection

Interrelationships with Other Agencies

Florida's executive branch is directed by the Governor and six cabinet members. The Governor and the cabinet members are elected to four-year terms. These cabinet members are the Attorney General, Secretary of State, The Comptroller, the Treasurer, and the Commissioners of Education and Agriculture, each one the head of a state agency. Jointly, the Governor and cabinet members oversee five other departments. However, some other departments are run by a Secretary appointed by the Governor. The DHRS is one of these departments.

Working within the framework of the DHRS, the ORC is delegated the full responsibility for radiation control in Florida that is statutorily given to the DHRS Secretary. The ORC interacts with other agencies by providing technical assistance to them in radiation control. An example of this assistance involves the Department of Environmental Regulation (DER), which has the lead in managing the State's public drinking water systems. As directed by Florida's Safe Drinking Water Act, a memorandum of agreement was signed between the DER and DHRS. Under this agreement, the DHRS performs radiochemical analyses of private and public drinking water supplies and certifies private and commercial laboratories performing radiochemical analyses. These duties have been assigned to the Environmental Surveillance Section of the ORC.

The ORC also works with the Department of Natural Resources (DNR), which is responsible for issuing mining permits in Florida. Through a memorandum of agreement between the DNR and the DHRS, the ORC conducts a premining gamma survey to determine whether the mining company must conduct pre- and post-mining surveys. Most

often, these mines are phosphate mines that may contain amounts of radium and related products in sufficient quantities to require monitoring and controls.

The Bureau of Disaster Preparedness (BDP) in the Department of Veteran and Community Affairs has the lead for emergency disaster response, while the ORC provides the radiological expertise where needed. The BDP and the ORC conduct annual exercises around each nuclear power plant site. Forty-five of the sixty-three ORC staff have duties in those exercises, including thirty-six of the professional staff.

Legislative Oversight

The legislature maintains oversight of the ORC through legislative committees and the Auditor General. The Auditor General's Office is an arm of the Florida legislature similar to the Congressional General Accounting Office. The Office reviews management structures and conducts other aspects of program evaluation for the legislature.

The radiation control program underwent careful scrutiny in the development of HB 1066, primarily from the House Energy Committee. The House and Senate Health and Rehabilitative Services Committees are responsible for legislative oversight of the DHRS, including the work of the ORC. The House Energy committee became involved with the ORC during consideration of HB 1066, because the majority of the radioactive waste addressed by the bill is generated by utilities.

In Florida, under the Florida Sunset Act, regulatory statutes expire in five years unless renewed. The basis for the ORC authority in radiation contol, the Florida Radiation Control Act is scheduled to be reviewed by October 1, 1984.

Budget Development

The development process for the ORC budget is similar to that process in other state governments. Working closely with the ORC section heads, the ORC Director develops a budget that follows the budget guidance and instructions received from the DHRS Secretary. This guidance is prepared in turn from guidance for the program received from the Governor's office. The ORC's instructions may reflect priorities estabished by the Governor and the DHRS Secretary.

Instead of using zero-based budgeting, current funding levels are used as a basis for the new budget. The budget is organized into "budget issues." Any variation from the current budget level is a distinct budget issue. Budget issues fall into three categories: program continuation; improved programs, or enhancement of existing authorized programs; and new programs, which are new functions not previously carried out by the ORC.

Review of budget issues by the DHRS Secretary and the Assistant Secretary for Operations becomes more intense for improved and new program issues.

The fiscal year begins on July 1. The DHRS budget process for the fiscal year begins about sixteen months before, in February of the previous calendar year. At that time, public hearings are conducted on the expenditures of all departmental funds and any federal and other funding the agency receives. Each of the three assistant secretaries is given a target for money and positions as well as goals and program priorities. These targets are passed on to the programs under their individual authority. The DHRS working group, which includes the Secretary and assistant secretaries, reviews the budget issues. The budget issues are arranged in order of priority, based on the broad goals set by the Governor and the legislature. The Secretary may set a working limit on the percentage increase of the budget, and budget issues are approved within that overall limit.

The Governor's Office of Planning and Budget (OPB) has a policy analyst that works closely with the ORC, as well as other offices in the DHRS, throughout the budget development process. That analyst provides technical review of the budget, informally while it is still in the DHRS, and formally after the Secretary submits it to the Governor.

A preliminary submission is sent to the OPB in early October. That office makes technical comments and sends the budget back to the DHRS, and the formal departmental submission is made by November 1. Revenue estimating conferences are held periodically during the year, and this information is used by the Govenor to prepare revenue estimates and an approved budget for the legislature, since Florida must have a balanced budget. The budget request is sent to the legislature forty-five days before the session begins. The budget request sent by the Governor to the legislature includes the agency's budget request and the Governor's recommended level of funding. The Governor has the authority to veto any line item in the Appropriations Act and may hold funds in reserve until the department provides additional detail on the intended use of those funds.

The State operates on a two-year budget cycle. If there are off-year appropriations made, the starting point is the funding level included in the two-year budget.

Program Evaluation

Besides the program review that results from the budget development process, there is constant review of the ORC within the DHRS. Formatted quarterly reports are sent to the Assistant Secretary for Operations, the DHRS Secretary, and the Governor's office. These reports cover a series of qualitative and quantitative performance factors. These performance factors include the number of x-ray and materials licenses, inspections and a

qualitative audit of a number of inspections. The audit is generally conducted by the section supervisor.

Funding Mechanisms

Fees support about 75% of the program, with the remainder coming from other sources, including general revenues. In FY 83, the fees collected will amount to about $1.575 million. The money from fees goes into the Radiation Protection Trust Fund for support of ORC activities. These monies, used primarily for licensing and inspection of radioactive materials, cannot be used by the program unless first appropriated by the legislature.

In addition to the fee schedule, low level waste generators pay $1.25 per cubic foot for waste shipped to commercial low level waste management facilities. This money is deposited in the Low Level Radioactive Waste Trust Fund to finance the low level waste inspection program.

Organization of ORC

The Office of Radiation Control is divided into an Executive Direction Section and four operational sections: Licensing, Inspection, Environmental Surveillance, and Special Projects Sections. In addition, several county governments are involved in the program. The work of the ORC will be reviewed through a discussion of these operational sections. The organizational chart of ORC is included as Figure 3.

Licensing Section

The Licensing Section issues and renews licenses for all handlers of radioactive materials under the State's jurisdiction. Seven to eight hundred licensing actions, including renewals, are made annually. The licensing process begins with a request for an application. The application form is sent to an applicant with instructions. Completed applications are assigned to specific reviewers. Within thrity days of receipt of an application, the ORC informs the applicant of information gaps, other problems with the application, or issues the license. When the applicant's reply to fill those gaps is received, the ORC has ninety days to issue or deny the license. All information, including the application, correspondence, and blueprints, are placed in a master file at headquarters. Identical files are kept at the regional inspection offices, with the occasional exception of large drawings or blueprints.

Fifty to sixty pre-licensing investigations are conducted annually. These are usually for new applicants. Pre-license investigations are conducted for complex applications or

Health & Technical Support Services (OPH)

RADIATION CONTROL (OPHR)

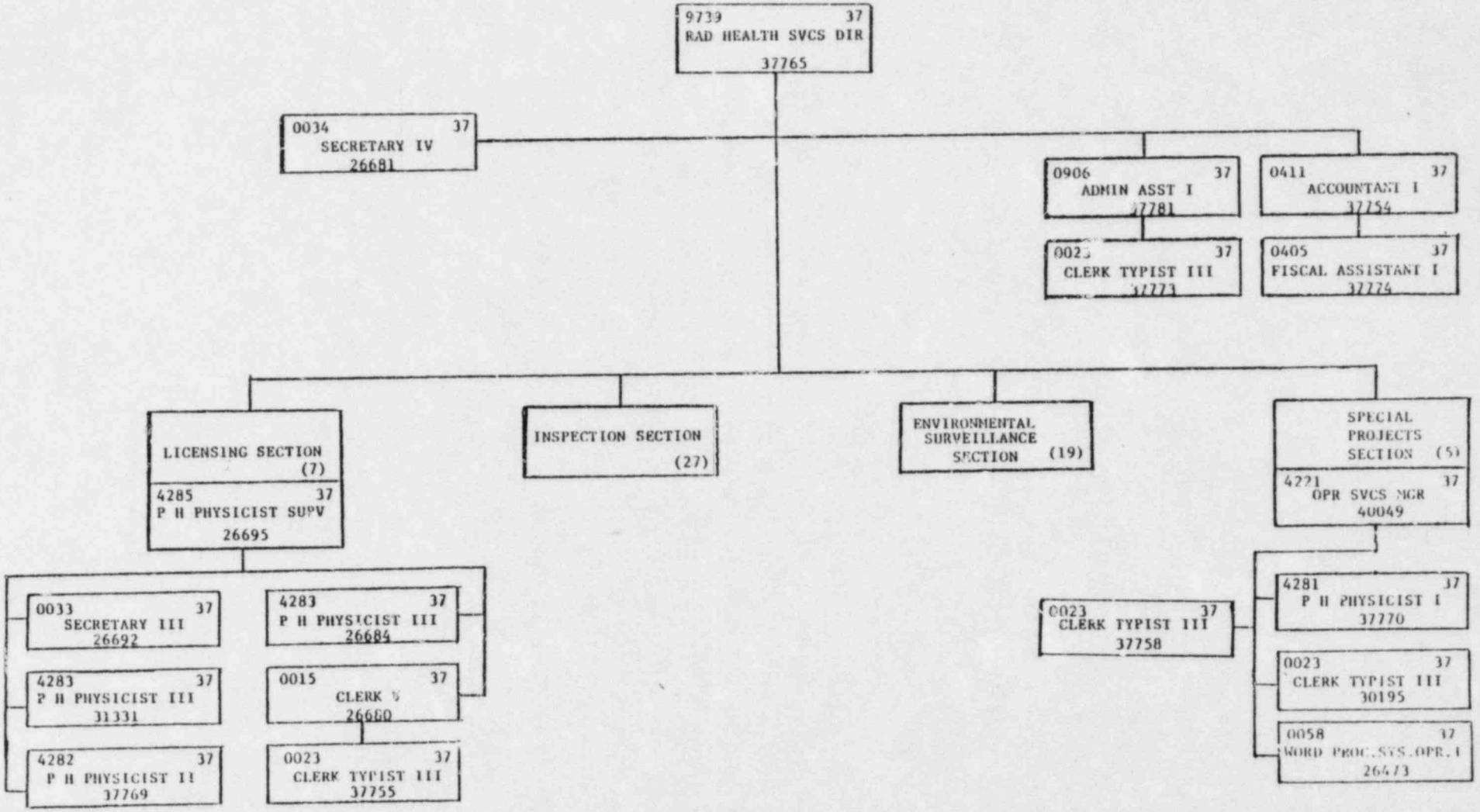


Figure 3

for applicants with no previous experience with the ORC. Licenses are issued and renewed for five-year periods, unless the applicant requests a shorter license period, or the ORC believes a shorter period is warranted.

Inspection Section

Licensees are inspected at a frequency determined by the potential hazard. Inspectors are responsible for determining that radioactive material licensees comply with the license and other regulatory requirements. The State also registers and inspects x-ray machines, of which there are over 18,500 statewide. Inspectors also have the lead in responding to emergencies related to radioactive materials. The organizational chart for this section is included as Figure 4.

When inspecting radioactive materials licensees, the inspection may be unannounced. The inspector evaluates training of workers, procedures, the facilities and the equipment. Before leaving the licensee's site, the inspector has an exit interview with the licensee's management to inform them of any violations.

The ORC may enter into agreements with counties, allowing the county health units to inspect ORC materials licensees and x-ray registrants in that county. The county health physicists inspect users of radioactive materials and x-ray machines, verify the certifications of radiologic technologists, and assist the ORC in cases of radiation accidents. Specific criteria have been established for these agreements. There are presently three agreement counties (Dade, Broward, and Pinellas).

To fund the agreement county program, the county receives eighty percent of all x-ray machines license fees received from that county and the portion of the annual materials license fees that is used for inspections, which is about 60% of the fee. Quality control is maintained by the ORC through an annual audit of the agreement county inspectors.

If there is an imminent health and safety danger to workers or the public, the inspector will contact his supervisor, who recommends the action to be taken. There is authority for the DHRS Secretary to issue orders in an emergency and to impound radioactive material. If violations are minor, a form reporting them is completed by the inspector and is given to the licensee. If the problems are more severe, a letter describing the violation is sent to the licensee specifying the number of days within which the violator must take corrective action. Upon reinspection, if the problem has not been adequately corrected a second letter is sent and the licensee has to defend or correct the situation. If corrective action is still not taken, the ORC may file an intent to issue an

Health and Technical Support Services (OPH)
Radiation Control (OPHR)
INSPECTION SECTION

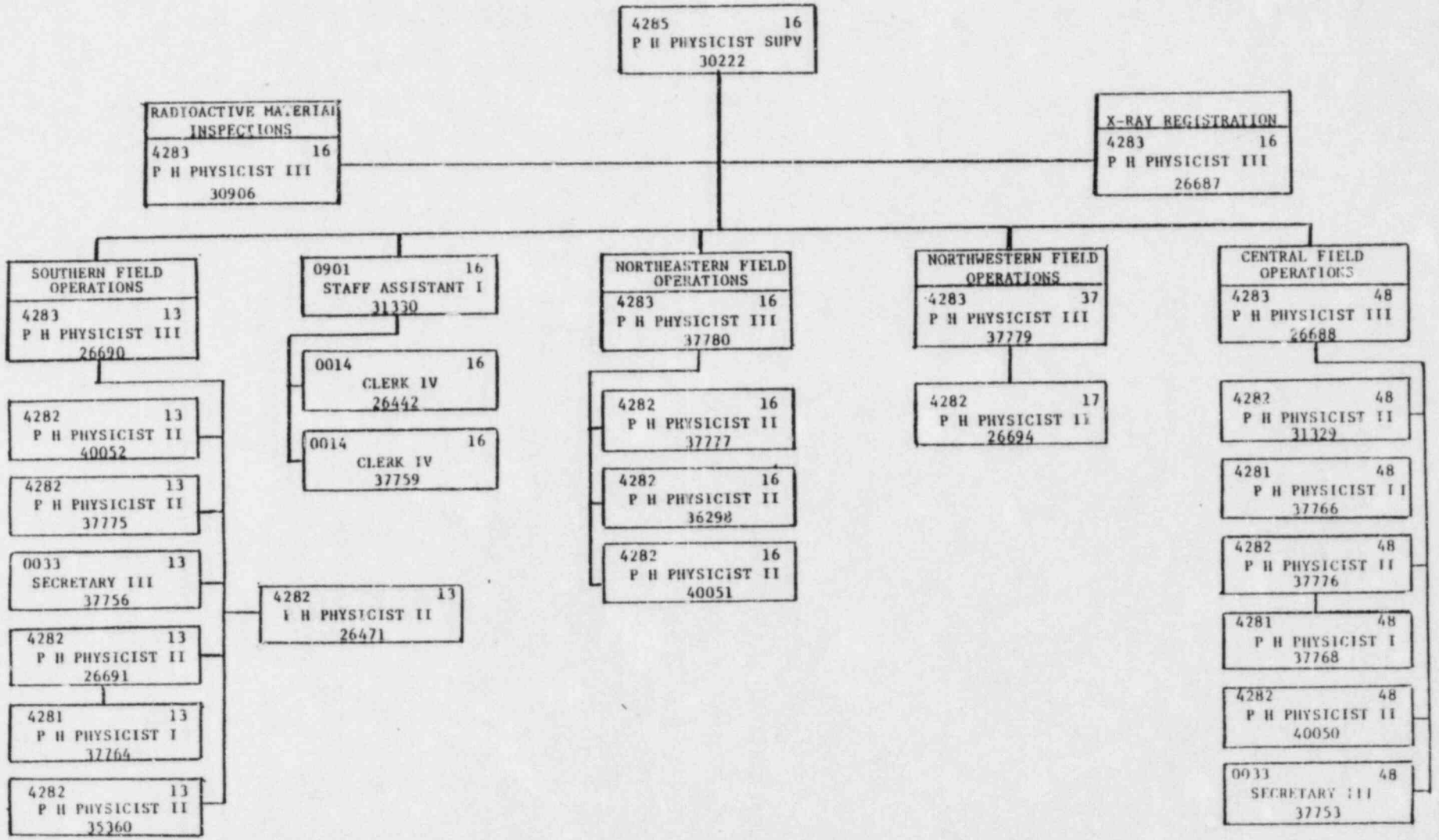


Figure 4

administrative complaint against the licensee. The licensee has thirty days to request an adminstrative hearing.

In administrative hearings, the Department of Administration appoints a hearing officer, who has the authority to make a decision in the situation. The hearing officer can recommend a change in the license, including modification, suspension, or revocation, or that the ORC take the situation to civil or criminal court. The purpose of a civil case would be to recover money, such as used for cleanup of an accident. A criminal case would involve a willful effort to harm, normally a difficult case to prove. If the situation goes to court, the district attorney having jurisdiction in the licensee's location usually handles the case. The ORC has the authority to assess civil penalties up to $1,000 per day per violation

The ORC has a designated attorney in the DHRS Office of Legal Service for legal assistance.

The ORC role in emergency response at nuclear power plants is the responsibility of the Environmental Surveillance Section and will be discussed. For incidents not occurring at nuclear power plants, inspection personnel are sent to the location to assess the severity of the incident and to recommend whatever protective action is needed. Notices of radiation incidents are called in to a twenty-four hour emergency telephone number at the health physics laboratory in Orlando. Notices of all incidents are relayed to the inspectors of the regional office in which the incident occurred and the ORC Director.

The inspector remains at the site until he is confident that the hazard is no longer present. If cleanup is required involving materials or waste being shipped, the shipper or consultant used by the shipper is contacted to conduct the cleanup. Inspectors have a number of consultants' names for use in such situations.

Environmental Surveillance Section

The Environmental Surveillance Section is responsible for four programs: emergency response for nuclear power plants, environmental monitoring around nuclear power plants, radiochemical analyses of drinking water, and statewide surveillance. The organizational chart for this section is included as Figure 5.

The Environmental Surveillance Section trains state and county personnel for emergency incidents, in conjunction with the Bureau of Disaster Preparedness. The Section staff monitors the off-site environment during an incident, collecting samples and computing individual dose projections. A mobile emergency response laboratory is used in the monitoring. The data is used to recommend protective action to the Governor or his representative.

Health and Technical Support Services (OPH)
Radiation Control (OPHR)
ENVIRONMENTAL SURVEILLANCE SECTION

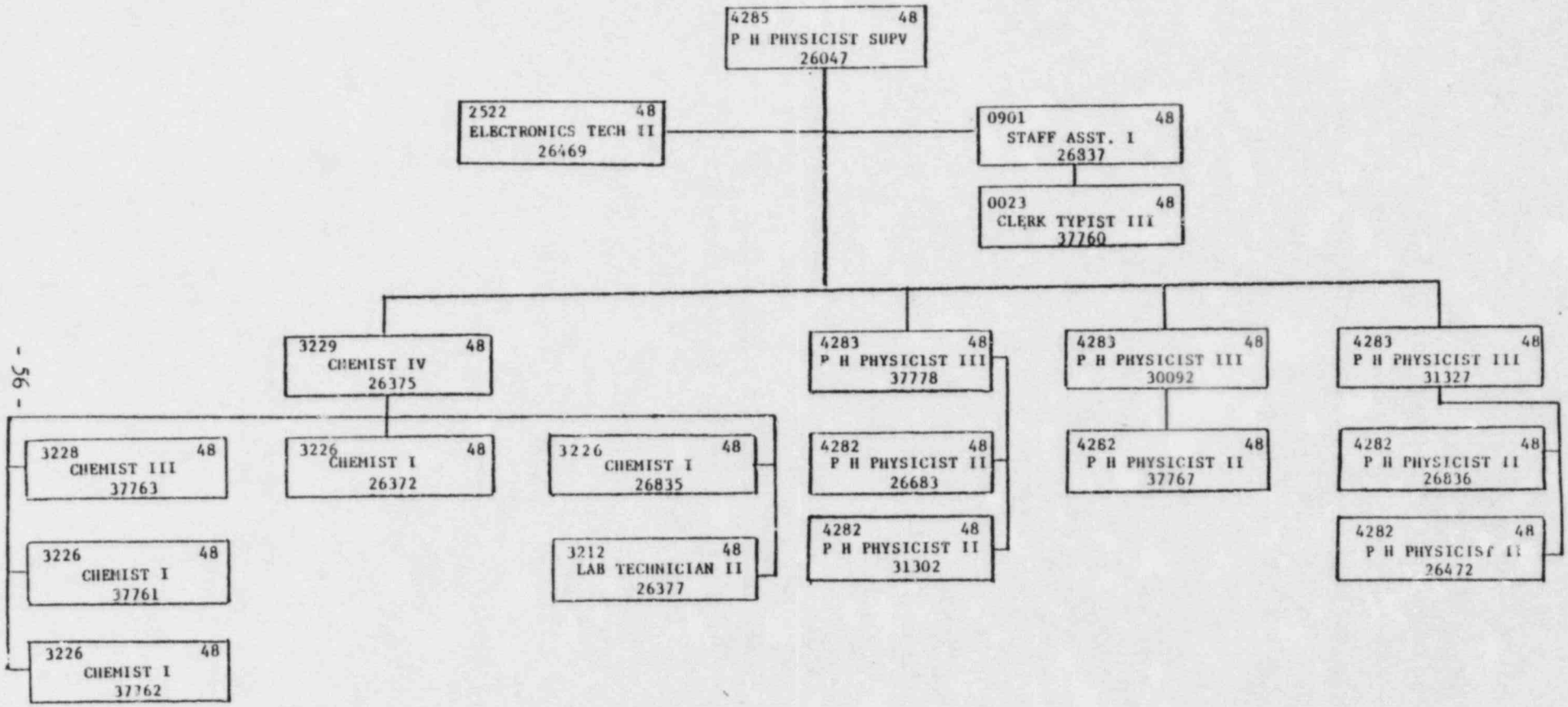


Figure 5

In 1969, the utility companies contracted with the ORC to conduct radiological environmental surveillance around Florida nuclear reactor sites. Over 3,500 samples per year are collected of the air, flora, fauna, soil, and external gamma radiation in the reactor areas. The samples are analyzed by the ORC's laboratory in Orlando. The data on radioactivity levels is shared with the power plants.

The annual cost of the program is about $250,000 with the budget negotiated by the ORC and the utilities annually. Six full-time positions in the Section are funded in this way, allowing constant surveillance in those areas.

The Environmental Surveillance Section works with the Department of Environmental Regulation (DER) in a four-year cyclic analysis of public water systems in the State. The Section staff augments the DER with the analysis and certifies commercial labs in the State to conduct analyses. In 1982, the Section began a long-term project to analyze the water radioactivity in private wells. Fifty wells per county in the State will be checked. Along with finding water supplies with excessive quantities of radioactive contaminants, these analyses will provide a statewide profile of private drinking water quality.

