



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 10, 1995

David R. Smith, M.D.
Commissioner
Texas Department of Health
1100 West 49th Street
Austin, TX 78756

Dear Dr. Smith:

Thank you for your letter of February 9, 1995, responding to the comments and recommendations resulting from our 1994 review of the Texas agreement materials program.

Your responses provided detailed information on how you have addressed or are addressing each of the recommendations. We will evaluate the progress made in each area during our next program review.

You identified one discrepancy in our report, which concerned the indicators, Adequacy of Product Evaluations and Responses to Actual and Alleged Incidents. You are correct in noting that the Department did meet each of these indicators. Our recommendations regarding each indicator were directed at areas the Department should consider to further enhance the level of performance in each of these indicator areas. We apologize for any confusion that may have resulted from our comment letter and we will make every effort in the future to clearly present our findings and recommendations in our review letters and enclosures to those letters.

We have responded separately to the Bureau of Radiation Control question on misadministration inspection guidance for use in revising the Bureau's Inspection Manual.

We recognize the efforts the Department has undertaken with respect to regulatory changes necessary to meet NRC's compatibility requirements. Please advise us when the current changes become effective regulations, as we are unable to make a finding of compatibility for the Texas program until these amendments have been adopted as effective regulations.

01

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PDR STPRG ESGTX
PDR

SPDI
SP-AG-27

4-16-95

David R. Smith, M.D.

2

I appreciate the courtesy and cooperation extended by your staff to Mr. Doda and the other NRC representatives during the review.

Sincerely,

Richard L. Bangart
Richard L. Bangart, Director
Office of State Programs

cc:

Dan Pearson, Executive Director
Texas Natural Resource Conservation Commission

Richard A. Ratliff, Chief
Texas Bureau of Radiation Control, TDH

Minor Hibbs, Director
Industrial and Hazardous Waste Division, TNRCC

Alice Rogers, Manager
UIC, Uranium, and Radioactive Waste Section, TNRCC

Chairman, Texas Radiation Advisory Board
Texas Bureau of Radiation Control, TDH

Andy Barrett, Governor's Office

David R. Smith, M.D.

2

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Sincerely,

Original Signed By
RICHARD L. BANGART

Richard L. Bangart, Director
Office of State Programs

cc:

Dan Pearson, Executive Director
Texas Natural Resource Conservation Commission

Richard A. Ratliff, Chief
Texas Bureau of Radiation Control, TDH

Minor Hibbs, Director
Industrial and Hazardous Waste Division, TNRCC

Alice Rogers, Manager
UIC, Uranium, and Radioactive Waste Section, TNRCC

Chairman, Texas Radiation Advisory Board
Texas Bureau of Radiation Control, TDH

Andy Barrett, Governor's Office

Distribution:

DIR RF (5S-49)
RLBanagart, SP
PLohaus, SP
CMAupin, SP
SCollins, RIV
LCallan, RIV
JGilliland, RIV
CHackney, RIV
RDoda, RIV
Texas File

DCD (SP01) PDR (YES)

DOCUMENT NAME: G:\CHM\95ACKLTR.TX2

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OFFICE	RIV:SPO	OSP	OSP:DD	OSP:DD						
NAME	RJDoda:kk	CHMaupin	PHLohaus	RLBangart						
DATE	04/5/95*	03/30/95*	04/07/95*	04/10/95						

OSP FILE CODE:

SP-AG-27

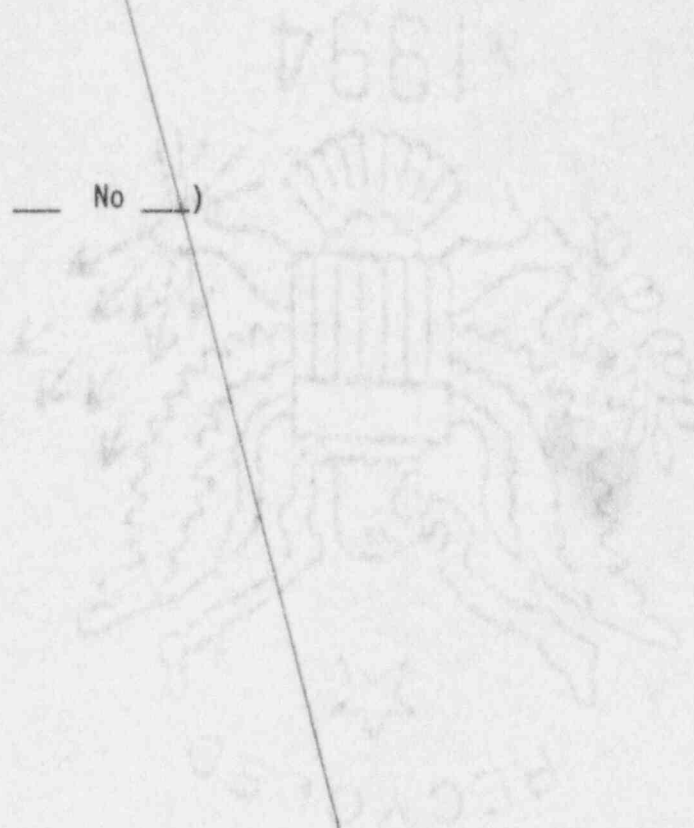
4-10-95

David R. Smith, M.D.