The statewide surveillance program monitors natural radioactivity, usually resulting from mining operations of deposits of heavy minerals or phosphate. One aspect of the program is to collect information on a county basis to provide baseline data and to locate elevated levels of radioactivity. This program also conducts pre- and post-mining gamma surveys for mines, primarily phosphate mines, to determine whether the radioactivity levels increased because of mining.

A major source of natural radioactivity in Florida is through the mining of phosphate, which contains radium and related products. Ninety percent of the world's phosphate, a major element in fertilizer, is mined in Florida, where it is obtained through strip-mining. In reclaiming the land, mining companies have mixed residue with the overburden. This mixture may have a higher level of radioactivity because of the radium which is brought to the surface as a result of phosphate mining. Additionally, the radon gas being generated from the radium is also a problem. The Environmental Surveillance staff monitors these areas and recommends corrective action.

The health physics laboratory is located in Orlando. There is counting equipment in the other four inspection offices. This equipment is used by inspectors to determine the presence of radioactivity in samples collected during inspections.

Special Projects Section

This Section was created in 1981 to place in one section the one-time projects and small program efforts that proved to be time-consuming in the other three operational sections. This Section prepares, with the input of the other sections, new rules, regulations, and proposed legislation. To be adopted, proposed regulations are sent from the Special Projects Section to the ORC Director, the Assistant Secretary, the Inspector General, and to the Office of Legal Services for review and approval. The proposal is printed in the Administrative Weekly, Florida's equivalent to the Federal Register. A public hearing may be held, if requested.

The Special Projects Section is also responsible for the certification of radiologic technologists and administration of the low level waste inspection program.

Other Program Areas

The ORC recognizes four aspects of training for health physicists and radiochemists; orientation, annual, federal, and special. The orientation training consists of reviews of the administrative aspects of the office, such as travel procedures, and a one-week course in basic principles of radiation control.

The annual training consists of a week-long course in areas where additional training is needed by the health physicists and radiochemists, as identified by ORC. The purpose of this training is to strengthen areas within the various programs.

The federal training is provided by federal agencies throughout the year. These agencies include the Nuclear Regulatory Commission, Environmental Protection Agency, Food and Drug Administration, and Federal Emergency Management Administration. Special training is provided by consultants, universities, and other federal agencies to fill gaps in staff expertise. Individuals attending these courses then train other staff members.

In addition to the above training, the ORC provides on-the-job training for staff. An example of this training is that received by the inspectors. Inspectors must have a degree in a physical or biological science. Their on-the-job training usually lasts from six to twelve months.

Training is progressive, starting with simple inspections such as dental x-ray machines and continuing more complex x-ray inspections. As inspectors become more competent, they may be trained for materials license inspections.

Inspector trainees begin by accompanying more experienced inspectors. The Inspection Section supervisors determine whether a trainee is fully trained, usually by a senior inspector observing the trainee in an actual inspection.

The Health Program Office (HPO) has a fourteen member technical advisory council. Three members of this council, two physicians and one physicist, are designated to serve as a technical advisory committee for the ORC. The advisory committee meets quarterly, usually the day before the quarterly HPO council meeting.

Public information responsibilities are managed by the DHRS Office of Public Information. This Office handles press inquiries and coordinates responses in areas of political sensitivity or visibility. The ORC Director encourages the regional staff to accept invitations to speak. Through these efforts, the ORC hopes to educate the concerned public.

STATE PERSONNEL INTERVIEWED IN THE PREPARATION OF THIS REPORT

Mr. Ulray Clark, Administrator, Radiological Health Services, Department of Health and Rehabilitative Services.

Mr. Jim Crona, Budget Analyst, Office of the Assistant Secretary for Program Planning and Development, Department of Health and Rehabilitative Services.

Mr. Jay Hakes, Director, Governor's Energy Office.

Dr. Lyle Jerrett, Director, Office of Radiation Control, Department of Health and Rehabilitative Services.

Mr. Larry Jordan, Office of the Assistant Secretary for Operations, Department of Health and Rehabilitative Services.

Mr. John Lanham, Inspection Section, Office of Radiation Control, Department of Health and Rehabilitative Services.

Mr. George Meier, Staff Director, Florida House of Representatives Energy Committee.

Ms. Christie Moore, Policy Analyst, Governor's Office of Planning and Budgeting.

Mr. Ben Warren, Licensing Section, Office of Radiation Control, Department of Health and Rehabilitative Services.

Agreement State Program: Texas

History

Texas has been part of the Agreement State Program since March 1, 1963 as authorized by the Texas Radiation Control Act. This Act, effective on September 1, 1961, designated the Department of Health as the radiation control agency with authority over source materials, by-products materials, and special nuclear materials in quantities insufficient to create a critical mass. The state has never considered withdrawing from the program, and the staff and budget levels have remained fairly constant until recently.

To give a more complete picture of Texas' radiation control program, this report will include, in addition to the Agreement State Program, aspects of Texas' low level waste (LLW) management program for waste disposal.

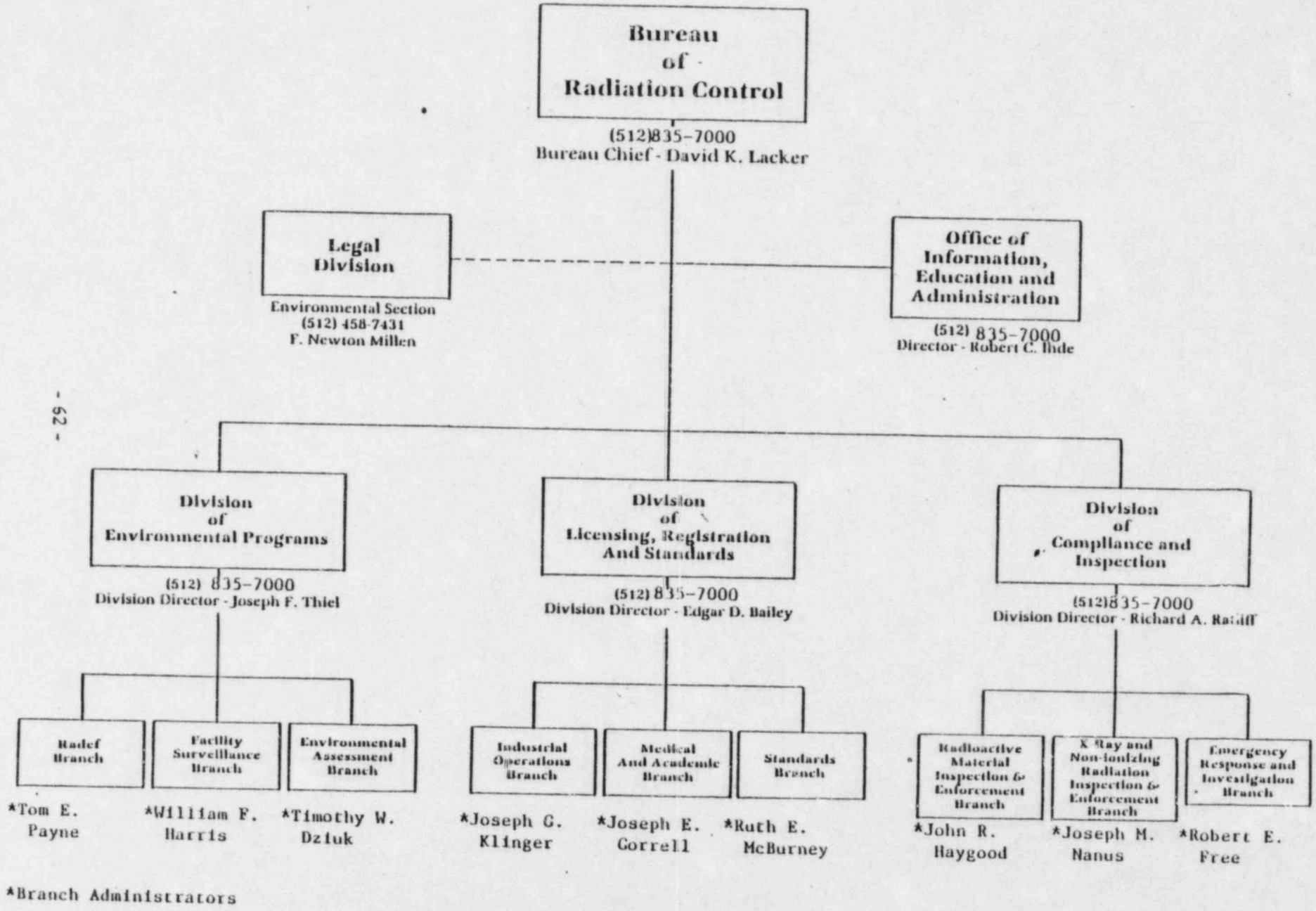
Structure of Texas Government

Texas does not have a cabinet system of government. Following Reconstruction, a new state constitution was approved that diluted the power of the governor. The governor can appoint agency board members but few agency directors. Several agencies have elected directors, such as the Agriculture Department. Thus, gubernatorial control over an agency is usually exercised only indirectly. For instance, the Commissioner of Health is appointed by the eighteen-member Board of Health and serves at their pleasure. The board members are appointed by the governor for staggered terms.

Department of Health

The Department of Health is divided into six divisions, each headed by an associate commissioner. The divisions are; Community and Rural Health, Personal Health Services, Preventable Diseases, Special Health Services, Support Services, and Environmental and Consumer Health Protection. The radiation control program is located within the latter division in the Bureau of Radiation Control (BRC). An organizational chart of the Bureau is included as Figure 1.

The Bureau of Radiation Control was raised from a division to a bureau in Department of Health in 1981. The BRC is under the Associate Commissioner for Environmental and Consumer Health Protection and has three divisions; Environmental Programs (staff of twenty-five), Licensing, Registration, and Standards (staff of thirty-one), and Compliance and Inspection (staff of fifty-nine). There is also an Office of Information, Education, and Administration with a staff of nineteen which oversees public information and training.



*Branch Administrators

Figure 1

An eighteen-member Radiation Advisory Board consisting of professionals in the radiation field appointed by the governor offers advice to BRC. Policy decisions are made by the Board of Health.

The Office of Information, Education, and Administration is di ided into four programs; Public Information and Training, Reference and Records, Personnel and Property, and Financial Analysis. The Division of Licensing, Registration, and Standards issues licenses and develops new rules and regulations through its three branches; Industrial Operations, Medical and Academic, and Standards.

The Division of Environmental Programs conducts environmental monitoring and develops detailed environmental assessments for all uranium mining and waste disposal applications. This division has three branches; Radiological Defense, Facility Surveillance, and Environmental Assessment.

The Division of Compliance and Inspection conducts inspections and emergency responses. Regional office personnel are a part of this division. There are three branches in this division: Radioactive Material Inspection and Enforcement, X-Ray, Non-Ionizing Inspection and Enforcement; and Emergency Response and Investigation.

These offices in the BRC have responsibility for LLW management, with the exception of disposal and those joint permitting responsibilities for deep well injection shared with the Department of Water Resources.

Office of Information, Education, and Administration

Public information and education are conducted by two public education specialists in the Public Information and Training Program in this office. The branch is developing a library of films and videotapes for topics about radiation that are geared to laymen. The organizational chart for this office is included in Figure 2.

Training for BRC staff is conducted on a continuing basis through short courses developed in-house by the staff. An example is one on the operation of nuclear reactors developed by a staff member who conducted a similar course when he was with the Nuclear Regulatory Commission. He is also an adjunct professor at the University of Texas so those attending the course can receive graduate-level credit for it.

The rapid expansion of the staff in the past year has caused growth pains that were eased by plans for training. The BRC contracted with the School of Engineering at the University of Texas to give a four-week, graduate-level course on radiation health to new professional staff. This eight-hour-a-day course was followed by a two-week Department of Health course carried out with industry participation to educate the new staff on the operation of different licensees and Department procedures. The cost of this six-week

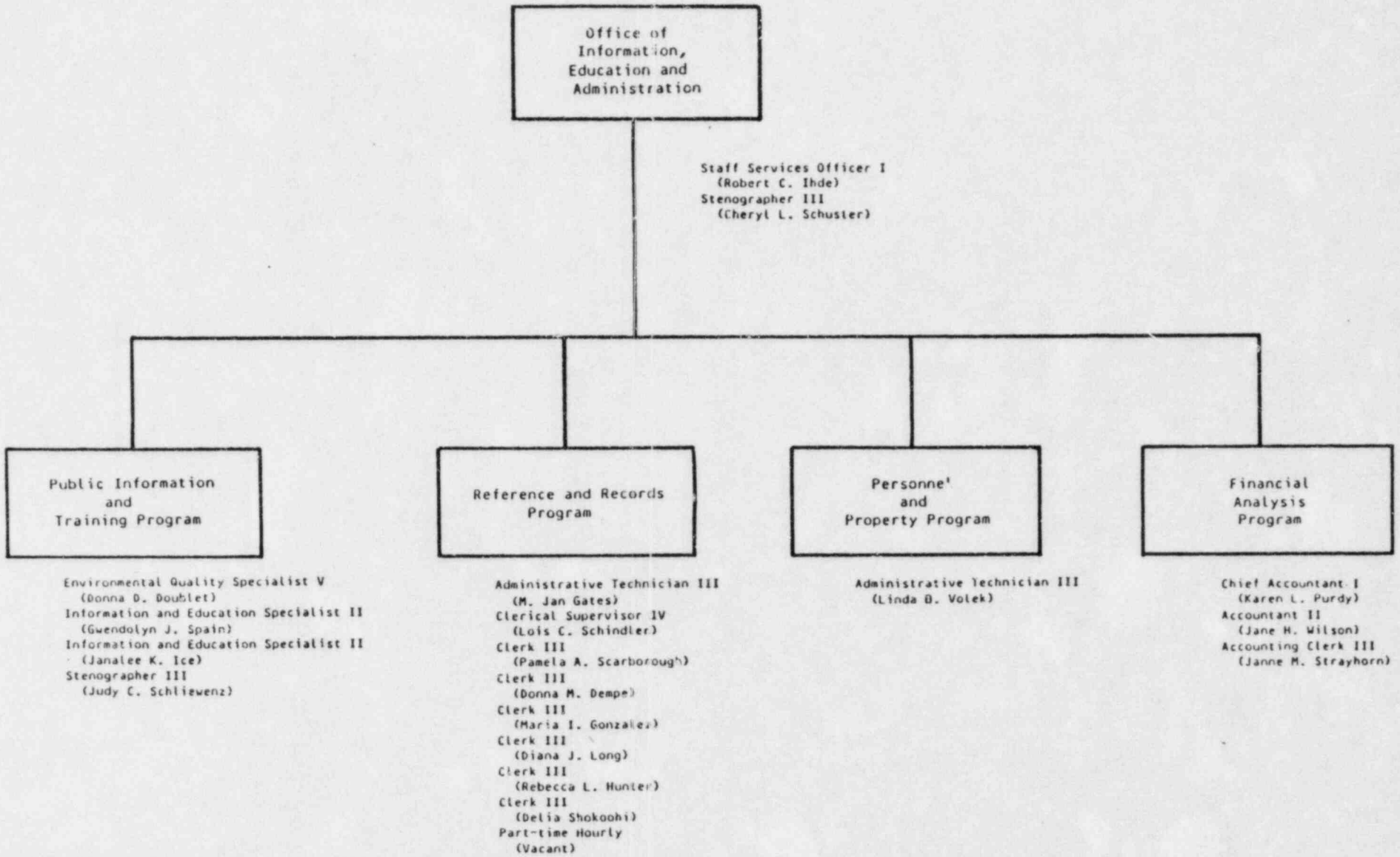


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Figure 2

training for twenty-eight people was $10,000, excluding salaries which were paid largely to the School of Engineering. The course is one presently offered as a summer course at the school. NRC also made special arrangements to present its one-week inspection procedures course for new Texas inspectors in Arlington, Texas.

Division of Licensing, Registration, and Standards

Rules and standards are developed by the Legal Actions and Standards Development Program in the Standards Branch. The organizational chart for this division is included as Figure 3. In response to staff drafts of new or revised standards, the Radiation Advisory Board appoints a committee from the Board to review the drafts. Though its purpose is primarily review, in a recent case, a committee proposed the standards, drafting nine versions and talking to all interested parties in its development. A thirty-day comment period follows the proposed rule's publication in the Texas Register, after which a public hearing on the proposal is held by the BRC under the direction of a hearings examiner. The BRC staff then addresses all comments and revises the proposals as needed. This revised proposal is taken to the Radiation Advisory Board for approval and finally to the Board of Health. Because the Radiation Advisory Board is advisory only, the staff may take a proposed rule to the Board of Health for approval without the Advisory Board's approval. The rule is published in final form in the Texas Register and is effective twenty days after this publication.

The licensing process begins when the applicant submits a standard application form to the BRC. The application should include the procedures and equipment to be used, the resumes of physicians, and the applicant's safety program. The application is reviewed by the Licensing Division staff and inconsistencies and gaps are identified and brought to the applicant's attention. The application and supplements, if any, are reviewed again and, if found acceptable, the license is issued.

If the applicant is industrial rather than medical, the application is similar except that greater emphasis on emergency and operating procedures is required.

Division of Environmental Programs

With uranium mining, source manufacturing or waste processing, the possibility of releases into the environment exists so environmental data is needed. The organizational chart for this divison is included as Figure 4. The Environmental Assessment Branch of the Division of Environmental Programs conducts a site visit to the area and develops a complete environmental assessment to check the environmental data included in the license application. A safety analysis is conducted of the applicant's program simultane-

As Budgeted

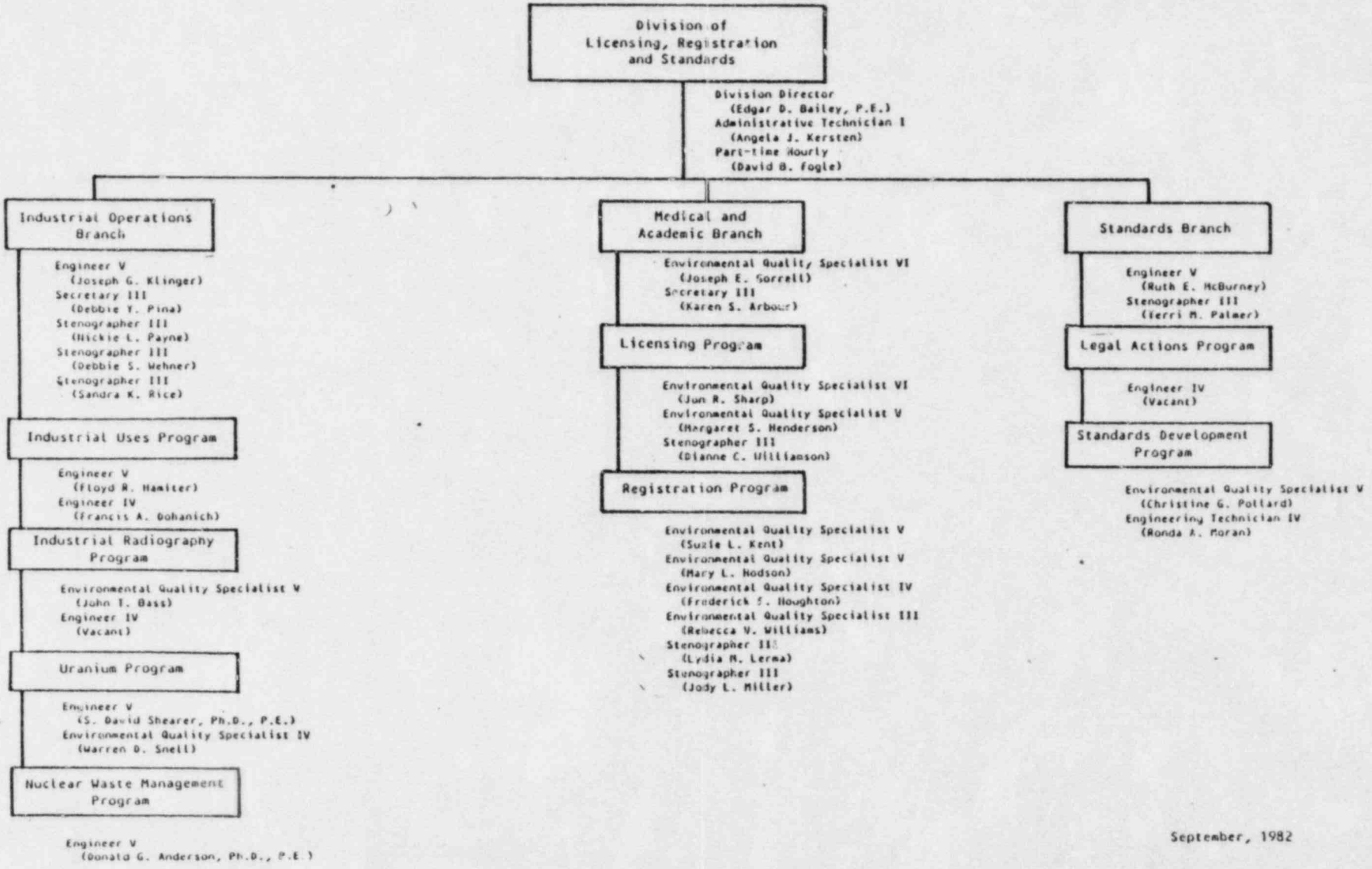

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Figure 3

As Budgeted

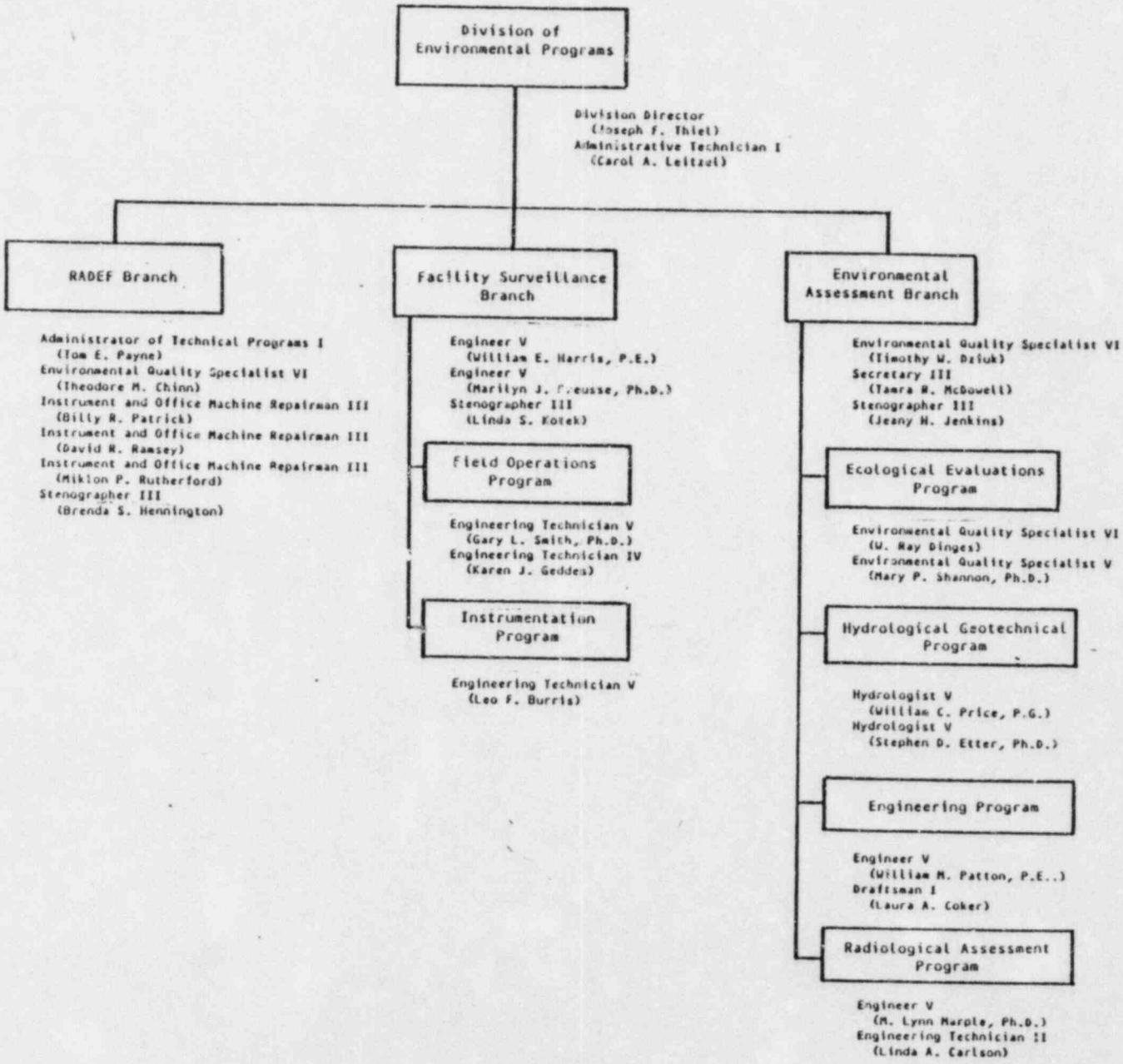

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Figure 4

ously with the environmental assessment. Notice that the assessment has been completed is published in the Texas Register with a thirty-day comment period. If a hearing on the assessment is requested, it must be held. Although there are about three environmental assessments conducted annually, eighteen or nineteen are expected in the next three years. The sites are usually adjacent, making the environmental assessment somewhat easier.

The Facility Surveillance Branch monitors facilities with potential releases, determining the frequency and extent of the monitoring actions.

The Radiological Defense Branch contracts with the federal government to maintain equipment needed for civil defense purposes.

Division of Compliance and Inspection

The Emergency Response and Investigation Branch addresses emergencies such as contamination of facilities or the environment and overexposures to individuals. The organizational chart for this division is included in Figure 5. The incident and accident teams in this division work closely with the regional staff. In the case of an incident at a nuclear power plant, eighty-five of the headquarters staff have assignments and have been trained on plant operation.

The priorities of compliance inspections are set according to the type of operation authorized by the license. Mills are inspected every six months as are major medical facilities with a broad license. Large medical licensees without a broad license are inspected annually while small medical licensees are visited every two years. Every license is inspected at least once every three years.

Most inspections are conducted by staff in the ten of twelve Department of Health regional offices where the BRC has staff, however, the central office does inspections of uranium mill sites. All inspectors' reports receive supervisory review by BRC to insure consistency among them.

Legal enforcement is handled by three attorneys and two legal secretaries in the Department of Health Office of General Counsel. Though organizationally situated there, the BRC has first call for their services and this arrangement has never caused delays for the BRC.

The legal enforcement process is begun with a serious violation. If the possibility of overexposure exists, immediate measures are taken. The normal process for correction of violations, such as procedural violations with no health risks, is as follows.

If license violations are found during an inspection, the licensee is informed by written notice and is given thirty days to respond and describe the steps it has taken to

As Budgeted

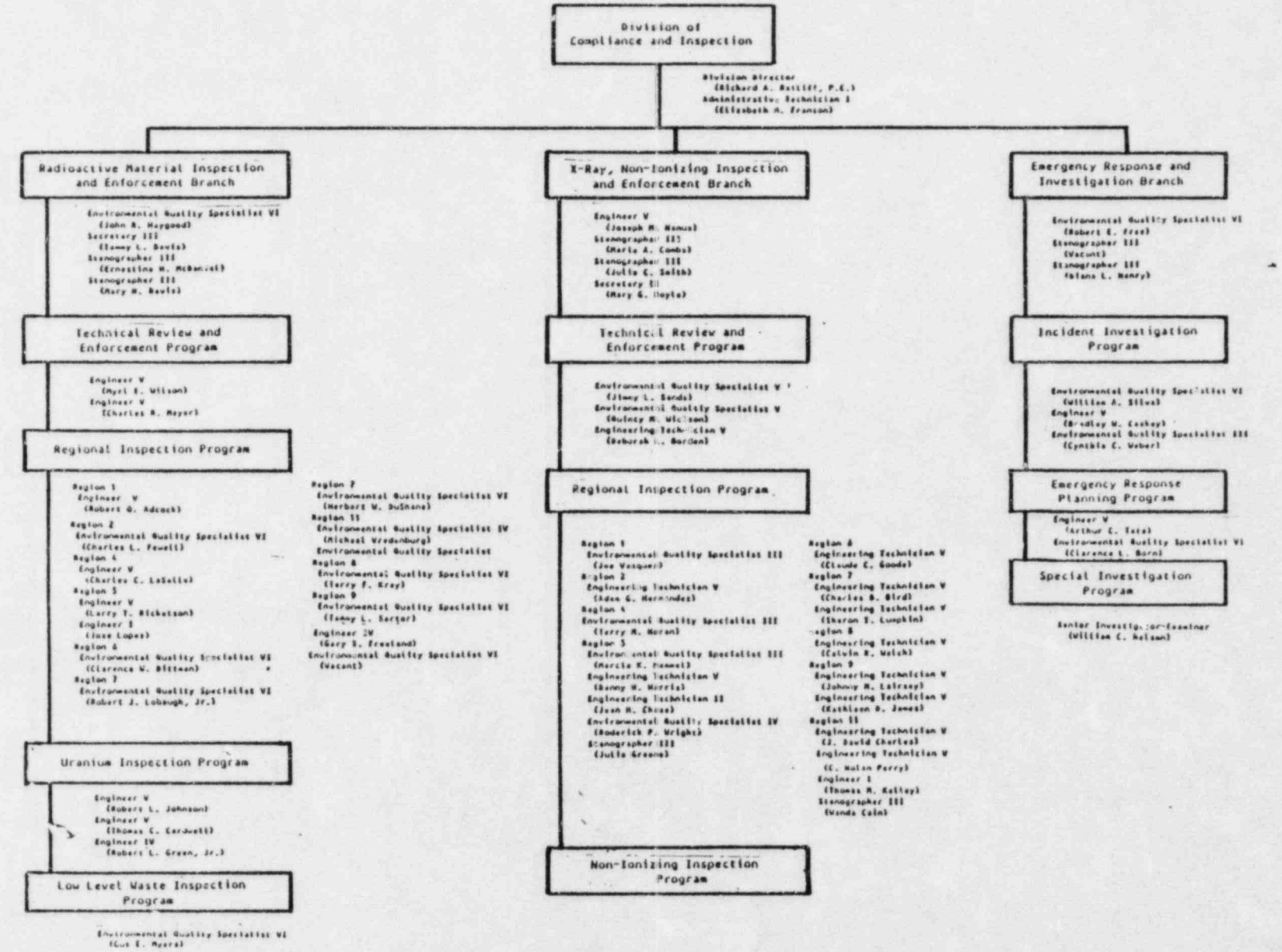

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Figure 5

correct it. If the corrections are not considered adequate upon reinspection, further action by the licensee is requested. If there is no response, another letter is sent with twenty days for the licensee to respond. If there is still no response, a third letter is sent with ten days to respond. If the violation persists, the licensee's management are called in for a conference with the division director and staff in Austin and are informed that if the violation is not corrected, a hearing may be conducted at which they must show cause why their license should not be restricted or revoked. Most cases do not have to go beyond this point.

The hearing may be held or the licensee may agree to a consent order on violation correction before the hearing. If the hearing is held, the hearing examiner issues a proposal for a decision. The licensee may file a rebuttal brief. The BRC director makes the decision on the final action. If the licensee disagrees with the decision, it can appeal to the state district court. Texas has authority to apply civil penalties up to a maximum of $25,000 per violation. They are imposed through civil court action.

Relationships With Other State Agencies

The Commissioner of Health interacts at an executive level with other agencies by serving on the Texas Energy and Natural Resources Advisory Council (TENRAC), which is co-chaired by the governor and lieutenant governor and includes legislators, statewide elected officials, and citizens. Established in 1979, TENRAC makes recommendations regarding energy and natural resources policy and has a large staff to assist the Council. TENRAC also has a seventeen-member Advisory Committee on Nuclear Energy on which the Commissioner of Health serves. This committee was instrumental in the development of the 1981 legislation.

The two state agencies that the BRC works with closely are the Department of Water Resources (DWR) and the Texas Railroad Commission. The BRC and the DWR interact to the extent that they jointly issue permits for in-situ mining of uranium. The two agencies try to issue permits concurrently and are developing a memorandum of understanding (MOU) which has been requested by NRC to formalize the process. At this time the two agencies conduct separate hearings to avoid potential legal problems since without an MOU, a hearing examiner appointed by one of the agencies cannot issue a proposal for a decision that will be binding on the other.

The Railroad Commission regulates railroads and the oil and gas industry in Texas and has been given authority over strip mining. Thus, the BRC and the Railroad Commission interact in regard to uranium exploration and surface mining of uranium.

There are no discussions on an MOU at this time but NRC has pointed out the desirability of one.

The Department of Public Safety (DPS) has regulatory authority over the transportation of hazardous waste. This authority does extend to radioactive materials but the DPS does not routinely monitor transport of this waste. The BRC checks vehicles carrying this waste to see that it is properly packaged and that the trucks are adequately marked as carriers of radioactive waste. Two companies are reported to be responsible for transporting ninety-eight percent of the waste in Texas to storage and disposal sites. They use sole-use vehicles and provide the drums and packaging instructions.

In addition, the BRC gives ten state agencies an opportunity to comment on the permitting of any waste storage or disposal site. These agencies include the Bureau of Economic Geology at the University of Texas, Air Control Board, Historical Commission, and the Parks and Wildlife Commission.

LLW Disposal Authority

The Texas Low Level Waste Disposal Authority was established by S 1177 as a separate state agency. The Authority staff reports to the six-member Board which is appointed by the governor. Authorized to site, develop, and operate a disposal facility, the Authority started its work in the fall of 1982.

The following schedule for the Authority's work has been approved by the Authority's managing board:

- A Request For Proposal has been issued to prepare a source-term study for the current volume and expected volume of LLW from 1982 through 2010;
- A conceptual layout of the disposal facility will be developed;
- An economic evaluation of the cost of the site will follow. This economic study should be completed by early spring of 1983;
- A contractor to conduct a site suitability study will be selected by January 1983. That study is scheduled to be finished in June 1983. A preliminary report of these findings will be distributed to the affected county and interested parties.
- The Board will then issue a formal order to proceed, initiating site characterization studies of ecological, environmental, and other aspects of the site. These should be completed in July 1985, with construction to follow.

Engineering and construction for this work will be contracted, since the Authority does not need the staff on permanent basis. The authority will consider contracting for the operation of the facility, but facility management will always remain with the Authority.

Significant Program Changes

Texas' radiation control program started in 1963 with a professional and support staff of seventeen. Since then, the program has significantly increased in size on three occasions. In 1969, six people were added when the BRC received a federal contract from the Food and Drug Administration's Bureau of Radiation Health to conduct certain programs in the area of medical X-rays. A second increase came in 1973, the first year the state used zero-based budgeting (ZBB). Eleven people were added.

The staff quadrupled in size in 1981 when the legislature raised the staff level from thrity-four to one-hundred thirty-six and the budget from $500,000 for 1981 to $5 million for 1982. The reasons behind that increase are a study of government and industry cooperation.

In March 1979, legislation was introduced in the Texas House of Representatives to address the state's problems of high- and low-level radioactive waste disposal. At that time a company proposed developing a new waste processing site. Media attention was being focused on problems of mill tailings and waste processing and storage by Texas licensees. Industry opposition developed to the proposed legislation because of the inadequate preparation that had been given to the legislation. The bill died in the House committee. A House interim study committee was appointed which worked closely with the Department of Health. The committee decided to eliminate high-level waste from the legislation and to deal with mill tailings and low-level waste in separate bills so that if only one passed, at least part of the problem would be addressed.

The two main problems addressed were the need to expand the Department of Health's authority and the lack of civil penalty authority for violations. An informal group of the parties that would be affected by the legislation began working on its development. The group included waste disposers, medical facilities, environmentalists, legislators, and Department of Health officials, all going "toe-to-toe", discussing their objections and fears and trying to determine the actual results of possible actions. Because the legislature meets biennially, there was an eighteen-month interim period to develop the legislation. Besides the separate bills for mill tailings and LLW, a third one was added to establish a siting authority. This last bill included a provsion that the site must be on state-owned land.

To ensure that opposition to the bills did not develop from a party that was uninformed, an education process about the proposals was conducted. This process, conducted by lead legislators and others involved during the interim period, included the governor, the legislative council that would draft the bills, waste generators, and the public. Another aspect that helped in drafting the legislation was that the legislative

council assigned an attorney to the study committee who remained with it throughout its development so that a single person remained aware of the concerns raised in the process.

All three bills were signed into law, with S 480 (LLW) and S 735 (mill tailings) passed as emergency legislation so that the increased funding for the program could start immediately instead of waiting until the start of the 1982 fiscal year. The third bill, S 1177, established the Low Level Waste Disposal Authority. The authorized personnel level for the Bureau of Radiation Control was increased from thirty-four to one-hundred thirty-six. The budget was established at $5 million for FY 82 and $3.8 million for FY 83, the level at which it is expected to remain at least for the next biennium. The difference in funding levels for those fiscal years is because of higher capital expenditures in FY 82.

Profile of Licensees

The Bureau of Radiation Control (BRC) in the Department of Health manages the Texas program. According to data submitted to NRC on December 31, 1981, there were 1,850 licenses. Of these, 29% were medical and 61% were industrial. The remaining were academic and other types.

These licensees generate about 4,000 55-gallon drums of waste annually. Texas has recently adopted NRC's biomedical waste rule (10 CFR Part 20.306). David Lacker, Director of the Bureau of Radiation Control, expects that adoption of this rule will decrease the volume of waste by fifty to sixty percent. This rule, in effect, exempts materials containing small amounts of specified radioactive materials commonly used by medical licensees from requirements for disposal as low level radioactive wastes. The BRC had reservations about adoption of the rule, however, because of the non-radiological toxic problems of this waste, particularly the presence of the carcinogen, toluene. Control of the disposal will now shift to the hazardous waste program in the Department of Health. The state's hazardous waste disposers, including incinerators and land disposers, do not want to be responsible for disposal of any radioactive wastes. This situation creates a problem for the BRC, but the rule was adopted so that Texas regulations were consistent with those of the NRC.

Texas is developing its own LLW disposal site which is expected to be operative in the next four to five years. In the meantime, most Texas waste is shipped to the Hanford, Washington site. There are three temporary storage sites in the state, all owned by transporting companies. The two which store most of the waste are located near Houston and the third, which stores primarily oil field wastes, is located near Midland.

Budget Preparation

The groups involved in developing the biennial budget submission for the Department of Health, which includes the Bureau of Radiation Control, include the Legislative Budget Board (LBB) and the Governors' Office of Budget and Planning (OBP), the relevant House and Senate committees, and the legislative liaison in the office of the Commissioner of Health. The LBB consists of lead legislators and works on parallel lines with the OBP, with both developing budgets to present to the legislature.

The legislature appropriates money for the following two fiscal years, that is, the 1981 legislature appropriated funds for FY 82 and 1983 or September 1, 1981 to August 31, 1983. In January of even-numbered years, the OBP and LBB draft budget instructions to agencies. These instructions dictate the form of the budget request, not the actual figures, and go to the agency in March or April.

The three BRC divisions recommend budget levels to the BRC director who compiles them for incusion in the Departmental recommendations. The Department's first budget submission is filed with the LBB and OBP in July of even-numbered years, before the session starts the following January. The second and final submission is given in October with final expenditure data for the fiscal year just completed and projections for the fiscal year that has just begun. These projections act as the Department's initial operating budget. The OBP and the LBB hold joint budget hearings on the agency's requests, questions from the OBP and LBB, and public comment on the requests.

In the OBP, a program decision package is developed for the Department, including a trend line of expenditures based on historical data. The OBP staff budget recommendations go through internal review in September and final recommendations are given to the governor in October or November. Gubernatorial approval is given sometime in November, and a final budget document and appropriations bill is prepared in December. The legislature tends to take the governor's recommended budget less seriously than that of the LBB unless the governor is emphasizing a particular area.

The LBB looks at federal mandates and economic models in its budget preparation, including indicators of costs in areas. Departmental performance standards are evaluated to determine what the department is doing and what the costs of these activities are. The OBP and LBB receive semi-annual and annual performance reports on the Department's compliance with the standards. After the LBB staff recommendations are reviewed internally, the ten-member Board votes on individual line items in a public meeting. The results of these votes form the bill that is introduced in the House and Senate.

The Bureau of Radiation Control is considered an activity within the line item Environmental Health in the Department of Health's budget. Environmental Health also

includes the drinking water supply, water hygiene, and solid waste programs. The LBB does not vote on individual activities except in exceptional cases. The level of specificity at which the OBP and the LBB review depends on the size, complexity, and political sensitivity of the program. Some Radiation Advisory Board members and industry representatives who wanted the BRC to be enlarged think it may have grown too fast. The OBP will review staffing patterns as the next budget cycle begins and may recommend a downward turn in staffing, although this is not definite at this timne.

The BRC has the legislative authority to charge fees, but a final fee rule has not been developed yet. One was proposed in the Spring, 1982 but was withdrawn in August after opposition to it.

Legislative Oversight

There is programmatic oversight through legislative subcommittees that operate while the legislature is out of session. In the House, the Health Services Committee's Budget and Oversight Subcommittee examines individual programs during the interim and the overall department toward the end of the interim, doing this for several departments. The Committee also has a standing Subcommittee on the Department of Health that examines that agency in depth during the interim.

The Department of Health must take a different approach to each subcommittee. For the Budget and Oversight Subcommittee, the Department prepares its plan for the next two years and for the standing subcommittee the Department must examine its goals for the next ten years taking a long-range approach. Both these subcommittees look at programmatic performance standards that are developed by the BRC staff, reviewing both the standards used and the compliance with those standards.

Oversight by the Senate's Natural Resources Committee depends on the interests of the committee chairperson. There has not been active Senate oversight during recent interim periods.

These standing committees recommend appropriations levels to their respective appropriations committees, which are not bound by those suggestions. The Legislative Budget Board sends a recommended budget to both houses at the beginning of the legislative session and both appropriations committees begin preparation of a budget. As is usual with appropriation matters, the House acts first on the appropriations bill.

In addition, the Sunset Commission reviews each department every ten years. The Department of Health is to be reviewed in 1983 after the legislative session ends in early June.

State Personnel Interviewed in the Preparation of This Report

Ms. Lily Gilligan, Legislative Liaison, Texas Department of Health.

Mr. Rick Jacoby, General Manager, Texas Low Level Radioactive Waste Disposal Authority.

Mr. David Lacker, Director, Bureau of Radiation Control, Texas Department of Health.

Ms. Greta Rymal, Budget Analyst, Legislative Budget Board.

Ms. Zelma Smith, Budget Analyst, Governor's Office of Budget and Planning.

The Agreement State Program: New York

Introduction/History

The State of New York first instituted a radiation control program in 1955, when the State Department of Health (DH) was authorized to "supervise and regulate the public health aspects of the use of ionizing radiation and the handling and disposal of radioactive waste." In the same year, the state's Department of Labor, acting under their authority over industrial facilities, promulgated regulations covering radiation protection in facilities under Industrial Code #38, Radiation Protection. Three years later, the New York City Department of Health (NYCDH) exercised its authority to regulate all health matters within the City's jurisdiction granted under the Home Rule Charter of the State Constitution and promulgated regulations dealing with radiological hazards (Article 6 of the City Code). A year later, the City acted to expand the code, superceding Article 6 with Article 175 which protected the "public generally as well as workers in certain installations from the dangers inherent in the uncontrolled use of ionizing radiation." The new code, though covering workers, did not supercede the state Department of Labor's licensing authority in the City.

Therefore, by 1960 when state legislation was adopted that authorized the state to enter into an agreement with federal AEC to assume sole authority over nuclear materials, the jurisdiction was split among two statewide agencies, serving two different user commmunities, and the New York City Department of Health. As a result, when the overall Agreement was negotiated and finally executed in October of 1962, it involved three distinct agencies, each with programmatic responsibilities:

- The state Department of Health (DH) which assumed responsibility for the possession and use of Agreement Materials in non-industrial facilities (e.g., hospitals, academic institutions, and public health facilities and civil defense users),
- The State Department of Labor (DL) which took jurisdiction over agreement materials in industrial or commercial facilities throughout the state, including New York City, and
- The New York City Department of Health which took jurisdiction over possession of non-industrial and non-commercial facilities in the city.

A fourth state entity, the Office of Atomic Development (OAD) was given the responsibility to provide overall coordination and to be a single point of contact with the Commission. In 1965, the State and AEC signed a memorandum of understanding further elaborating the federal/state division of responsibilities.

This organizational structure remained the same until 1968 when the New York State Atomic Energy Council (state AEC) was established within the Department of Commerce (DOC) and took over the Agreement State responsibilities of the Office of Atomic Development.

Two years later, the state's jurisdictional responsibility over the Agreement State Program was further divided when the state Department of Environmental Conservation (DEC) was established and authorized to take over some of the "activities related to the control of radiation-producing devices and materials which may affect the environment." With this mandate, the new DEC assumed the responsibilities for environmental monitoring and surveillance of radiation then within the DH and began to promulgate the necessary rules and regulations to carry out its mission. In 1972, the proposed rules were released and received immediate criticism from the radioactive material user community because 1) they duplicated existing regulations and procedures of the DH and DL and 2) created an interagency conflict over the jurisdiction over radioactive materials between the two departments. The dispute was resolved by a memorandum of understanding between DEC and DH and DEC's promulgation in October 1974 of the proposed rules. These actions established the DEC as the agency responsible for setting the environmental standards for the release of radioactive material to the environment and burial of such material.