-3-

bcc:
RLBarnhart, SP
PLohaus, SP
CMAupin, SP
SCollins, RIV
LCallan, RIV
JGilliland, RIV
CHackney, RIV
RDoda, RIV
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DCD (SPO1)

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RIV:SPO	DRA	RA	OSP	OSP:DD	OSP:D
RJDoda/cjg	JMMontgomery	LJCallan	CMAupin	PLohaus	RLBarnhart
03/09/95	03/09/95	03/09/95	03/21/95	03/17/95	/ /95

Handwritten: A15145

OFFICIAL RECORD COPY

(FVI)

RLB2
PHL
SCD
CHM

EXECUTIVE TASK MANAGEMENT SYSTEM

<<< PRINT SCREEN UPDATE FORM >>>

TASK # - 5S-49

DATE- 02/17/95

MAIL CTRL. - 1995

TASK STARTED - 02/17/95

TASK DUE - 02/24/95

TASK COMPLETED - / /

TASK DESCRIPTION - TEXAS DOH RESPONSE TO OSP REVIEW LTR DTD 12/28/94

REQUESTING OFF. - TXDOH

REQUESTER - D. SMITH

WITS -

0

FYP - N

PROG.- RD/CHM PERSON -

STAFF LEAD - PHL

PROG. AREA -

PROJECT STATUS - DRAFT LETTER TO MANAGEMENT BY 2/24/95

FINAL LETTER 3/10/95

PLANNED ACC. - N 2/17 FAXED TO B. DODA

LEVEL CODE - 1



DCD (SPEI)
POB (YES)

RLB2
PHL
SCD
CJM

Texas Department of Health

White York
TX file

David R. Smith, M.D.
Commissioner

1100 West 49th Street
Austin, Texas 78756-3199
(512) 458-7111

MEMBERS OF THE BOARD

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Stephen L. Tatum
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Carol S. Daniels
Deputy Commissioner for Programs

Roy L. Hogan
Deputy Commissioner for Administration

February 9, 1995

Mr. Richard L. Bangart, Director
Office of State Programs
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Mr. Bangart:

We have received your letter dated December 28, 1994, that contained the results of the U.S. Nuclear Regulatory Commission's (NRC) review of the two Texas radiation control programs conducted in February and March 1994.

The responses to the specific recommendations made concerning the Texas Department of Health (TDH) are enclosed. However, there appears to be a discrepancy in the report in which NRC found that the radiation control program did not meet two of the Guidelines, Adequacy of Product Evaluations and Response to Actual and Alleged Incidents. The assessment stated that the TDH staff were performing sealed source and device evaluations in an adequate manner and that NRC found no technical inadequacies that would prevent licensing of the products. The recommendations were concerned with formatting enhancements only. Additionally, a recommendation was made that TDH update its inspection manual to address misadministration. TDH has written NRC to request misadministration follow-up guidance criteria.

If you have any questions concerning our response, please feel free to contact us.

Sincerely,

David R. Smith, M.D.
Commissioner of Health

cc: Minor Hibbs, Director, Industrial and Hazardous Waste Division, TNRCC

Enclosure

95 FEB 15 PM 12:29

OSP

45022002

RESPONSES TO NRC ASSESSMENTS AND RECOMMENDATIONS FOR THE TEXAS DEPARTMENT OF HEALTH'S RADIATION CONTROL PROGRAM

1. Status and Compatibility of Regulations

RECOMMENDATION: We recommend that the above overdue rule (concerning incident notification) and any others needed for compatibility be promulgated expeditiously as effective State radiation control regulations. In addition, we recommend that the State revise its Section 40.52 (a) and make it compatible with equivalent requirements in 10 CFR Part 31.3 and 10 CFR part 31.5.

RESPONSE: The regulations that were listed as overdue for adoption concerning notification of incidents and the manufacture of certain generally licensed devices will be presented to the Texas Board of Health in February 1995 for proposal. The rules are anticipated to be adopted in May 1995. The other regulations that are needed for a future finding of compatibility are planned for proposal this year.

2. Adequacy of Product Evaluations

RECOMMENDATION: We suggest that the program review the list of recommendations in Enclosure 2, Appendix A and consider these recommendations in the issuance of future sealed source and device registration certificates. The program should also consider implementing these recommendations in the next major amendment issued for the specific certificates that were reviewed and are identified in Enclosure 2, Appendix A.

RESPONSE: We have reviewed the list of recommendations concerning areas that may improve the utility of the sealed source and device certifications by other agencies. TDH staff have affirmed that these changes have been made and are a documented component of the device review process.

3. Responses to Incidents and Alleged Incidents

RECOMMENDATION: The State's regulations and reporting requirements were revised recently and became effective January 1, 1994. The inspection manual needs to be updated to reflect the new changes (e.g., the reporting requirements and incident notification of Texas' new Part 21 regulations).