In the late fifties, the state established a licensing committee within the OAD. This function was continued in the successor state AEC. The AEC Committee on Licensing was comprised of the following members;

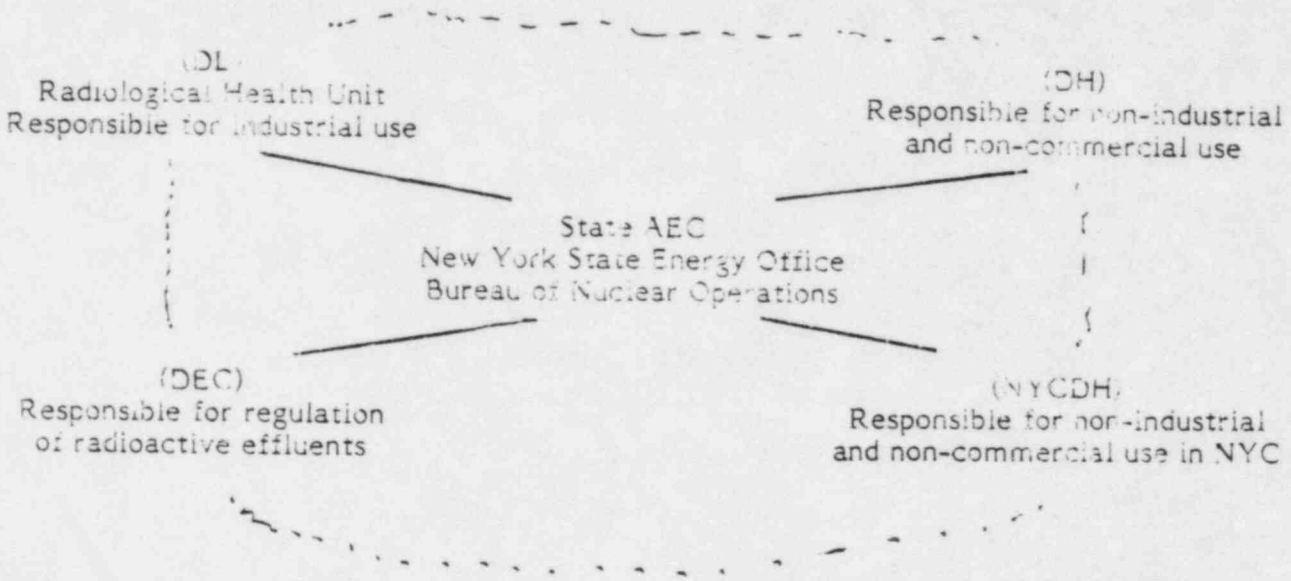
- The Director, Bureau of Radiological Health, state Department of Health,
- The Director, Radiological Health Unit, state Department of Labor,
- The Director, Bureau of Radiation Control, New York City Department of Health,
- The Director, Technological Development Programs, Division of Industrial Sciences and Technologies, state Department of Commerce.

At the time it was created, DEC was not made a member of the Licensing Committee – which further fueled the jurisdictional dispute between the DH and the DEC – and, according to the 1974 Legislative Audit Report, "affected the State's AEC coordination of the State's Radiation Control Program." The Department was effectively admitted to membership on the Committee in October, 1974 following the adoption of its proposed regulations.

Overall Program Organization

With the inclusion of DEC in the organizational scheme, the management of the State's Radiation Control Program, including the Agreement Materials Program, was in the hands of three statewide agencies with programmatic responsibility (DL, DH, DEC), one with coordination responsibility (state AEC) and the New York City Department of Health:

Figure 1



The overall organizational structure remains practically the same today. There has been some shifting of functions between the entities and a change in the coordinating agency which occurred when the state AEC was succeeded by the state Department of Energy in 1977. Following this action, the Bureau of Nuclear Operations of the New York State Energy Office assumed the coordination role for the programs. In April 1982, the Bureau was abolished for budgetary reasons, but the responsibility for coordination remains within the Office. The state programs continue to be funded out of general revenues as they were when the Agreement was signed. The City, however, did establish a schedule of license fees that have put it on a sounder financial footing.

A "spoked wheel" rather than as a "block" management organization is depicted in Figure 1 because this is more illustrative of the manner in which the state program functions. Neither the state Energy Office has today, nor the state AEC then, had any direct management responsibility over the Agreement Materials Program. With one exception, the situation cited in the findings of the 1974 Legislative Audit Report exists today: "There is no one in charge of the New York State Radiation Control Program," (i.e., there is no single agency reporting to the Governor with responsibility for the

program). Each agency is responsible for a defined share of the overall state Agreements Program. The exception is radiological emergency response. In the early years of the program, each state agency shared this responsibility generally along the lines of the user group over which they had jurisdiction. Legislation enacted in 1980, however, designated the Department of Health as the lead agency for radiological emergency preparedness. Prior to the statutory mandate, the DEH was designated as the lead agency by the State AEC.

The State Departments of Labor and Health and City of New York maintain a radiological emergency response capability to address on-site incidents within the confines of a licensed facility. Ordinarily, they are the first respondents to an occurrence at the site of one of their respective licensees, but a possibility of off-site release of radiation activates the state Radiological Emergency Response Plan. The Department of Health then assumes lead management responsibility. The City of New York has also adopted a Radiological Emergency Response plan outlining the procedures to be followed during a radiological emergency. The plan, however, recognizes the state DH's lead role.

The following description of the current Agreement State Program in the State of New York is organized into separate sections on each department's program, recognizing the independent nature of each of the agencies' programs.

Overall Legislative Oversight

The programmatic oversight over the State's radiation control program is within the purview of respective Senate and Assembly Subcommittees. Very little, if any, attention has been given to the Agreement State Program. The Senate Finance and House Ways and Means Committees have given attention primarily to fiscal aspects of the state radiation control activities and the Agreement Program. As cited earlier, a legislative commission on expenditure review completed a program audit of the state's nuclear develpment and radiation control activities in 1974.

State Budget Development

The State of New York has an executive budget process, wherein the Governor develops an overall budget and submits his proposals to the legislature for review and adoption. The budget that each state Department approves to cover the Agreement program is incorporated into each Department's overall request and submitted to the Governor's budget offices for review. The Governor then submits his budget to the legislature.

This process begins with the directors of the responsible units within each department developing a budget to meet the unit's designated responsibilities. A proposed program budget is submitted to the appropriate level of agency management. The

respective agency budgets are submitted independent of each other. The "coordinating agency" now the State Energy Office, plays no role in developing or integrating the independent budgets into a single Agreement State Program budget.

Budget proposals are referred to the respective Senate and Assembly committees and subcommittees whose jurisdictions are, for the most part, parallel agency or sub-agency divisions rather than programs. The result is that the Health Committee reviews the health budget, the Labor Committee the labor budget, and so on. Thus, no single committee has jurisdiction over the entire state radiation control budget, including the Agreement materials budget.

The State Department of Health

Organization

From the time of the agreement between New York State and AEC (now NRC) in 1962, the State Department of Health's Agreement program has been administered by a Bureau, originally the Bureau of Radiological Health and now, after undergoing reorganizations in 1980 and 1982, the Bureau of Environmental Radiation Protection (BERP). (See Figures 2-5) The Bureau is one of three in the Division of Environmental Protection. The Bureau has the responsibilities for environmental monitoring, radiological emergency response, radioactive materials licensing and compliance. The transfer of the environmental surveillance program to DH in October 1982 was brought about by budgetary constraints on the DEC.

This move put almost all of the functions that had been transferred to the DEC in 1970 and 1974 back into the Department of Health.

DEC retains the authority and responsibility of issuing permits that authorize discharge of radioactive materials into the environment and the development of environmental radiation standards.

Staff and Operating Budget. The BERP is organized into three sections; Radioactive Materials and Non-ionizing Radiation, Radiation Equipment and Environmental Radiation. The role each unit plays in the administration of the Agreement program is described in the following sections:

Program Planning/Evaluation. The Bureau assesses the upcoming workload in order to define staff needs. Program evaluation is conducted by Radioactive Materials and Non-Ionizing Radiation Section.

Profile of Licensees. The Department of Health has the responsibility for all non-industrial and non-commercial licenses for the state, except within the City of New York. In 1982, the Department reported 716 licenses were issued. No specific demographic distribution was available.

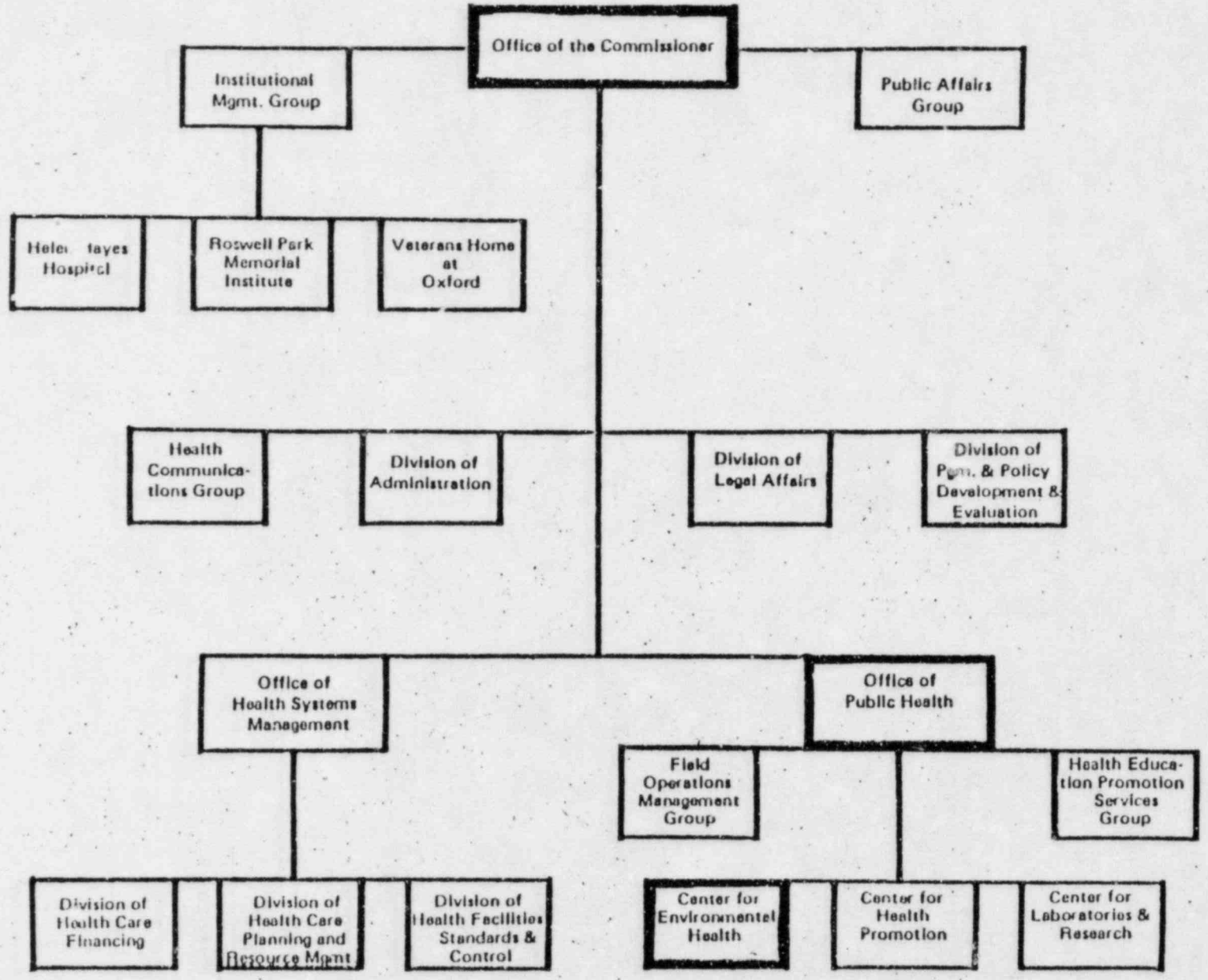

Office of the Commissioner
Institutional Mgmt. Group
Public Affairs Group
Helen Hayes Hospital
Roswell Park Memorial Institute
Veterans Home at Oxford
Health Communications Group
Division of Administration
Division of Legal Affairs
Division of Plan. & Policy Development & Evaluation
Office of Health Systems Management
Office of Public Health
Field Operations Management Group
Health Education Promotion Services Group
Division of Health Care Financing
Division of Health Care Planning and Resource Mgmt
Division of Health Facilities Standards & Control
Center for Environmental Health
Center for Health Promotion
Center for Laboratories & Research

Figure 2

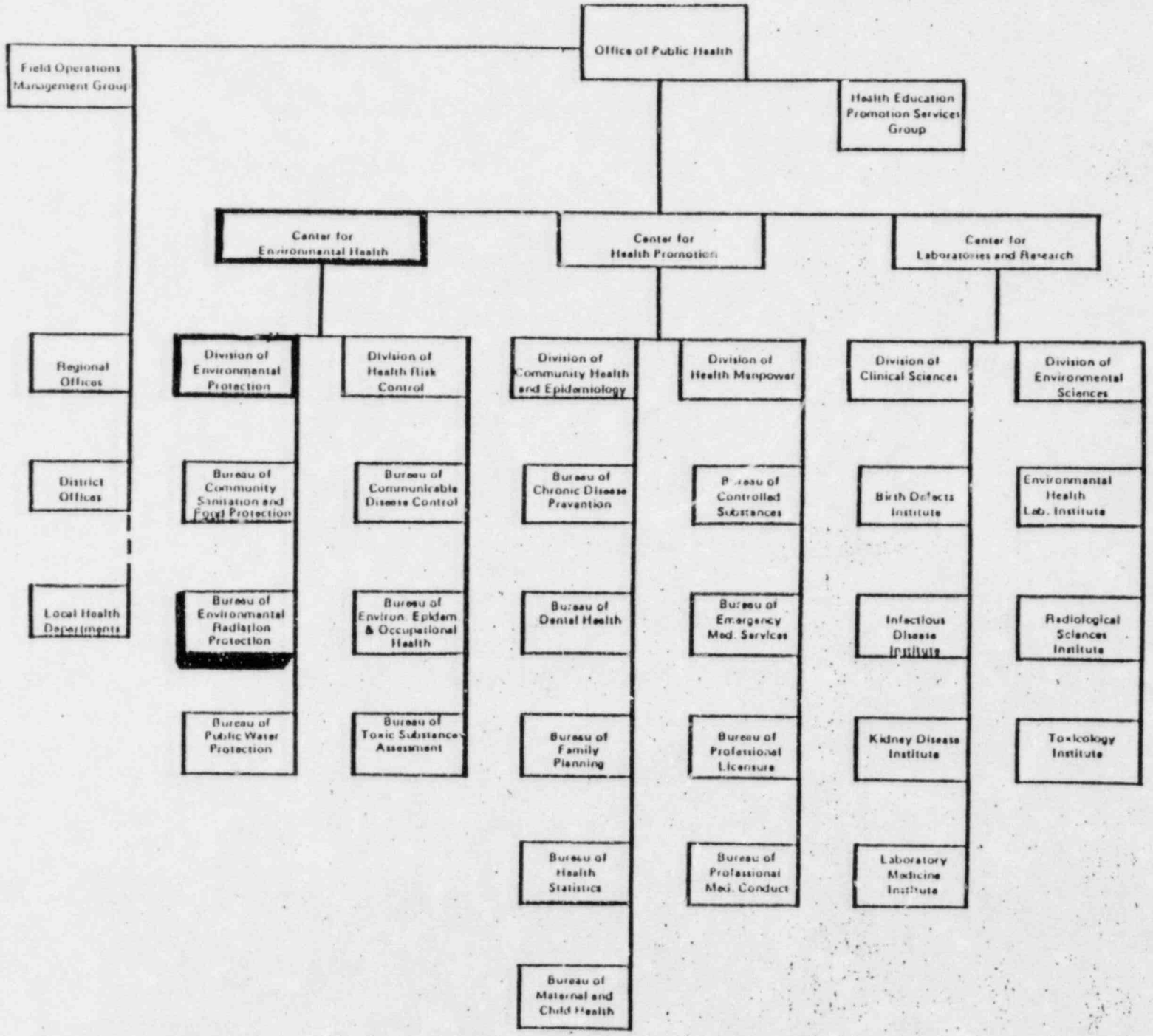

Office of Public Health
Field Operations Management Group
Health Education Promotion Services Group
Center for Environmental Health
Center for Health Promotion
Center for Laboratories and Research
Regional Offices
District Offices
Local Health Departments
Division of Environmental Protection
Division of Health Risk Control
Division of Community Health and Epidemiology
Division of Health Manpower
Division of Clinical Sciences
Division of Environmental Sciences
Bureau of Community Sanitation and Food Protection
Bureau of Environmental Radiation Protection
Bureau of Public Water Protection
Bureau of Communicable Disease Control
Bureau of Environ. Epidem. & Occupational Health
Bureau of Toxic Substance Assessment
Bureau of Chronic Disease Prevention
Bureau of Dental Health
Bureau of Family Planning
Bureau of Health Statistics
Bureau of Maternal and Child Health
Bureau of Controlled Substances
Bureau of Emergency Med. Services
Bureau of Professional Licensure
Bureau of Professional Med. Conduct
Birth Defects Institute
Infectious Disease Institute
Kidney Disease Institute
Laboratory Medicine Institute
Environmental Health Lab. Institute
Radiological Sciences Institute
Toxicology Institute

Figure 3

Organization Chart

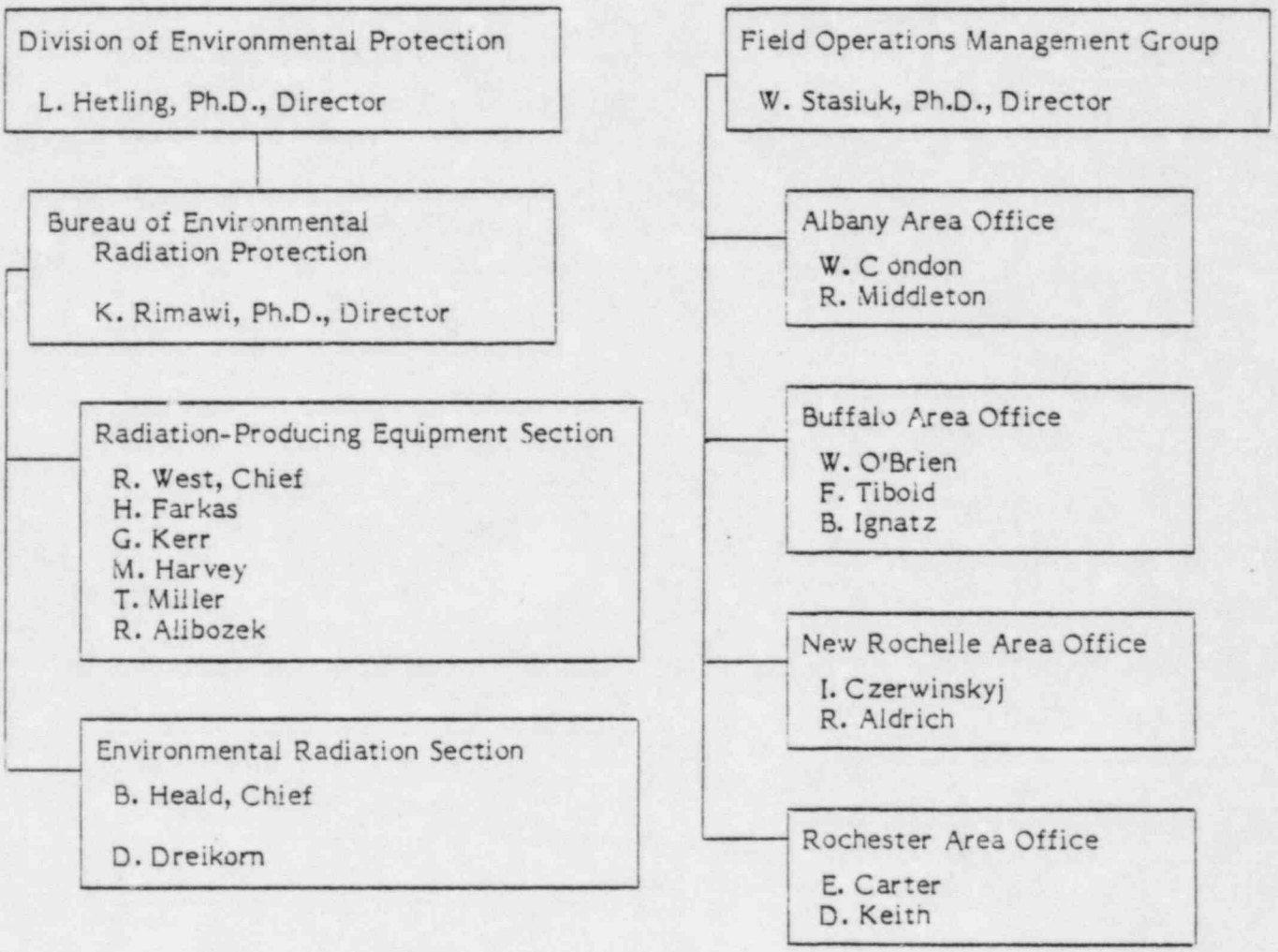
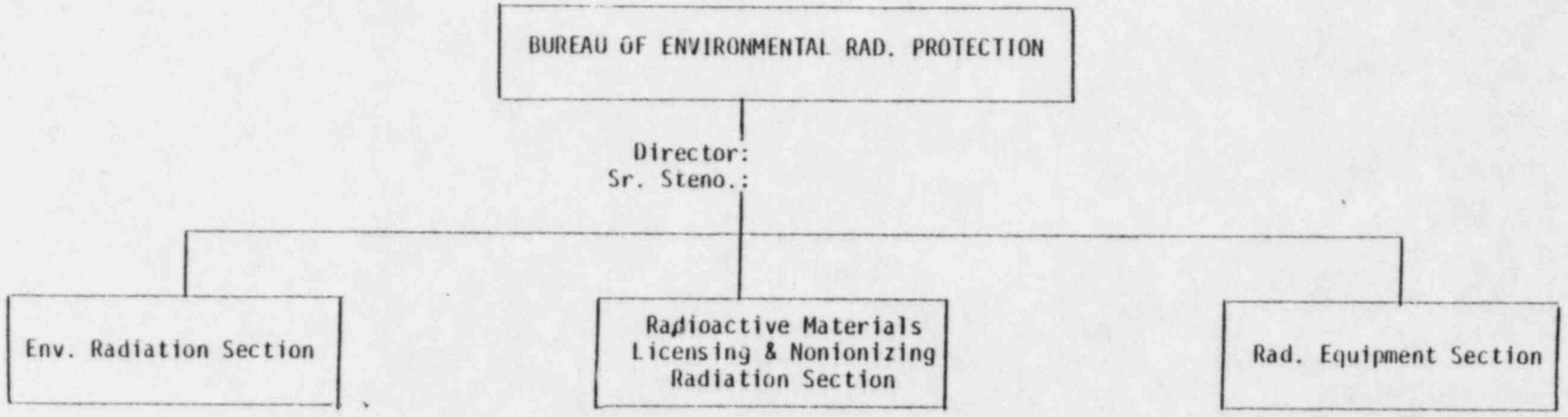


Figure 4

(Current Organization)



(This does not reflect vacant positions)

Figure 5

Development of Rules/Regulations. The radiation control program is governed by the same procedures for developing rules and regulations as is any other unit within the Department of Health. The process is as follows:

- proposed rules and regulations are drafted by the responsible unit,
- they are forwarded to the Department's legal office for review,
- when they are approved by the legal office, they are published in the State Register for a thirty day comment period,
- comments received are reviewed; and an analysis and the final draft regulations are prepared and forwarded to the Public Health Council for approval.
- upon approval by the Public Health Council, the regulations are published in the State Register.

The Public Health Council is made up of the Commissioner and fourteen members appointed by the Governor with the consent of the Senate. In accordance with the provisions of the agreement with NRC, DH consults early on with NRC to assure that proposed regulations will be compatible.

Licensing. Licensing within the Bureau is carried out by the Radioactive Materials and Non-Ionizing Radiation Section staff. The staff employs internal licensing guides and checklists to assure consistency in processing license applications. A medical advisory committee may be consulted on the issuance of new licenses for the use of investigational radioactive materials on humans. (Attachment A)

Compliance. The compliance activities for the Agreement program is administered by BERP in Albany, but field inspections are primarily carried out by personnel in the five regional offices located in Albany, Buffalo, Rochester, Syracuse, and New Rochelle. The staff in these regional offices have other responsibilities besides the Agreement program and administratively report to the regional or area office director. The Albany "compliance" unit alone provides technical direction to the regional staff. The Agreement program contitutes a small portion of the compliance functions performed by the regional staff. At times other health problems are given a higher priority, with the result that the Agreement program does not get the attention deemed necessary by NRC. In order to assure a measure of uniformity, among regions in the state, the BERP has developed a compliance checklist for conducting compliance inspections. A set of administrative procedures detailing the responsibilities of the regional office staff and their relationship with the Bureau in Albany has been developed.

Emergency Response. The DH has the lead agency role for emergency radiological response. This responsibility includes responding to on-and off-site radiological incidents associated with its own licensees, off-site consequences of accidents occurring on the

premise of the other agencies' licensees, and emergencies occurring at nuclear power plant facilities. A radiation emergency plan was developed and updated in 1977.

In 1979, the Disaster Preparedness Commission (DPC) was established by the State and made responsible for overall disaster planning and response. In 1981, the legislature further provided for funding by the utilities of radiological planning activities and established other specific requirements. The radiological emergency planning group (REPG) was formed under the DPC, funded by the utilities and housed in DH. BERP assumed the responsibility for planned development and maintenance. BERP maintained the responsiblity for radiological response, assessment, and recommendation of protective measures. (See Figures 6 and 7)

Although the legislation's primary focus was to authorize the development of emergency response plans and provide the necessary state response capability to cover major accidents at nuclear power plant facilities, the language does not exclude radiological events at other nuclear facilities. The State now has in place a plan that outlines the management structures, the chain of command, and detailed procedures for emergency response.

Laboratory Support. Laboratory services are provided primarily through the Department's Division of Laboratories and Research.

Training. On-the-job training in licensing procedures is provided in Albany by BERP personnel. Inspectors are expected to attend appropriate NRC courses before performing inspections independently. Most senior staff have attended the appropriate NRC courses.

Public Education. The Bureau does not maintain any general public education program.

Advisory Committees. A medical advisory committee composed of seven members assists the Bureau in carrying out its responsibilities. The Committee's principal duties include: reviewing applications for investigational uses of radiopharmaceuticals and reports from such authorized users; advising on continuing further investigational studies and special licensing requirements establishing criteria for training, safety procedures and equipment designs; and commenting on proposed regulations. The Bureau ordinarily would not approve an authorization to use radiopharmaceuticals as an investigative drug without the recommendation of the Medical Advisory Committee.

The Bureau also has an advisory committee on radioactive materials and the environment. It has nine members, four of whom represent federal radiation programs. The Committee advises the Bureau on issues relating to areas of the staff where radiation levels or radioactive materials concentrations exceed normal background.

RESPONSE ORGANIZATIONAL STRUCTURE

"State Declaration of Disaster Emergency"

LINES OF AUTHORITY

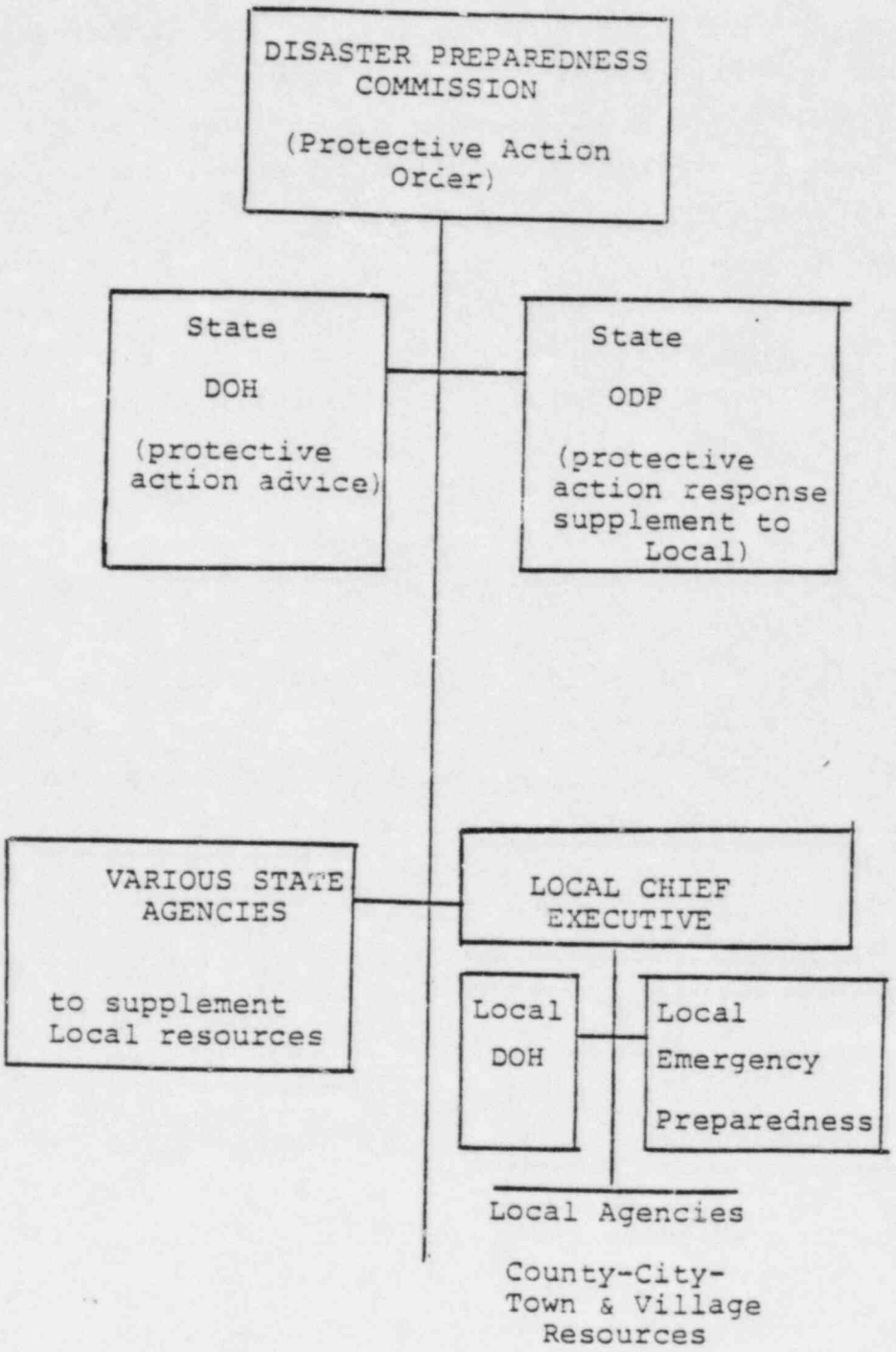


Figure 6

NOTE: Federal Lines of Authority: The NRC regulates the utility; FEMA advises the State

RESPONSE ORGANIZATIONAL STRUCTURE

"Local State of Emergency"

LINES OF AUTHORITY

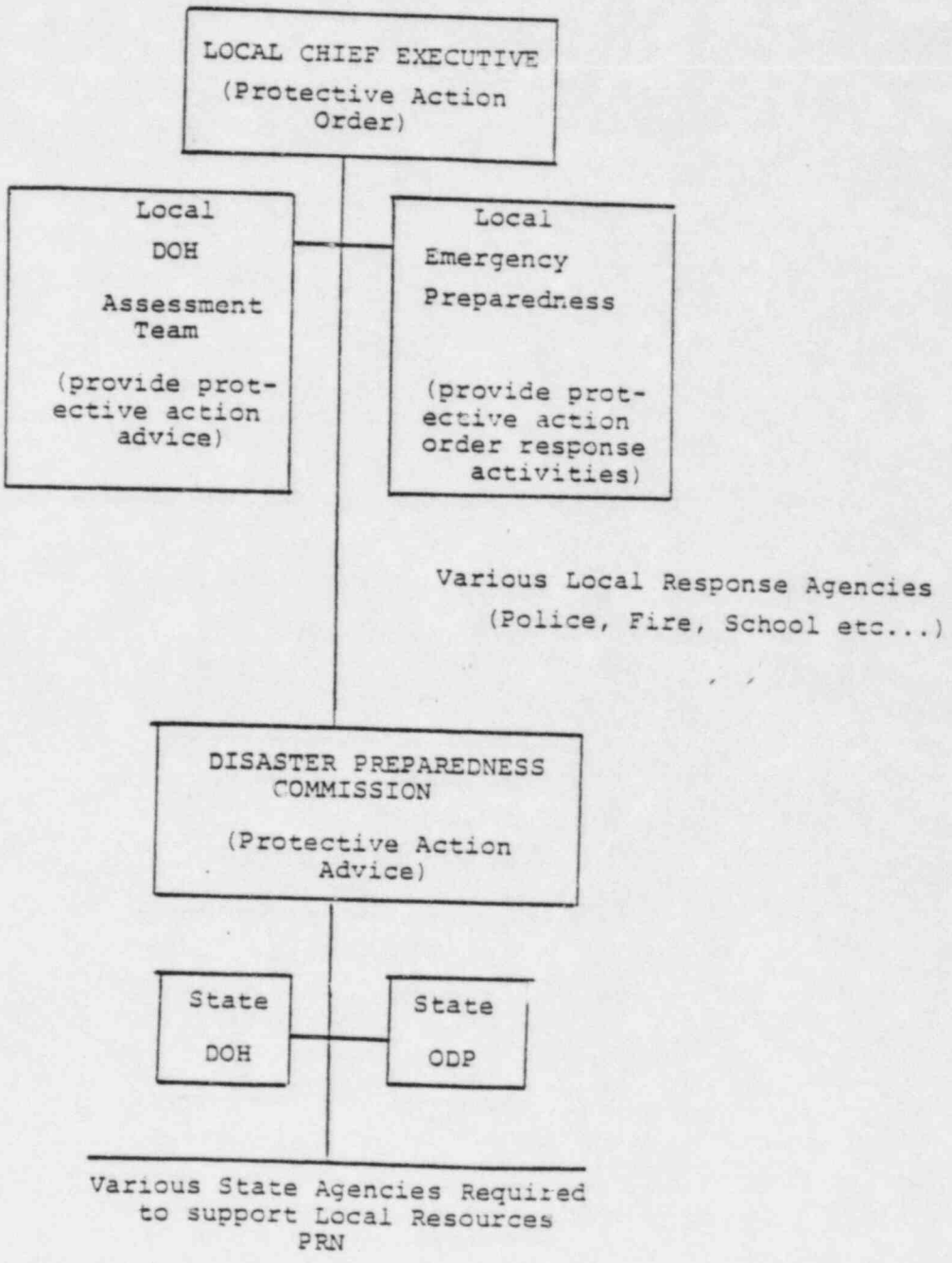


Figure 7

NOTE: Federal Lines of Autority- The NRC regulates the utility; FEMA advises the State

The Department of Labor Radiation Control Program

Organization. The Department of Labor's radiation control program is responsible for all industrial sources of radiation in the State. In contrast to the DH, the DL's authority extends over the City of New York. The program primarily covers radioactive material sources of radiation licensed under the Agreement State program. The Radiological Health Unit (RHU) within the Department's Division of Safety and Health is the operating unit charged with administering the program. The unit is headquartered in New York City and maintains an office in Buffalo. The reason for the Buffalo opeation is to cover licensing in the western areas of the state, including the West Valley LLW burial site (see Figure 8).

The RHU is organized into three functioning groups:

- Management
- Licensing
- Inspection

The Agreement program is the primary responsibility of the unit, accounting for over 90 percent of its budget.

The Agreement materials activities budget accounted for $190,000 of a total RCP budget of $200,000. As of May 1982, the Unit's Agreement program staff was allocated in the following manner:

1.0 FTE, Management
1.9 FTE, Licensing
3.0 FTE, Inspection
2.5 FTE*, Secretarial
*FTE = full-time equivalent employee

Profile of Licensees. Four hundred and five DL licenses were in effect in the spring of 1982. Included in this group are two low level waste brokers. The DL, along with the DEC, also has regulatory authority over the low level facility at West Valley. The site was closed in March 1975. Approximately forty percent of the licensees are located in the metropolitan area surrounding New York City, and another twenty percent are located in and around Buffalo.

Rules and Regulation Development. The development of rules and regulations in the DL is similar to that followed by the Department of Health. The RHU policy is to try to update the radiation regulations every four to five years. The last update was issued in July 1978.

LOCATION OF THE RCP WITHIN THE STATE ORGANIZATION

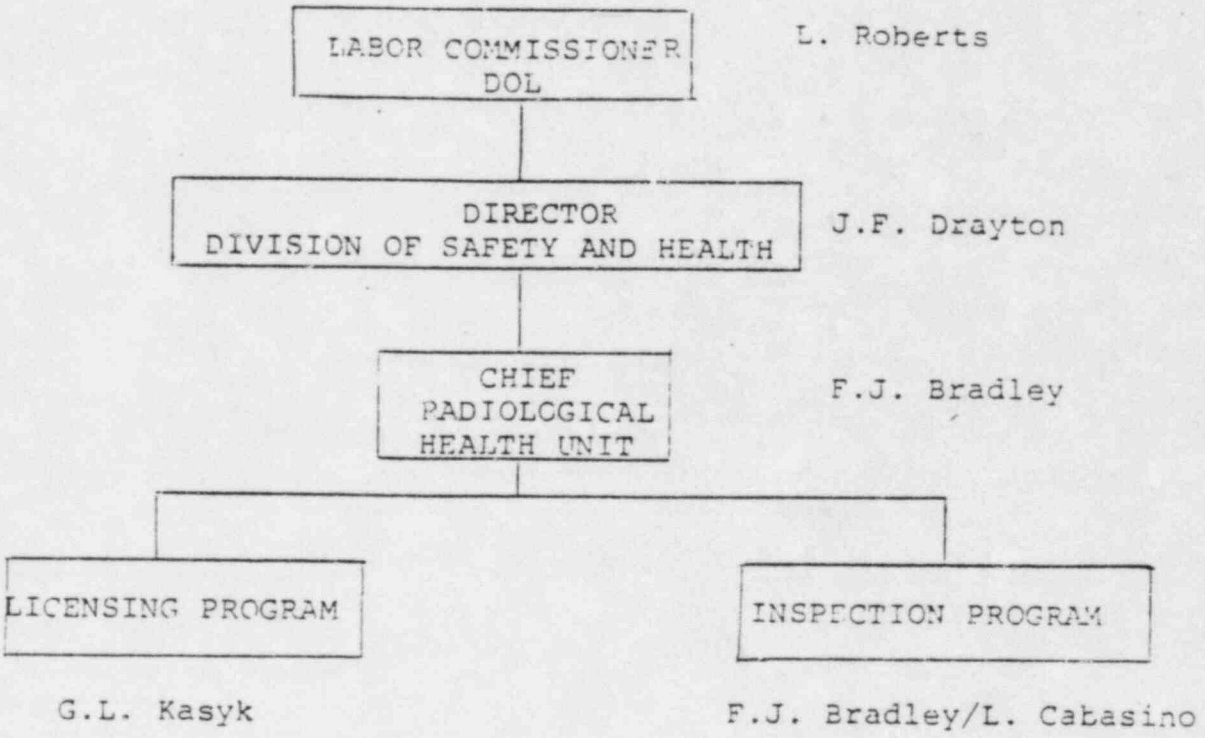


Figure 8

Licensing. The licensing function for agreement state materials is performed by the "licensing group" located in New York City. The staff uses licensing guides and checklists and works in coordination with the compliance group.

Compliance. The RHU Compliance Program consists primarily of unannounced inspections, carried out at a frequency determined by the priority of the license. All inspections are performed by the compliance group staff.

Training. The RHU has an informal on-the-job training program for new employees. They generally work closely with senior personnel until they are considered adequately trained and able to function on their own. The participation of the RHU in NRC training courses had been minimal, but in 1981 and 82, five radiological physicists attended NRC training courses.

Advisory Committees. The DL has determined that there is no need for a medical advisory or any other type of committee for the Radiation Control Program. None, therefore, has been established. Consultation with state and federal resource personnel is undertaken whenever necessary.

Emergency Response. The RHU maintains the responsibility to respond to industrial radiological emergencies in which there is no release to the environment. The New York State Emergency Response Plan also designates the Department as a resource agency to the Department of Health in any radiological emergency in which off-site releases to the environment have occurred.

The Department of Environmental Conservation Agreement Materials Program

Organization/Staff/Budget. The Department of Environmental Conservation (DEC) came into existence in 1970 and, at that time, the responsibility for the state's radiation monitoring program was transferred from DH to DEC. In 1974, DEC became a participant in the Agreement State Program with the issuance of the Rule, Part 380. During that year the Radiation Control Program of the DEC took over the responsibility for setting environmental standards and regulations for radiation. DEC carries out its regulatory responsibilities through the issurance of permits that govern the release of radionuclides into the environment and burial of radioactive materials. In May 1982, the DEC announced that it could no longer support the overall program and recommended that the radiological monitoring responsibility be transferred to the DH. By the end of calendar year 1982, this transfer was completed. The result is that DEC will remain a participant in the Agreement program, but will limit its role to:

- The promulation of rules and regulations regarding the release of radioactive materials into the environment and their burial,
- Setting state environmental radiation standards,

- Issuance of permits for the release of radioactive effluents or the burial of radioactive materials.

The current DEC radiation program activities are currently carried out by the Toxics and Radiation Section (TRS) within the Bureau of Abatement Planning of the Division of Air. TRS was formally with the Bureau of Source Control. (See Figure 9)

The total TRS staff available for the DEC Radiation Control Program amounts to an equivalent of about one person per year, provided by two senior state personnel, one who functions as the principal nuclear engineer and another who holds the position as an associate air pollution control engineer. Neither spend more than one-half time on the Radiation Control Program. The budget for FY 1981 was $97,000, which represents a decrease of $36,000 from FY 1980.

Profile of Licensee. As of March 1982, the DEC has issued 98 permits, covering a variety of radioactive materials and facilities. The Nuclear Fuel Services low level waste disposal site is one of the DEC permittees. No demographic information of the permitees is available.

Three licensed facilities require an "unusual amount" of staff time:

- The NFS low level waste facility at West Valley;
- Self-Powered Lighting, a manufacturer of tritium filled "tubes";
- NL Industries, a former manufacturer of depleted uranium metal products

Development of Rules and Regulations. As previously noted, the DEC's regulatory vehicle is a permit setting allowable levels of radionuclide release into the environment. The governing regulations were set out in part 380, Rules and Regulations in 1974. Except for an amendment in March 1982 – which by reference adopted the applicable parts of the state's rule Part 360 governing solid waste management facilities to cover low level radioactive waste disposal facilities – no other changes have been made. The development of rules and regulations follows procedures similar to that of the Department of Health.

Licensing. All permits are issued by nine DEC regions with technical guidance from TRS in Albany. For the most part, NRC licensing guides are utilized. In the past, permits for radionuclide discharges were issued to cover a three-year period. Because of budget constraints, there are now plans to extend the permit period to five years. The DEC Radiation Control Program does not use standard licensing conditions, but refers instead to Part 380 (the DEC rules and regulations) in the permit.

Compliance. Compliance inspections are conducted by TRS with participation of DEC regional offices. Most inspections are announced. TRS has developed a four-level inspection priority system that, though not directly comparable to NRC's, is intended to

N. Y. Dept. of Environmental Conservation

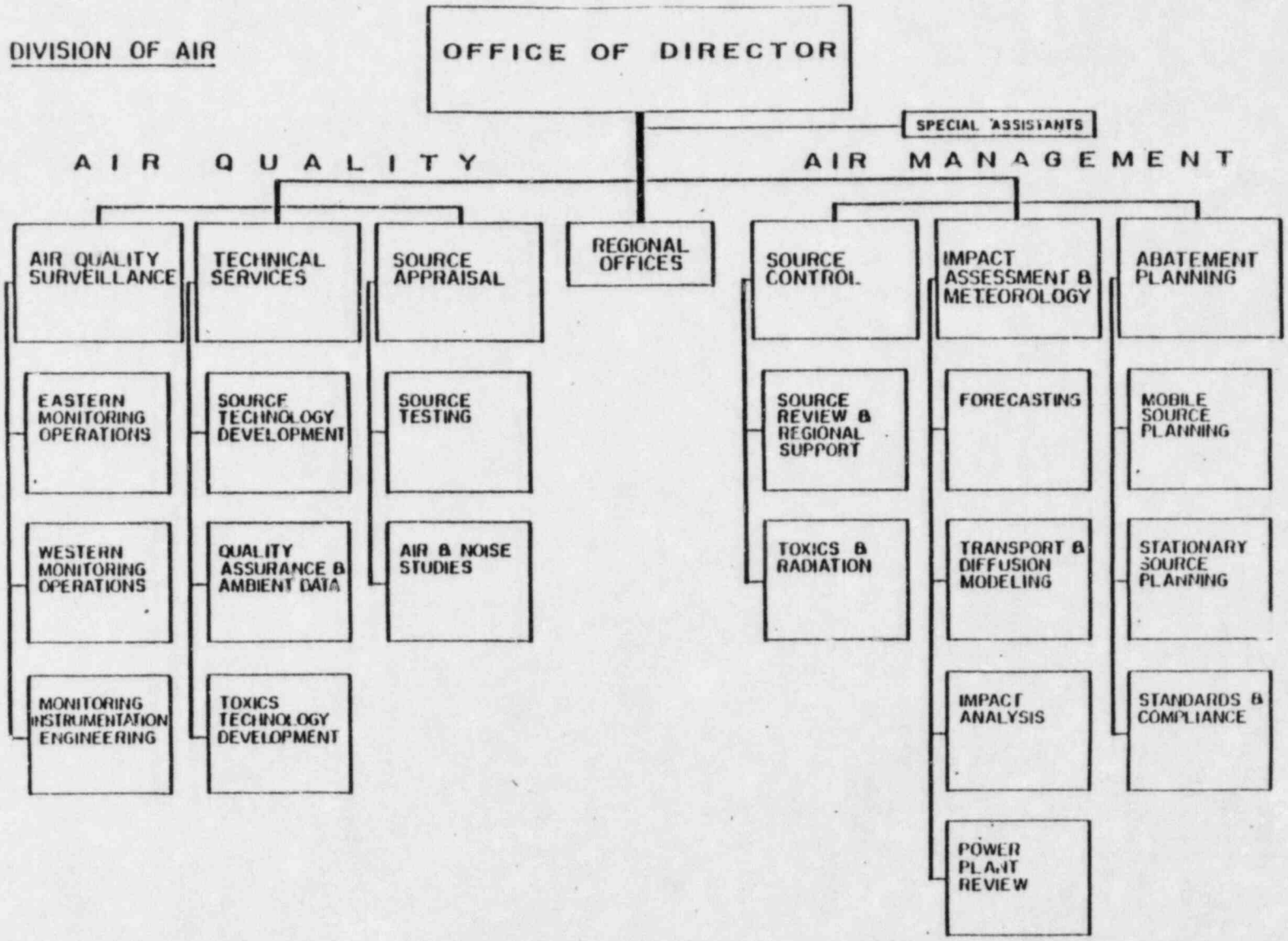


Figure 9

assure that the more hazardous and complex operations are inspected at least once per year. The DEC has the authority to appiy civil penalties through bonds for consent agreements, when violations occur and/or are not corrected.

Training. It is TRS policy to use applicable short courses and workshops in order to maintain technical proficiency. For example, during 1982, the individual responsible for the program operation attended a one-week course on environmental and occupational radiation protection given by the Harvard School of Public Health and another two-day workshop on radiological emergency planning sponsored by the New York Office of Disaster Preparedness.

Laboratory Support. The New York Department of Health Division of Laboratories had provided the major source of services to DEC for radiological analyses during the period in which DEC had the responsibility for environmental monitoring. The Department of Environmental Conservation maintained a limited capability for independent field measurements.

Advisory Committees. The TRS maintains no advisory committees. If technical assistance is needed for the radiological program, the NRC and other state agencies are contacted.

The New York City Department of Health Agreement Materials Program

Organization. The New York City Department of Health assumed jurisdiction over the use of radioactive materials from the state DH under the Home Rule Charter of the State Constitution in 1958. In 1971, the state public health law was amended to remove the exemption on supervision by the state DH over the city's health program. As a result, the NYC DH administers its own radiation control program over academic, medical, and civilian defense users of sources of radiation. The unit within the Department charged with this responsibility is the NYC Bureau for Radiation Control (NYC BRC). The state DL maintains jurisdiction over industrial sources of radiation within the city, while the state DEC retains its authority to issue permits for the release of radioactive materials.

The NYC BRC is divided into two operating divisions, the Radioactive Material Division – almost wholly devoted to the Agreement Materials Program – and the Radiation Equipment Division, responsible for x-ray and non-ionizing radiation equipment. The Radioactive Material Division (RMD) is composed of two parts, a Licensing Group with one technical professional staff member (see Figure 10), and an Inspection Group with five inspectors plus support staff.

Budget/Revenues/Staff. Funds for the Radiation control program are derived from general revenues and the recently revised licensing and inspection fee schedule. For FY

New York City
Environmental Health Services
BUREAU FOR RADIATION CONTROL

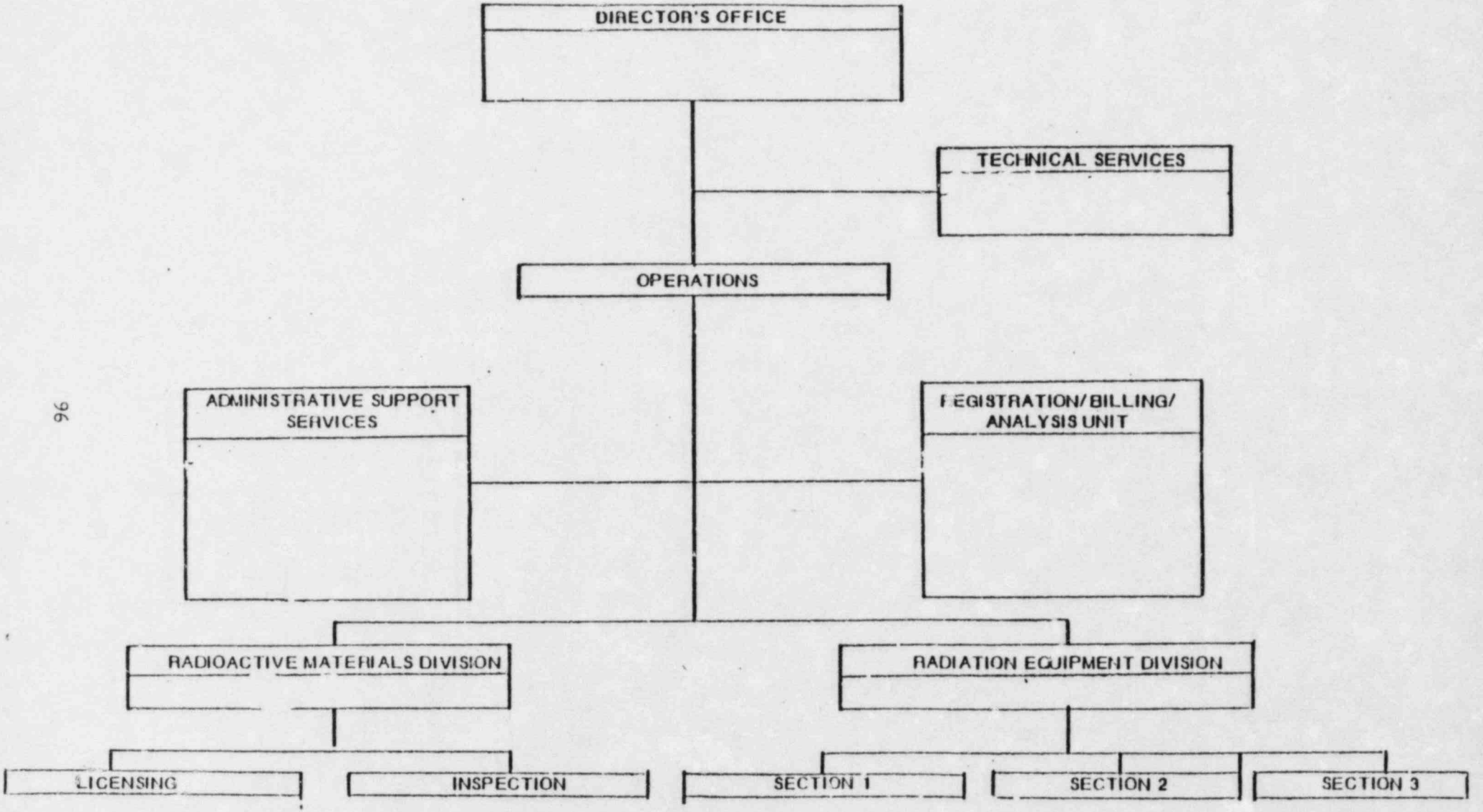


Figure 10

1981, the BRC's budget was $844,000 of which $259, 000 went to support the Agreement program. The remainder was for the X-Ray Program.

On February 26, 1981, the City adopted a resolution to revise its fee schedule. In addition to changing the fees for licensing actions, the City is now authorized to charge fees for all materials and x-ray inspections.

Fees are paid directly by licensees to a general accounting fund in the city treasury. The Bureau does not have direct access to funds collected from the fees. Each year, it prepares a budget for necessities such as authorized positions, travel expenses, equipment, materials, and emergency response and submits its request through the Department to the City Treasury. In past years, the BRC has received only partial budget approvals. Revenues collected from fees charged by the Radioactive Materials program amounted to $221,780 in 1981.

The professional staff available to carry out the duties of the BRC Agreement Materials Program are as follows:

Program Director	0.25 person years
Other Professional &	
Administrative Support	0.52
Radioactive Materials	
Supervision	1.0
Compliance Supervision	1.0
Inspection Staff	5.0
Licensing	1.0
TOTAL	8.8

Planning/Program Evaluation. The Bureau Director projects the annual workload for internal functions such as inspections and submits a monthly tabulation to management. Weekly performance appraisals are reported to the Deputy Commissioner for Environmental Health Services by the Bureau and include comparisons with projected productivity goals.

Profile of Licensees. As of November 2, 1982, there were 827 licenses in effect in the City of New York.

Rules and Regulation Development. Proposed rules and regulations are developed by the BRC with the assistance of the Office of the General Counsel. Upon approval by the necessary management levels within the Department and the Commissioner, they are published in the City Record. A public comment period and/or hearings are included in the process. The procedures followed are the same for all NYC DH rules and regulations.

The City's regulations for radioactive materials were last revised on February 26, 1981 to add fees. No other changes affecting radioactive materials have been made since 1977.

Licensing. The Bureau's RMD utilizes manuals for guidance in license evaluations. These detail the licensing procedures, and contain licensing and regulatory guides that are distributed to licensing applicants upon request.

Except for broad licenses which are issued for two years, most licenses are issued for a period of five years. License renewal procedures are in effect that provide sufficient notice of the license expiration date. A request for renewal of a license must be a complete self-supporting application, without references to previous applications or amendments.

Compliance/Enforcement. The compliance inspection staff uses inspection guides supplied by the NRC State Agreements Program, supplemented by BRC policy memoranda. All inspections are unannounced and conducted on an annual basis. Whenever an incident occurs which is deemed significant, an on-site investigation is conducted. The compliance supervisor is scheduled to accompany BRC inspectors on a regular basis. Communication between the compliance supervisor and licensing is facilitated by having them located in the same office.

Upon completion of a compliance inspection, the licensee is left a notice of violation, if any occurred. Within thirty days, an enforcement letter is issued specifying the time period within which the licensee must respond. Administrative procedures allow the impoundment of materials, if necessary. The licensee can request a public hearing on the BRC's proposed action. The Office of the General Counsel acts as the hearing officer on such matters.

Emergency Response. Notification procedures have been established for reporting on the radiation emergencies to the City of New York. These procedures are outlined in a plan for response to local radiation emergencies developed in 1976 and revised in 1982.

Training. Senior level personnel have attended NRC "core" training courses in licensing, inspection procedures, and radiation safety in nuclear medicine, as appropriate. On-the-job training and orientation are provided to new employees on an informal basis.

Laboratory Support. Currently, the majority of laboratory services is provided in-house. Quantitative analysis of samples of low energy beta emitters is performed at the licensee's facility during the course of the inspection. During emergencies, the state Department of Health's Bureau of Laboratories authorizes the use of its liquid scintillation counter to the Bureau for processing inspector's smear samples.

Advisory Committees. The NYC Radiation Program maintains two advisory committees – the Technical Committee to the Commissioner of Health (Attachment B) and the Subcommittee on Human Application of Radioactive Materials (Attachment C) – to provide counsel to the BRC and the Commissioner of Health on matters dealing with radioactive materials.

The Technical Committee to the Commissioner of Health is composed of twelve members appointed by the Commissioner. Its function is to advise the Commissioner on all uses of radioactive materials, non-ionizing radiation, x-rays, radium, and NARM (naturally occurring and accelerator-produced materials). The Subcommittee on Human applications of Radioactive Materials consists of ten members and provided the BRC with advice on INDs (Investigational New Drugs), new isotopes, and licenses for human use of radioactive materials. The Subcommittee's recommendation on such licenses for human use of radioactive materials is sought by the BRC. Licenses are issued only upon the Subcommittee's approval.

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FOR YEAR ENDING DECEMBER 31, 1979

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Agreement State Program: Washington

Introduction/History

In 1961, the State of Washington enacted legislation that established a state regulatory program to govern the possession and use of sources of ionizing radiation, including provisions authorizing the state to join the Agreement State Program. The same legislation also directed the State Department of Commerce and Economic Development to establish a program to promote and develop the uses of nuclear energy. The Department of Social and Health Services was designated at that time as the state radiation control agency with sole responsibility over the possession and use of sources of ionizing radiation. It remains so today. Five years later in 1966, the state executed a formal agreement with the Atomic Energy Commission and entered the Agreement States Program. The Department's responsibilities are carried out by the Radiation Control Section (RCS) of the Office of Environmental Health Programs. The Agreement States Program resides within this section and accounts for a little over 20 percent of the section's budget and 25 percent of the staff.

The annual budget for the Radiation Control Section amounts to approximately $1.7 million in an overall Department biennial budget of about $1.8 billion. It accounts for 42 of the Department's 15,000 employees. The program, therefore, accounts for less than one-tenth of one percent of the responsible Department's overall budget and less than three-tenths of one percent of the Department's staff. The organizational placement of the program within the immense bureaucracy of the DSHS for all practical purposes precludes legislative attention during budget consideration and, in fact, provides a cloak of invisibility that has both advantages and disadvantages. Though "significant issues" within the program receive consideration by the department secretary during crisis situations, normal and routine matters do not norally gain attention. At the same time, the immense resources of the Department allow a significant degree of flexibility in meeting the needs of the program within overall budgetary constraints.

Significant Program Changes

The sole responsibility for the Agreement State Program and related radiation control functions has remained with the Department of Social and Health Services since the enactment of the enabling legislation in 1961. The Department's responsibilities are to be carried out by the Radiation Control Section within the Office of Environmental Health Programs of the Division of Health. Although the organizational placement of the program has remained constant, three significant changes took place over the period from

October 1979 to April 1982 that expanded the section's regulatory functions and put the program on an independent source of funding.

The first change occurred in 1979 following the discovery of flagrant violations of transportation and packaging regulations by shippers delivering waste to the low-level waste (LLW) burial site on the Hanford reservation. Following this disclosure, then Governor Dixie Lee Ray issued an Executive Order on October 4, 1979 closing the site until assurances were obtained from NRC and DOT that there would be a stepped up program of inspection. After receiving the requested assurances and assigning new responsibilities to several state agencies, Governor Ray issued an Executive Order the following November 19 that reopened the site for disposal under the conditions that:

- all packages shipped to the site be inspected within a forty-eight hour period prior to shipment and be accompanied by a certificate of compliance signed by the generator or packager, broker, and carrier,
- either the generator, packager, broker, and carrier indemnify or hold harmless the State of Washington from all financial liability associated with any occurrences related to the shipment,
- the State be notified at least 4 hours, but not more than 48 hours, prior to the arrival of a shipment of waste into the state for disposal at Hanford and,
- any generator, packager or broker desiring to use the facility must obtain a user permit from the DSHS.

The DSHS was directed to adopt regulations to implement the provisions of the Governor's Executive Order and include in the regulations a way to recover the costs associated with implementing the program. The DSHS, which at that time did not have the authority to collect fees, negotiated a memorandum of understanding with the State Energy Office, the owner of record of the Hanford site and holder of the lease to the site operator (then Nuclear Engineering Co., now U. S. Ecology), and obtained its approval to include in the lease agreement a "user charge" of 30 cents for every cubic foot of waste delivered to the site. Of the 30 cents per cubic foot charge, 27 cents was to cover the costs of the user permit program, the placement of onsite inspectors, and environmental monitoring at the low-level waste facility. The operator was allowed to keep 3 cents to cover the costs of collecting the fee.

The second change occurred in January 1980 when the Department implemented state legislation establishing a regulatory program over uranium mill operations that also set a license fee schedule (see description in later section). Following the enactment of the Federal Uranium Mills Tailing Radiation Control Act, Washington State was the first in the nation to sign an amendment to the agreement with NRC to assure continued state

control over the uranium mill operations. The mill program is currently staffed by 4.5 full-time employees and is completely supported by fees set to cover all program functions (licensing, inspection, environmental monitoring, mandated environmental impact studies, and direct administrative costs). In December 1982, the program had jurisdiction over two existing uranium mill operations, which were going through a process of temporarily closing, and a third proposed facility that was seeking an operating license.

The third and most significant change with regard to the general Agreement State Program functions occurred in April 1982, a year in which the State was suffering from a severe downturn in the economy, and the state deficit was running at almost $150 million. During that year, the State enacted legislation establishing a comprehensive licensing and user fee schedule to underwrite the direct costs for the entire Radiation Control Program, including those functions covered under the Agreement State Program. The State would continue to cover overhead with general revenues. The establishment of this licensing fee schedule, coupled with the user permit inspection fee, the uranium mill tailing control fees and waste disposal fee, meant that the Radiation Control Section's direct costs were completely covered off-budget.

Profile of Radioactive Material Licensees

In August 1982, reports filed by the Radiation Control Section indicated that there were 381 licensed users of ionizing radioactive materials. The Section records also indicated that 4,250 facilities were registered as users of x-ray equipment.

The licensees include industrial radiographers, universities, medical departments of hospitals, physicians, industrial gauge users, and research, industry, academic activities where radioactive materials are used, two uranium mills and a LLW disposal site. Among the over 300 licenses issued, seven are for "specific licenses of a broad scope for radioactive material" issued to various institutions.

No detailed information on the demographic distribution of the licensees is available, but for the most part, they are located in the tri-cities area near the Hanford reservation and the Seattle metropolitan area.

General Program Organization

Overview

As previously indicated, the Department of Social and Health Services is the designated agency with the sole responsibility for the licensing and regulation of the possession and use of radioactive material and sources of ionizing radiation. The operational arm of the Department charged with carrying out the designated responsibili-

ties is the Radiation Control Section (RCS) within the Office of Environmental Health (see figures 1 to 3). This Section has sole, exclusive jurisdiction over the use of radioactive materials and x-ray equipment for the State. This singular responsibility over the use and possession of sources of ionizing radiation covers radioactive materials licensed under the Agreement State Program and other radioactive materials, x-ray equipment, uranium mills and the low-level waste disposal facility at Hanford. The authority encompasses all aspects of governance; setting the regulations, licensing, environmental monitoring, inspection, enforcement, and emergency response.

The RCS carries out its regulatory responsibility for materials almost exclusively through the issuance of a license for possession and use of a source of ionizing radiation. All licensees are subject to inspections to assure compliance with regulations. Though RCS retains the authority to inspect at any reasonable time, a schedule of inspection intervals has been developed which varies according to the priority of the license from one to five years. With two exceptions, discussed below, there is no scheduled periodic monitoring by the state of environmental radiation from licensed sources or licensee facilities that fall under the Agreement State Program. The RCS does not issue permits or variances setting allowable off-site releases of radioactivity outside the conditions in the license.

The interpretation by the legislature of the scope of authority of RCS and the direction given the Department over the recent years has been that environmental monitoring by the department, as far as the general use of state licensed radioactive material is concerned, is limited to on-site activities for the purpose of compliance inspections and for use in emergency situations where off-site releases may have occurred. Licensees, however, may be required to monitor releases to the environment. The two exceptions are the low-level waste disposal facility and the uranium mill operations. The 1979 Executive Order issued by Governor Ray directed RCS to conduct on-site environmental monitoring at the Hanford facility, which it continues to perform today. The site operator continued to be responsible for monitoring and reporting the results to the RCS. The state legislation authorizing the uranium mill and tailings program calls for on-site environmental monitoring, and the section is carrying out this function at existing uranium milling operations.

Details of State Program Organization

The RCS is organized into three primary units:

- Materials Control
- X-ray control (XRC); and,

DEPARTMENT OF SOCIAL AND HEALTH SERVICES

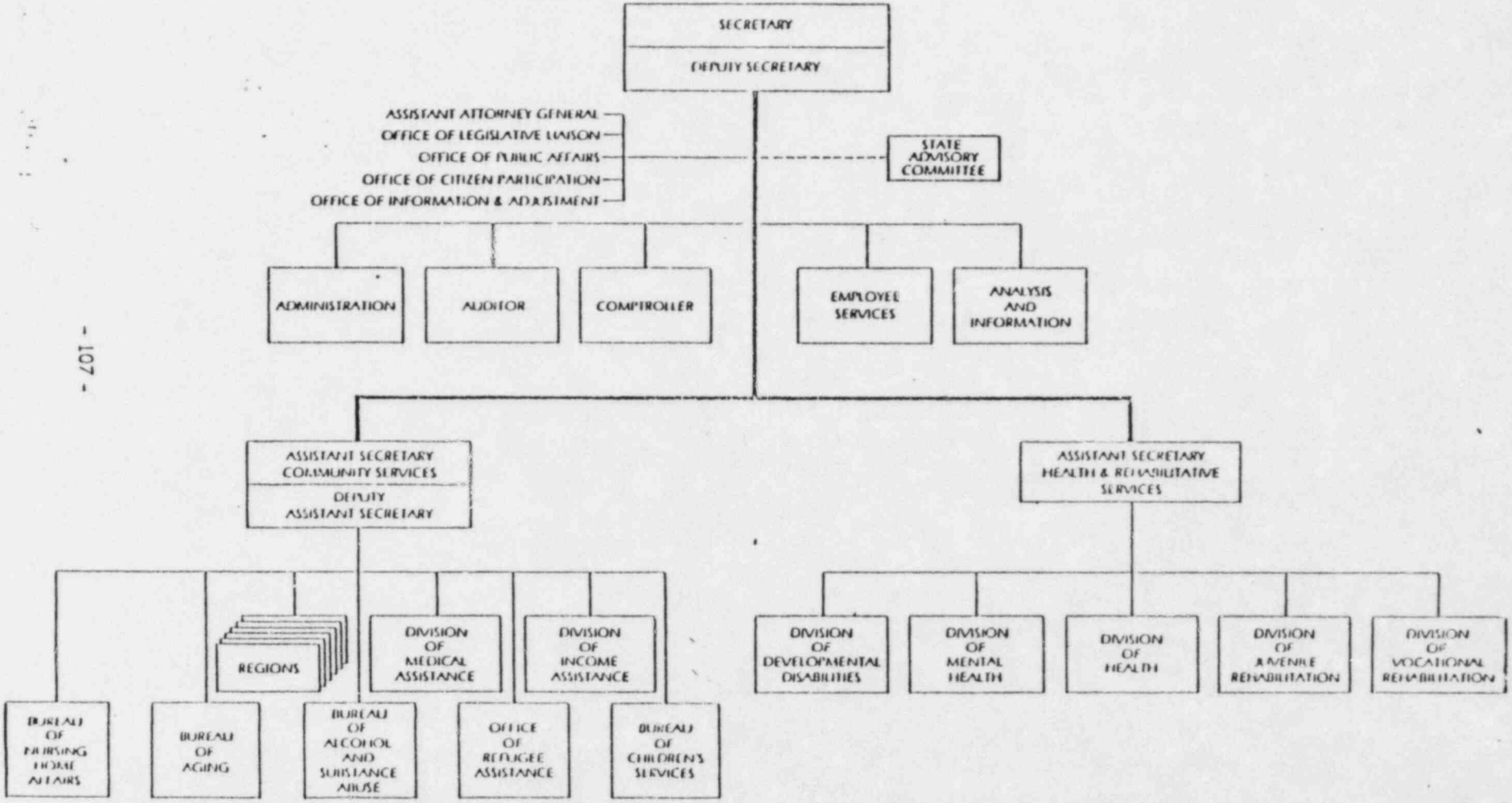
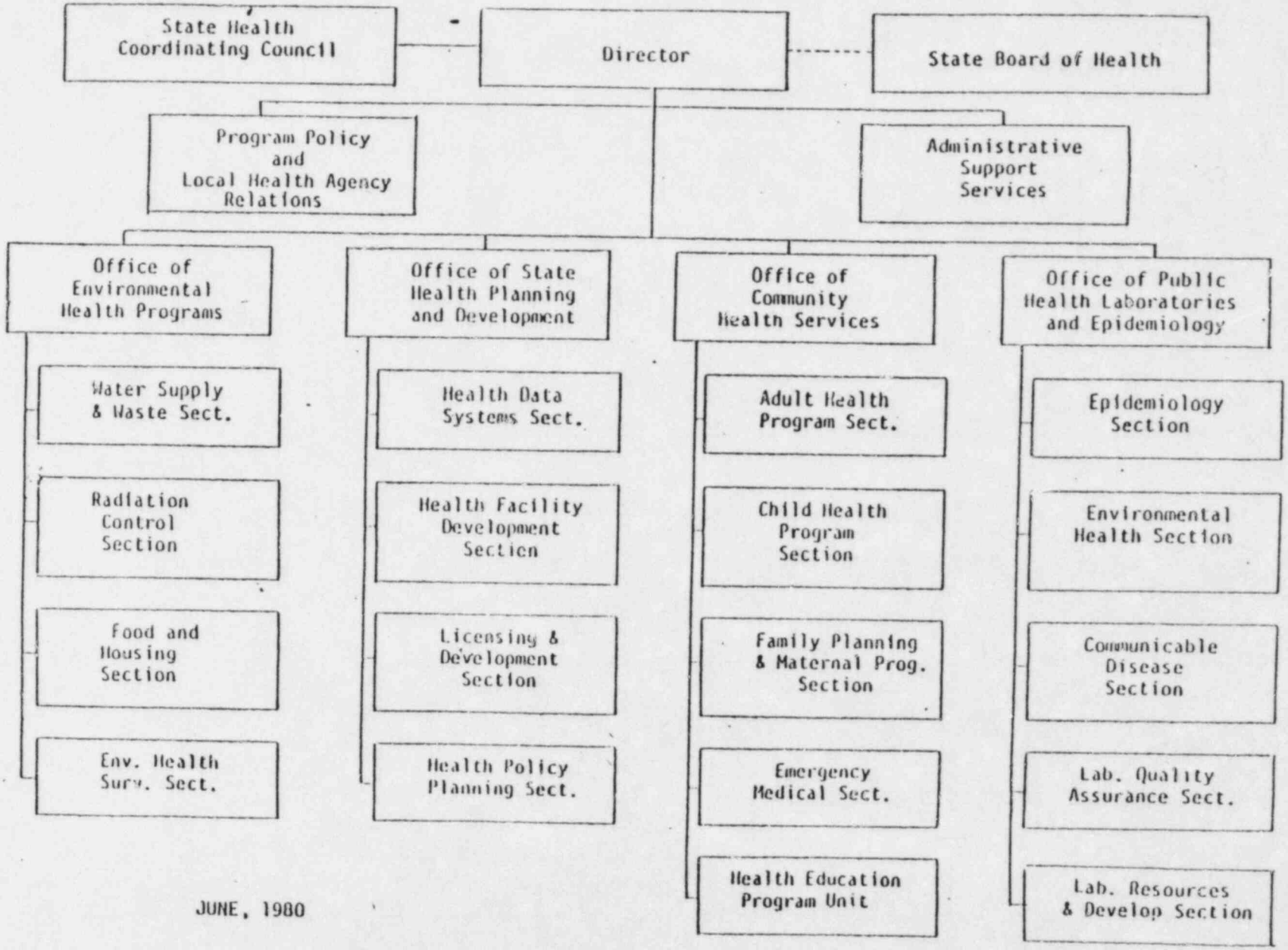


Figure 1

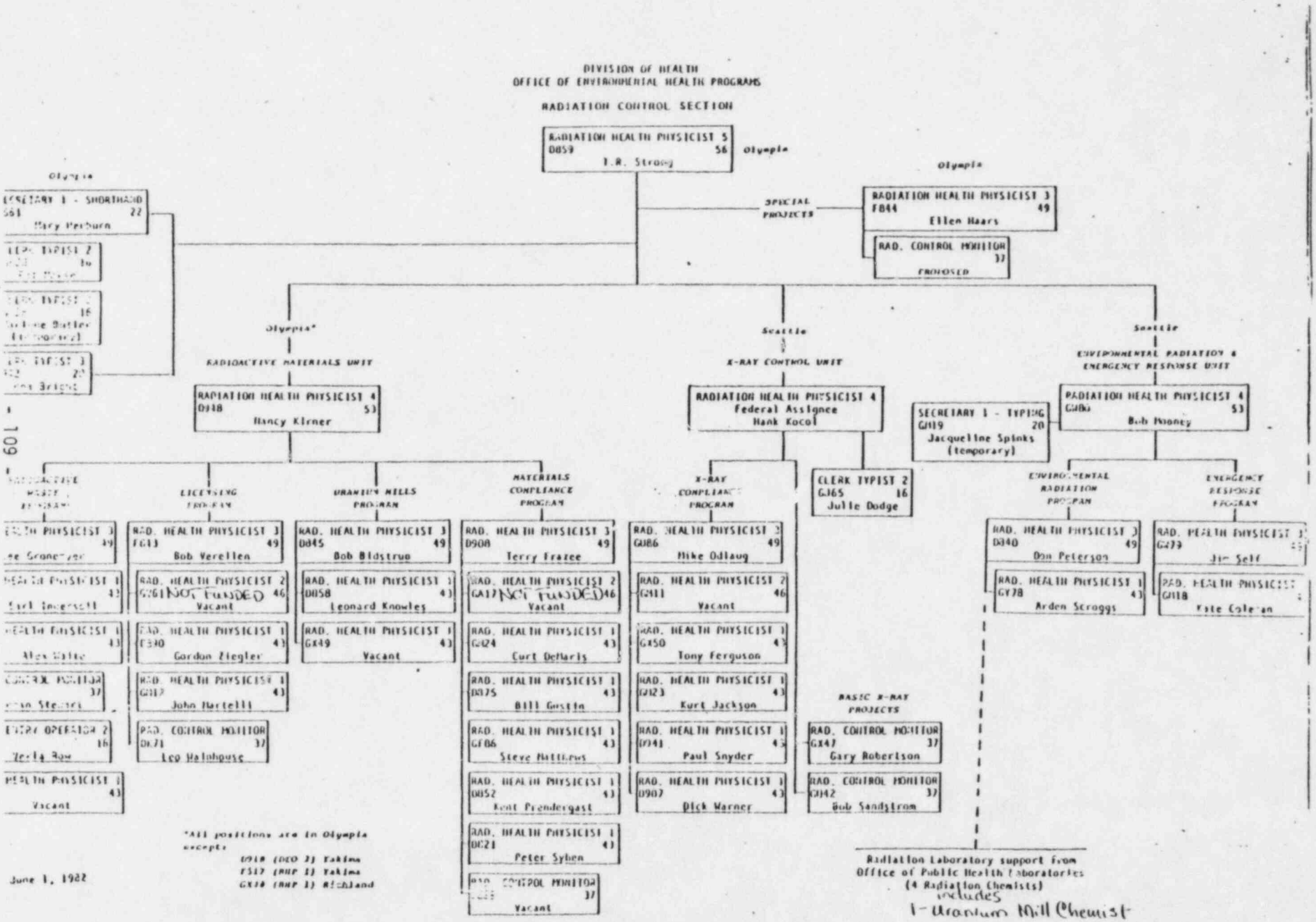
EFFECTIVE MAY 18, 1981

DIVISION OF HEALTH



JUNE, 1980

Figure 2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OFFICE OF ENVIRONMENTAL HEALTH PROGRAMS
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D859 56
T.R. Strong
Olympia
SPECIAL PROJECTS
Olympia
RADIATION HEALTH PHYSICIST 3
F844 49
Ellen Haars
RAD. CONTROL MONITOR
37
PROPOSED
Olympia*
RADIOACTIVE MATERIALS UNIT
RADIATION HEALTH PHYSICIST 4
D918 53
Nancy Kirner
Seattle
X-RAY CONTROL UNIT
RADIATION HEALTH PHYSICIST 4
Federal Assignee
Hank Kocol
Seattle
ENVIRONMENTAL RADIATION & EMERGENCY RESPONSE UNIT
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Bob Mooney
SECRETARY 1 - TYPING
G419 20
Jacqueline Spinks
(temporary)
CLERK TYPIST 2
G365 16
Julie Dodge
LICENSING PROGRAM
RAD. HEALTH PHYSICIST 3
F833 49
Bob Verellen
RAD. HEALTH PHYSICIST 2
G261 NOT FUNDED 46
Vacant
RAD. HEALTH PHYSICIST 1
E340 43
Gordon Ziegler
RAD. HEALTH PHYSICIST 1
G317 43
John Martelli
RAD. CONTROL MONITOR
D671 37
Leo Halahouse
URANIUM MILLS PROGRAM
RAD. HEALTH PHYSICIST 3
D845 49
Bob Bildstrup
RAD. HEALTH PHYSICIST 1
D858 43
Leonard Knowles
RAD. HEALTH PHYSICIST 1
G449 43
Vacant
MATERIALS COMPLIANCE PROGRAM
RAD. HEALTH PHYSICIST 3
D908 49
Terry Frazee
RAD. HEALTH PHYSICIST 2
GA17 NOT FUNDED 46
Vacant
RAD. HEALTH PHYSICIST 1
G424 43
Curt Dellaris
RAD. HEALTH PHYSICIST 1
D875 43
Bill Gustin
RAD. HEALTH PHYSICIST 1
GF06 43
Steve Matthews
RAD. HEALTH PHYSICIST 1
D852 43
Kent Prendergast
RAD. HEALTH PHYSICIST 1
D821 43
Peter Syben
RAD. CONTROL MONITOR
37
Vacant
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RAD. HEALTH PHYSICIST 3
G386 49
Mike Odlaug
RAD. HEALTH PHYSICIST 2
G411 46
Vacant
RAD. HEALTH PHYSICIST 1
G450 43
Tony Ferguson
RAD. HEALTH PHYSICIST 1
G423 43
Kurt Jackson
RAD. HEALTH PHYSICIST 1
D941 43
Paul Snyder
RAD. HEALTH PHYSICIST 1
D907 43
Dick Warner
BASIC X-RAY PROJECTS
RAD. CONTROL MONITOR
G347 37
Gary Robertson
RAD. CONTROL MONITOR
G342 37
Bob Sandstrom
ENVIRONMENTAL RADIATION PROGRAM
RAD. HEALTH PHYSICIST 3
D340 49
Don Peterson
RAD. HEALTH PHYSICIST 1
G478 43
Arden Scroggs
EMERGENCY RESPONSE PROGRAM
RAD. HEALTH PHYSICIST 3
G473 49
Jim Self
RAD. HEALTH PHYSICIST
G418
Kate Coleman
Radiation Laboratory support from
Office of Public Health Laboratories
(4 Radiation Chemists)
includes
1 - Uranium Mill Chemist
*All positions are in Olympia
except:
D918 (DOE 3) Yakima
F517 (RHP 3) Yakima
GX38 (RHP 3) Richland
June 1, 1982

Figure 3

- Environmental Radiation and Emergency Response (ERER).

The Materials Unit includes the Agreement State Program and is located near the State Capitol Complex in Olympia, Washington. The X-Ray Control and Environmental Radiation and Emergency Response Units are located in Seattle in order to be in closer proximity to the users of radiation sources. Laboratory support for RCS activities is provided by the Office of Public Health Laboratories within the same division of the DSHS. The RCS budget supports four full-time professionals with the laboratory for radiological work, but the section has no administrative jurisdiction over these personnel or the laboratories' functions.

The X-Ray Control Unit is not involved in any of RCS activities required under the Agreement State Program. The Materials and Environmental Radiation and the Emergency Response units respectively share the section's responsibilities for these programs with the Materials Unit having the major share of responsibility (see figure 3). The Materials Unit is organized into four program divisions: radioactive waste, uranium mills, licensing, and compliance. Licensing and compliance serve the materials, waste disposal, and uranium mills programs. The Environmental Radiation and Emergency Response Unit has responsibility for emergency response, environmental monitoring, and the necessary coordination services that have to be carried out by the radiation laboratory within the Public Health Laboratories. The Environmental Radiation Program is responsible for all the environmental monitoring activities of RCS. This includes monitoring of the low-level disposal site at Hanford, the uranium mills, and a separate program under a contract to the Washington State Energy Facility Site Evaluation Council to monitor environmental radiation from the fixed nuclear facilities operated by WPPSS, Puget Power and Portland General Electric Company. The Emergency Response Program is responsible for coordinating section response to incidents at all Agreement State licensees, including the low-level waste disposal facility and the uranium mills. In addition, under a separate contract to the Energy Facility Site Evaluation Council, paid for by the utilities and independent of any of the NRC agreement activities, this unit is also responsible for auditing emergency response plans for fixed nuclear facilities and conducting associated environmental monitoring in an emergency.

The RCS is organized in order to maximize the use of trained professional staff materials to provide technical support for the principal areas of responsibility – materials licensing, waste management, uranium mills operation, and emergency response with a minimum of duplication of function. Licensing handles all licenses; compliance deals with all compliance programs; monitoring, all environmental monitoring. This management

alternative has been determined to serve the State more efficiently than establishing separate programs in each area, each with its own licensing and compliance activities.

In the section detailing specific programs, the descriptions are organized according to the major areas of responsibility the State has assumed under the NRC Agreement State Program and the uranium mill program, rather than by the RCS divisions. This was done in order to demonstrate the interrelationship among the various units and how they function in carrying out the State's mandated responsibilities.

Budget and Staff

The state government budget is prepared on a biennial basis. The budget development process is similar to that of other states, with the RCS budget prepared by the Section Director for internal review. This budget is submitted through the channels for inclusion in the Department's request to the Governor and legislature. Though the Section operating budget is now completely covered by user and/or licensing fees, other monies collected are put into the general fund and disbursed through legislative appropriations in the same manner as when the Section received all its support from general revenues.

Though past biennium budgets (including the current one under which the State functions until the end of 1983) were prepared by defining objectives, then requesting the necessary support from general revenues, future submissions will have to take into account revenues generated from fees to cover operating costs. Either staff levels or functions must be set accordingly or a change in fees sought in order to meet costs. General section support and administrative functions, it seems, will continue to be supported from general revenues.

The Radiation Control Section annual budget currently supports a staff of 44 (December 1982) and is estimated at $1.7 million. The budgets for the individual programs and functions are listed in Table 2. The staff allocation for major units is as follows:

TABLE 1

Program	Staff
X-Ray Control	8
Materials	23
Environmental Radiation Emergency Response	8
Section administration support	5

Included in the budget is support for 4 full-time professional staff in the Radiation

Laboratory of the Public Health Laboratories. Of the total complement of 23 within the Materials Unit, 11 are assigned to general licensing and compliance activities; 6.5 to the radioactive waste disposal unit; and 5 to the uranium mills program.

TABLE 2

X-ray Control (user fees)	$ 225,000
Radioactive Materials Control (user fees)	412,000
Uranium Mill Control (user fees)	150,000
Environmental Radiation and Emergency Response (one FTE from general fund)	250,000
Radioactive Waste Disposal Control (fees)	400,000
FDA Contract for Compliance Field Testing	25,000
U.S. DOE Grant for NW Interstate Compact on Low-Level Waste Management	125,000
Section Support (state general fund)	150,000
TOTAL	$1,681,000

Revenues

Up until the assessment of the site surveillance surcharge to cover the issuance of low-level waste disposal site user permits and onsite inspection and monitoring in 1979, RCS was entirely dependent on general fund revenues to cover program costs. With the subsequent passage of the uranium mills control and the radioactive materials fee legislation, however, the RCS operating budget is intended to be supported by user and licensing fees. According to current projections, the collected revenues should cover about 90 percent of the entire annual budget of the Section. This is based on the intent of the legislature to continue to fund general administrative overhead, at a level of about $150,000 a year, in an overall budget of about $1.7 million.

Besides receiving revenues from fees and general appropriations, the RCS has contracted with the Energy Facility Siting Evaluation Council to conduct off-site environmental monitoring of fixed nuclear facilities, audit the utilities' emergency response capability and provide emergency response support. For 1982, the contract amounted to $258,000 and supported 5.5 staff.

In addition to the above fees which are intended solely to support the RCS programs, the state legislature enacted legislation in July 1982 which levied a special "tax," for general revenue purposes, on a variety of services and commodities including the disposal of waste at the Hanford facility. This tax which is assessed on the site operator, U.S. Ecology, is set at 30 percent of the gross income generated by the disposal of low-level waste at the site. Based on current projections, this means that about $7.8 million will be collected per biennium and deposited in the general revenue fund as a direct result of the

State's operating a low-level waste disposal site. None of this revenue is intended to support RCS functions.

Program Evaluation

RCS program evaluation is carried out through a self-audit of the section activities using NRC compatibility review guidelines. This practice was initiated in 1978/79 and is now the principal management tool used in program evaluation. The self-audits are scheduled to be conducted six months prior to an NRC review.

Interrelationships with Other Agencies and Offices

The RCS, as noted, is the sole authority over the uses of ionizing radiation in the State. However, five other agencies, (the State Patrol, the Department of Labor and Industry, the Energy Facility Site Evaluation Council, the Public Health Laboratories, and the State Energy Office have designated duties to perform regarding the use or possession of radioactive materials.

Under the 1979 Executive Order, the State Patrol is charged with performing a safety inspection on every vehicle carrying low-level waste destined for the Hanford site at the designated state entry point. The Patrol does not have authority to open shipments or packages. The Patrol's responsibility is limited to assuring compliance with DOT vehicular safety regulations. If the shipment is found to be leaking, or radiation is detected that is beyond allowed limits, the Patrol calls the RCS emergency response unit.

The State Department of Labor and Industry, under an OSHA agreement, has the authority to inspect and correct radiation hazards in the workplace from non-ionizing radiation sources. If a Labor and Industry Department inspector finds a problem with an ionizing radiation source, the RCS is called to take corrective action. In such an instance, the RCS can act to close a facility, if it is determined that a radiation hazard exists. The Section can also inform the Labor and Industry Department of the problem and request it to act on other occupational hazards observed by RCS staff.

The Energy Facility Site Evaluation Council (EFSEC) has a certification agreement with utilities operating nuclear power plants stipulating that the companies' emergency response plans and environmental monitoring programs must be in compliance with EFSEC requirements. The EFSEC, in turn, has executed a contract with the DSHS (paid for by the utilities) to assure that the utilities' plans are in compliance with the agreement and to conduct off-site monitoring. RCS carries out the services agreed to in the contract.

The Office of Public Health Laboratories within the Division of Health provides laboratory support to the Radiation Control Program as required and paid for out of RCS's

budget. The Section has no administrative jurisdiction over the Laboratories' function or staff. Currently, four laboratory personnel service RCS' needs.

The State Energy Office controls the land within the Hanford Reservation on which the LLW disposal site is located. The SEO sets lease fees, PC & M fund contributions, and Closure Fund contributions to be paid by the site operator. The RCS works closely with the SEO.

Legislative Oversight

There is minimal oversight of the Radiation Control Section by the legislature. There are committees on energy in both houses, but they have never conducted formal oversight hearings on RCS activities or of the Agreement State Program. The budget for the RCS does not show up as a separate line item in the State Appropriation Act, but is folded into the request within the Environmental Health programs. Though the RCS budget receives careful review inside the Department, it is not closely scrutinized by the legislature. The legislature, however, has been involved in specific issues, e.g enactment of legislation to enable the State to continue to regulate uranium mills in conformance with UMTRCA requirements, and in low level waste disposal issues.

Specific Program Areas

General Radioactive Material Possession and Use

Responsibilities and Staff. The licensing and compliance programs within the RCS Materials Unit have the respective responsibilities of processing the licenses and inspecting them to assure compliance for all radioactive material licensees, including the low-level waste disposal facility and the uranium mills. These two programs are the core of RCS's Agreement State Program and would remain, if the state had neither uranium mills or a low-level disposal site. The Agreement Materials Program accounts for eleven staff members.

Rules and Regulations. The necessary rules and regulations governing the Materials Possession Program and all other programs are developed by the Special Projects Unit together with the section head. Once proposed rules are drafted, they are sent to the DSHS General Counsel for review, and if approved, they proceed to the Office of Administrative Regulation within the Department, where a Hearing Office is assigned to conduct a public hearing. The process is conducted outside RCS jurisdiction.

Public Hearings. No public hearings are conducted with regard to the issuance of material licenses or implementing a compliance action except in the area of uranium

mills. The RCS is not precluded from holding such public hearings but has not been requested to do so.

Advisory Committees. The RCS has established an eleven-member Radiation Advisory Committee to provide technical advice in matters dealing with radioactive materials (see membership list, Attachment A). All members are licensees and represent a broad spectrum of the radioactive material user community. Formal meetings are held quarterly, but advice is sought from members whenever it is necessary. The Committee's recommendations are purely advisory in nature and need not be followed by the RCS Director or the Department. The Committee has no role in setting policy, developing rules and regulations or in granting or revoking of a materials license.

Inspection/Compliance/Monitoring. Inspection of all licensees is carried out by the Compliance Program staff. A regular inspection schedule has been established that ranges from one to five years, depending on the priority of the license. Except for a radiological emergency the only on-site monitoring of general licenses that is conducted is during the compliance inspection.

Emergency Response. Though the state radiation control enabling legislation does not provide the DSHS-RCS explicit authority for emergency response, the Department has interpreted its mandate as including this function. Also, under the Agreement State Program, the State must have the capacity to respond to a radiological emergency involving a licensee. This capacity is provided by the Emergency Response Program within the Environmental Radiation and Emergency Response unit (ERER) located in Seattle. The Emergency Response Program staff, together with its companion staff in the Environmental Radiation Program, would also be responsible for any on- or off-site environmental monitoring during a radiological emergency.

Laboratory Support. Any laboratory work that is required to be performed regarding the issuance of a license, a compliance inspection or is associated with environmental monitoring is directed by the ERER unit and carried out by the radiation laboratory support staff within the Office of Public Health laboratories.

Training. The RCS staff makes full use of the training courses offered by NRC's Office of State Programs and makes extensive use of administrative personnel and management training operations offered by the DSHS.

Public Education. The RCS does not have an active public education program, but is available to conduct seminars or workshops upon request to do so. Technical assistance workshops are held for industrial radiographers at their annual meeting.

Radioactive Waste Disposal

Responsibilities/Staff/Organization. The RCS' responsibilities over the low-level waste disposal site at Hanford are shared by three programs within the Materials Unit; licensing, material compliance, and radioactive waste (RW) and both programs within the Environmental Radiation and Emergency Response (ERER). The support provided by Licensing and Compliance has already been described.

The organizationally separate Radioactive Waste Program staff of seven members is responsible for issuance of the site user permits, on site inspection of all arriving waste shipments, and part of the on-site environmental monitoring. On-site inspection of site operation is performed by the compliance program. The bulk of the work of the RW staff is primarily directed toward the users of the low-level waste facility rather than the site operation.

Environmental Monitoring/Emergency Response. As a result of the 1979 action earlier described, RCS was directed to conduct on-site environmental monitoring at the Hanford facility. This responsibility is primarily carried out by the Environmental Radiation Program within the ERER unit. Emergency response at the site remains with the ER program within the same unit.

Other Activities/Functions. The RCS maintains no special advisory committees, training programs, rules or regulations staff, or public education activities dealing with the operation of the low-level waste disposal facility.

Uranium Mill Control

Responsibilities/Staff/Organization. The responsibility for the state Uranium Mills Control Program authorized under 1980 state legislation and the NRC-amended agreement is again shared by the License Program staff, responsible for granting of the licenses, the Compliance Program, responsible for site inspection, the programs within the ERER unit, and also a separate staff – the Uranium Mills Program staff – charged with carrying out functions unique to the Uranium Mills program.

The Uranium Mills Program currently has a staff of six and has the responsibility for the preparation of safety evaluation reports, the development of environmental impact statements (EIS) to cover mill closings and openings, working with the Licensing Program in license applications and participates in on-site inspection.

As previously noted, there are two existing mill operations in the State. They are now temporarily closed. Another one is proposing to open and is submitting an application for a license.

The Licensing Program staff remains responsible for the issuance of a uranium mills license. However, licensing a uranium mill operation or issuing authorization for maintaining a tailings impoundment is a separate process, distinct from that of general radioactive materials procedures. The steps that must be followed are defined in state legislation and are in accord with the amended NRC agreement. They include completing an environmental impact statement under procedures defined in the state Environmental Protection Act and holding a public hearing on the license application. Compliance inspection is still carried out by the compliance staff.

Preparation of an EIS has yet to be carried out by the Uranium Mills staff since the two existing mills were in operation prior to the law's being enacted. Neither has sought approval to permanently close. If the application for the third mill proceeds, the RCS plans to conduct the EIS in-house and would therefore increase the staff accordingly. The initial license application fee, set by regulation at $165,000, is intended to cover all of the costs associated with the application, including the EIS and the public hearings.

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APPENDIX A

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

October, 1982

THE NUCLEAR REGULATORY COMMISSION'S PROGRAM FOR TRANSFER OF REGULATORY AUTHORITY TO STATES

Prior to enactment of the Atomic Energy Act of 1954, nuclear energy activities in the United States were largely confined to the Federal Government. The Act made it possible for private commercial firms to enter the field for the first time. Because of the hazards associated with nuclear materials, Congress determined that these activities should be regulated under a Federal licensing system to protect the health and safety of workers in the nuclear industry and the public. The Nuclear Regulatory Commission is the Federal agency charged with this responsibility.

Although protection of the public's health and safety has traditionally been a State responsibility, the Atomic Energy Act of 1954 did not specify such a role for the States in nuclear matters. This policy was changed in 1959 when Congress enacted Section 274 of the Atomic Energy Act. Section 274 spells out a State role and provides a statutory basis under which the Federal Government can relinquish to the States portions of its regulatory authority. The 1959 amendment made it possible for the States to license and regulate byproduct material (radioisotopes),[1] source material (the raw materials of atomic energy), and small qualtities of special nuclear material. The Commission is required, however, to retain regulatory authority over the licensing of nuclear facilities such as reactors, exports and imports of nuclear materials and facilities, larger quantities of fissionable material, consumer products and certain types of radioactive wastes. Section 274 was amended in 1978 by the passage of the Uranium Mill Tailings Radiation Control Act of 1978 which requires, those States which wish to continue regulating uranium and thorium tailings resulting from recovery operations to adopt certain technical and procedural requirements. The 1978 amendment also requires NRC to periodically review Agreement State programs for adequacy and compatibility.

Section 274j of the Atomic Energy Act provides that the NRC may terminate its agreement with a State if the Commission finds that such termination is necessary to protect the public health and safety. In 1980, Section 274j was amended to authorize the Commission to temporarily suspend all or part of an agreement with a State in the case of an emergency situation. Such suspensions may remain in effect only for the duration of the emergency. A copy of Section 274 of the Act, as amended, is enclosed (Enclosure 1).

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1 In 1978, Congress enacted the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) which, among other things, added to the category of byproduct material "tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content."

The mechanism for the transfer of NRC's authority to a State to regulate the radiological health and safety aspects of nuclear materials is an agreement between the Governor of the State and the Commission. Criteria for such agreements have been published by NRC as a Policy Statement in the Federal Register (Enclosure 2). A copy of the most recent agreement, with Rhode Island, is enclosed for illustration (Enclosure 3). Before actually signing the document, the Commission, by statute, must determine that the State's radiation control program is compatible with the Commission's, meets the applicable parts of Section 274 and that it is adequate to protect the public health and safety. For its part, the State establishes its authority to enter such an agreement by passing enabling legislation.

At present, twenty-six States have entered into such Agreements with NRC.[2] These States now regulate about 60% of the licensees for byproduct, source material, and special nuclear material in the United States. In 1981 the Commission determined that qualified States may also enter into limited agreements for regulation of low-level waste in permanent disposal facilities.

Each agreement provides that the State will use its best efforts to maintain continuing compatibility with the the NRC's program. The NRC maintains a continuing relationship with each Agreement State to assure continued compatibility of the State's regulatory program and its adequacy to protect health and safety. This relationship includes: exchange of information on a current basis covering regulations, licensing, inspection and enforcement data; consultation on special licensing, inspection, enforcement and other regulatory problems; and an annual meeting of all Agreement States to consider regulatory matters of common interest. Special technical assistance is routinely provided to the States upon request.

As mandated by the Atomic Energy Act, NRC holds on-site, in-depth review meetings periodically with each State in which organizational, administrative, personnel, regulatory, licensing, compliance and enforcement program areas are reviewed. Selected licensing and compliance casework is reviewed in detail. State inspectors are accompanied by NRC staff on selected inspections of State licensees. Additional attention is given to State regulation of uranium mill tailings in those States exercising jurisdication under an amended Agreement over radiation hazards from tailings because of the particular requirements of the Uranium Mill Tailings Radiation Control Act. When program deficiencies are identified, specific recommendations for improvements are developed and formally transmitted to the State for action. Follow-up reviews are made as necessary.

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2 Alabama, Arizona, Arkansas, California, Colorado, Florida, Georgia, Idaho, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Oregon, Rhode Island, South Carolina, Tennessee, Texas and Washington.

NRC provides a wide spectrum of training for State personnel. Examples are short-term courses in health physics, radiography and nuclear medicine safety, program management, and control of uranium mill tailings. Travel costs and per diem for these training sessions are paid by NRC.

Although other Federal agencies, such as the Environmental Protection Agency, the Food and Drug Administration, and the Department of Transportation are also involved in the control of radiati hazards, NRC's Agreement State Program serves as a focal point for Federal-State cooperation in radiation control. The NRC State Agreement Program is implemented by the NRC regional offices in accordance with established policies and procedures developed and maintained by the Office of State Programs.

The staffs of the Office of State Programs and the Regional Offices are ready to meet with representatives of Governors, State agencies, State legislative committees, State advisory groups and others to explain fully the NRC Agreement program. They can provide descriptive materials about these programs and model State acts for regulatory legislation and will also arrange meetings with other NRC staff members on specialized subjects as appropriate.

What are the advantages for a State that takes over the Commission's regulatory authority as described above? The principal advantages are the following:

(a) NRC's authority does not include regulation of x-ray machines and other radiation producing equipment, accelerator-produced radioactive materials, and radium.3 Regulation of these sources for radiation protection is, and always has been, primarily the responsibility of the States. Many States now exercise surveillance over these sources of radiation which, in the aggregate, are responsible for over 75% of the public's exposure to radiation, other than from background. Thus, by assuming the authority which the NRC is authorized to relinquish, a State is able to have, as part of its public health system, a complete and comprehensive program for radiation safety.

(b) Many facilities, including medical institutions and physicians, use radioisotopes as well as x-ray machines and radium. A State regulatory system which covers all such radiation sources enables most users to deal with a single agency rather than with a Federal agency for a part and the State for the remainder.

(c) An agreement with NRC enables a State to make its own licensing decisions and in doing so, to take into account local conditions.

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3 NRC does regulate radium to the extent it occurs in uranium or thorium mill tailings, see footnote 1, p. 1.

(d) The proximity of licensed users of radioactive materials to the regulating agency has been cited as having significant advantanges for both the users and the agency.

(e) Entering into such an agreement with NRC would be consistent with a serious interest of a State in being knowledgeable about all sources of radiation located within its boundaries.

(f) An agreement with NRC enhances the core of knowledgeable people at the State level who can respond to inquiries and incidents.

Administrative costs that are incurred by a State becoming an Agreement State vary from State to State, depending, among other factors, upon whether or not the State already has a radiation control program covering sources of radiation not regulated by the NRC, i.e., x-ray machines, accelerator-produced radioactive materials and radium. Where this is the case, the incremental cost would be less than if the State previously had only a limited or voluntary radiation control program. As a rule of thumb, 1.0-1.5 staff-years per 100 licenses is needed to effectively administer the program assumed from the NRC. This is a rather general index and actual staffing needs will vary according to the particular circumstances in any given State. Further, those States which have major licensed facilities in their State, such as low level burial grounds and uranium mills, will need additional resources. NRC staff can provide further guidance on staffing requirements for regulating in these areas.

NRC charges most of its licensees license application and inspection fees. Whether or not an Agreement State charges fees is a matter of choice for the State. NRC does not provide funding to States for routine program costs. Some Agreement States fund their programs out of general revenues and plan to continue doing so. The majority of the Agreement States, however, have authorized collection of user fees as a means of assuring an adequate funding base. As a result of these States' fees and those of NRC, over two-thirds of the licensees in the United States are licensed by agencies authorized to charge user fees. NRC has prepared model State legislation which includes authorization for a fee system. NRC staff can assist States in developing fee systems.

The Agreement State experience since 1962, the date of the first Agreement, has been that the States generally conduct effective radiation control programs. When major program deficiencies are noted by NRC, technical advice, assistance and training is offered by NRC (within its resources). The main area of concern is maintaining adequate staffing levels, a reflection of State salary structures and funding. On the other hand, Agreement States typically excel in having highly trained staff and by conducting more frequent inspections.

Note: Enclosures have been omitted for the purposes of this report. A complete copy of this NRC document including enclosures is obtainable from the NRC Office of State Programs, Washington, DC 20555.

APPENDIX B

AGREEMENT STATES

	Agreement States	Effective Dates of Agreement
1.	Kentucky	03/26/62
2.	California	09/01/62
3.	Mississippi	07/01/62
4.	New York	10/15/62
5.	Texas	03/01/63
6.	Arkansas	07/01/63
7.	Florida	07/01/64
8.	North Carolina	08/01/64
9.	Kansas	01/01/65
10.	Oregon	07/01/65
11.	Tennessee	09/01/65
12.	New Hampshire	05/16/66
13.	Alabama	10/01/66
14.	Nebraska	10/01/66
15.	Washington	12/31/66
16.	Arizona	05/15/67
17.	Louisiana	05/01/67
18.	Colorado	02/01/68
19.	Idaho	10/01/68
20.	North Dakota	09/01/69
21.	South Carolina	09/15/69
22.	Georgia	12/15/69
23.	Maryland	01/01/71
24.	Nevada	07/01/72
25.	New Mexico	05/01/74
26.	Rhode Island	01/01/80

APPENDIX C

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APPENDIX D

NATIONAL GOVERNORS' ASSOCIATION AGREEMENT STATE PROGRAM REVIEW
ASSESSMENT OF STATE ATTITUDES
SURVEY FOR NON-AGREEMENT STATES

A. MEMBERSHIP

1. Why has your state not become an Agreement State?

2. Has your state passed legislation authorizing Agreement State membership? When?

3. Does your state see advantages to the Agreement State Program?

4. What inducements would your state need to become an Agreement State? (federal assistance, training opportunities, demonstrable improvement in radiation protection)

B. STRUCTURE

1. What radiation sources are regulated by whom in your state?

2. Do you license non-agreement materials?

3. Where is the radiation control program located in the organizational structure of your state? What agency? What level (bureau, division, section)?

4. Is the radiation control program consolidated or distributed to several agencies?

C. PERSONNEL

1. How many full time employees are employed by the radiation control programs in your state? How many part time employees?

2. Have any of your radiation control personnel been instructed at NRC training sessions?

3. What is the opinion of state staff about the quality and value of NRC training sessions?

4. Does your state have difficulty retaining qualified personnel because of salary differentials with private industry, the federal government or academic institutions?

5. Has your state lost technical personnel to other employers after they have taken an NRC training course?

6. Should some means of recovering the costs of training personnel be instituted if they leave the state's employment soon after completing expensive training?

7. What changes, deletions or additions would you like to see in the NRC training programs?

8. How many new personnel would have to be hired if you become an Agreement State?

D. FUNDING

1. How large is your state's annual radiation control budget?

2. What are the sources of funds for your state's radiation control program? Appropriations, user fees, contracts, are a combination thereof?

3. Does your state have a dedicated fund derived from user fees? Does it have legislative authority to institute a user fee? If not, could one be adopted based on your knowledge of the preferences of the executive and legislative branches of your state government?

4. If your state collects user fees for the radiation health program, what percentage of the total costs of the state's radiation control program are covered?

5. Do you think the federal government should provide states with financial assistance to carry out Agreement State responsibilities?

6. Would Agreement State membership increase the costs of radiation control in your state? How much?

7. Is the prospect of increased costs the chief reason your state has not joined the Agreement State Program?

8. How would licensees in your state regard your joining the Agreement State Program?

E. PARTIAL AGREEMENT STATE PROGRAM

1. Would your state consider becoming a partial Agreement State?

2. What does your state see as the advantages and disadvantages of the partial Agreement State option?

F. FEDERAL LEGISLATION AFFECTING THE AGREEMENT STATE PROGRAM

1. Are there mill tailings sites in your state?

2. Has the passage of federal mill tailing legislation affected the state's views towards becoming an Agreement State?

3. Does your state regulate a low level waste disposal site?

4. Has passage of the Low Level Radioactive Waste Policy Act affected the operation of your radiation control program?

5. Has the Act affected the state's views towards Agreement State status?

6. Does your state recommend any changes in the Agreement State Program as a result of the passage of the Low Level Waste Policy Act?

7. If your state joins a regional low level waste compact, does it consider Agreement State membership advisable? Necessary?

G. NRC PERFORMANCE IN NON-AGREEMENT STATES

1. How often does NRC inspect the facilities it regulates in your state?

2. Are you aware of NRC visitations to inspect in your state? Are you given an opportunity to accompany the NRC inspectors?

3. How do you rate the performance of NRC in your state in providing adequate radiation control at the facilities it regulates?

4. Is NRC's performance a factor in your state's plans regarding becoming Agreement State?

5. Should the NRC materials regulatory program be subject to periodic review and evaluation in the same manner that Agreement State Programs are?

6. NRC is regionalizing many of its functions including materials licensing and oversight of the Agreement States Program. Will this have any effect on your views on the Agreement State Program?

H. AGREEMENT STATE ASSESSMENT

1. Should the Agreement State Program be continued?

2. Are there alterations or improvements which your state would suggest for the Agreement State Program?

STATE AND AGENCY _____

Name of State Representative who may be contacted for follow-up purposes:

_____

Do you wish to be contacted for further discussions? _____

Signature of RCP Director _____ Date _____

NATIONAL GOVERNORS' ASSOCIATION AGREEMENT STATE PROGRAM REVIEW
ASSESSMENT OF STATE ATTITUDES
SURVEY FOR AGREEMENT STATES

A. MEMBERSHIP

1. When did your state become an Agreement State?

2. When did your state obtain authorizing legislation to become an Agreement State?

3. Why did your state choose to become an Agreement State?

4. Has your state considered leaving the Agreement State Program?

5. What circumstances would persuade your state to relinquish Agreement State status?

6. What does your state consider the advantages of the Agreement State Program?

7. What does your state consider the disadvantages of the Agreement State Program?

B. STRUCTURE

1. What radiation sources are regulated by whom in your state?

2. Where is the radiation control program located in the organizational structure of the state? What agency? What level-bureau, division, section?

3. Is the radiation control program consolidated or distributed among several agencies?

4. Has membership in the Agreement State Program altered the structure of your radiation control program?

C. PERSONNEL

1. How many full time employees are employed by the radiation control programs in your state? How many part time employees? Of this total, how many work specifically on the Agreement State Program?

2. Has the number of radiation control personnel in your state been affected by Agreement State membership? How?

3. Have any of your radiation control personnel been instructed at NRC training sessions?

4. What is the opinion of state staff about the quality and value of NRC training programs? Have some courses proven more useful than others? Has the 10-week program caused difficulties because of the lengthy absense required for attendances?

5. Are the NRC training programs a major benefit of the Agreement State Program for your state?

6. Does your state have difficulty retaining qualified personnel because of salary differentials with private industry, the federal government or academic institutions?

7. Has your state lost technical personnel to other employers after they have taken an NRC training course?

8. Should some means of recovering the costs of training personnel be instituted if they leave the state's employment soon after completing expensive training?

9. What changes, deletions or additions would you like to see in the NRC training programs?

D. FUNDING

1. How large is your state's annual radiation control budget? What percentage is devoted to the Agreement State Program?

2. What are the sources of funds for your state radiation control program? Appropriations, user fees, contracts, or a combination thereof?

3. Does your state have a dedicated fund derived from user fees? Does it have legislative authority to institute a user fee? If not, could one be adopted based on your knowledge of the preferences of the executive and legislative branches of your state government?

4. If your state collects user fees for the radiation health program, what percentage of the total costs of the state's radiation control program are covered?

5. Do you think the federal government should provide states with financial assistance to carry out Agreement State responsibilities?

E. PARTIAL AGREEMENT STATE PROGRAM

1. Would your state consider relinquishing any of its regulatory responsibilities to become a partial Agreement State?

2. What does your state see as the advantages and disadvantages of the partial Ageement State option?

F. FEDERAL REGULATIONS AFFECTING THE AGREEMENT STATE PROGRAM

1. Does your state regulate mill tailings?

2. Has the passage of federal mill tailings legislation resulted in improvements in the effectiveness of your Agreement State Program for mills and mill tailings?

3. Should additional changes in the Agreement State Program legislation along the lines of the federal mill tailings legislation be made for other segments of the Agreement State Program?

4. Does your state regulate a low level waste disposal site?

5. Has passage of the Low Level Radioactive Waste Policy Act affected the operation of your Agreement State Program or will it affect operations should your state become a member of a regional compact?

6. Does your state recommend any changes in the Agreement State program as a result of the passage of the Low Level Radioactive Waste Policy Act?

G. NRC REVIEW AND ACCREDITATION OF AGREEMENT STATE PROGRAM

1. How often does the NRC review your Agreement State Program performance?

2. How thorough and accurate, in your opinion, is the NRC's review?

3. What is your opinion of the NRC criteria used to judge the Agreement State Program?

4. What is your opinion of the NRC's compatibility requirements? Should they be altered? If so in what fashion?

5. Should the NRC's materials regulatory program be subject to periodic review and evaluation in the same manner that Agreement States Programs are?

6. Does your state have any suggestions for alternative means of assessing Agreement State Program performance other than NRC review?

7. How does your State Liaison Officer relate to the Agreement State Program?

8. Should the State Liaison Officer program be continued? Do you have suggestions for restructuring the program?

H. AGREEMENT STATE ASSESSMENT

1. Should the Agreement State Program be continued?

2. NRC is regionalizing many of its functions including materials licensing and oversight of the Agreement State Program. Will this have any effect on your relationship with the Agreement State Program?

3. Are there alterations or improvements which your state would suggest for the Agreement State Program?

4. Do you feel states are given adequate opportunity to comment on proposed NRC regulations, criteria and documents affecting the Agreement State Program?

STATE AND AGENCY _____

Name of State Representative who may be contacted for follow-up purposes:

_____

Do you wish to be contacted for further discussions? ___ _____ _____

Signature of RCP Director _____ Date _____

APPENDIX E

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APPENDIX F

BASIC HEALTH PHYSICS TRAINING QUESTIONNAIRE

1. Attached is a list of individuals from your State that have attended the Ten-Week Oak Ridge Course in the past five years. Indicate if they are still with the radiation control program or, if not, the date (month and year) they left the program.

2. Do you consider ten weeks too long for a basic health physics course?

   Yes 33% No 67%

3. Are you currently able to relieve an employee of this duties for ten weeks of training?

   Yes 79% No 21%

4. Are there any restrictions in your State concerning out-of-State travel for extended periods?

   Yes 25% No 75%

5. Do you feel that the current Ten-Week Course over-qualifies individuals for a State radiation contol program, i.e., more likely to seek other employment opportunities?

   Yes 13% No 87%

6. How many individuals on your staff currently need a training course in basic health physics? 105

7. Do you currently plan to take advantage of the 1983 Ten-Week course, if offered?

   Yes 62% No 38%

   If yes, how many slots would you request? 34

8. If shorter courses in basic health physics were offered, would your state be able to take advantage of them?

5 weeks	Yes 86%	No 14%
2 weeks	Yes 95%	No 5%
1 week	Yes 95%	No 5%

9. In terms of allocating limited resources, which of the following alternatives do you consider more appropriate for NRC for follow:

17%	A. 10 weeks of training for 20 State personnel.
35%	B. 5 weeks of training for 40 State personnel.
17%	C. 2 weeks of training for 100 State personnel.
	D. 1 week of training for 200 State personnel.

10. Based on your current needs which length course would be most beneficial to you?

10 weeks	24%
5 weeks	44%
2 weeks	24%
1 week	8%

11. Do you feel that 5 weeks of basic health physics training is adequate for new personnel in a State radiation control program?

Yes 75% No 25%

2 Weeks?

Yes 19% No 81%

1 Week?

Yes 14% No 86%