RESPONSE: A review of the entire Inspection Manual is being conducted at this time. The incident/complaint investigation response criteria is being reviewed as part of the process. The final document will incorporate the changes required by the new Part 21 and other rule changes. The update of the manual will be completed by July 31, 1995.

COMMENT: The inspection manual refers to a 24-hour, 72-hour, and 10-day inspection requirements in response to incidents. Inspection criteria for the 24-hour and 10-day inspections are documented in the manual, but no criteria for 72-hour inspections are provided.

RESPONSE: The inspection manual in section IV, Incident and Complaint Investigations, page IV-1 states that some investigations must be initiated within 24 hours, some within 72 hours, and some within 10 days. The manual outlines the criteria for incident and complaint investigations. On page IV-6 under "B. Complaints", the manual states that "...it is the policy of the Bureau of Radiation Control to initiate response to each complaint within 72 hours of the time the complaint is received."

The policy was established because there is no way to determine how a complaint should be categorized for a timely response. We have had a complaint of radioactive peach trees that turned out to be an incident of contamination and a complaint where no licensee or individual was named that turned out to be an incident in which a sealed americium-241 source was cut open and contaminated an area used by employees as a lunch room.

COMMENT: The inspection manual does not address misadministration.

RESPONSE: This comment appears to address a perception on the part of the reviewer that the BRC should develop criteria for conducting follow-up on misadministration reports from licensees.

As far as we know there is no guidance in existence that addresses criteria for conducting follow-up on misadministration reports either through correspondence or on-site investigations. We will research available information and attempt to include misadministration in the inspection manual. This will involve contacts with NRC and other agreement states to determine their criteria for follow-up on misadministration reports.

COMMENT: One incident file revealed the following concern - a therapeutic misadministration of 675 to 750 rem to a patient's abdomen due to a dislodged source was not followed up by the TDH.

RESPONSE: Follow-up was performed prior to the NRC review, but was not completed within a short time. Since the review, an Abnormal Occurrence Report has been submitted to NRC.

(FVI)

RLB2
PHL
SCD

EXECUTIVE TASK MANAGEMENT SYSTEM

 <<< PRINT SCREEN UPDATE FORM >>>

TASK # - 5S-49	DATE- 02/17/95	MAIL CTRL. - 1995
TASK STARTED - 02/17/95	TASK DUE - 02/24/95	TASK COMPLETED - / /
TASK DESCRIPTION - TEXAS DOH RESPONSE TO OSP REVIEW LTR DTD 12/28/94		
REQUESTING OFF. - TXDOH	REQUESTER - D. SMITH	WITS - 0 FYP - N
PROG. - RD/CHM	PERSON -	STAFF LEAD - PHL
PROG. AREA -		
PROJECT STATUS - DRAFT LETTER TO MANAGEMENT BY 2/24/95		
FINAL LETTER 3/10/95		
PLANNED ACC. - N 2/17 FAXED TO B. DODA		
LEVEL CODE - 1		

Cardelia - Pls. stop by to discuss.
 I talked to Richard Raloff about
 some questions he had which he
 asked us to cover in our ~~report~~
 Acknowledgement ltr.

Thanks
 Paul
 2/17



Texas Department of Health

DCD (SPU)
POR (YES)

RLB2
PHL
SCD
CHM

White York
TX File

David R. Smith, M.D.
Commissioner

Carol S. Daniels
Deputy Commissioner for Programs

Roy L. Hogan
Deputy Commissioner for Administration

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Austin, Texas 78756-3199
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February 9, 1995

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Office of State Programs
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

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Commissioner of Health

cc: Minor Hibbs, Director, Industrial and Hazardous Waste Division, TNRCC

Enclosure

95 FEB 15 PM 12:29

OSP

9507230063

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(FYI) RLBz
PHL
SCD

EXECUTIVE TASK MANAGEMENT SYSTEM

<<< PRINT SCREEN UPDATE FORM >>>

TASK # - 5S-35

DATE- 02/07/95

MAIL CTRL. - 1995

TASK STARTED - 02/07/95

TASK DUE - / /

TASK COMPLETED - / /

TASK DESCRIPTION - TNRCC'S RESPONSE TO OSP REVIEW LETTER OF 12/28/94

REQUESTING OFF. - TX

REQUESTER - D. PEARSON

WITS - 0 FYP - N

PROG.- RD/CHM PERSON -

STAFF LEAD - PHL

PROG. AREA -

PROJECT STATUS - OSP DUE DATE:

PLANNED ACC. - N

LEVEL CODE - 1

John Hall, *Chairman*
Pam Reed, *Commissioner*
Peggy Garner, *Commissioner*
Dan Pearson, *Executive Director*



DCD (SP01)
PDR (YES)

RLB2
PHL
SCD
C#M
TX file

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

January 30, 1995

95 FEB -6 PM 2:41
OSP

Richard L. Bangart, Director
Office of State Programs
Mail Stop 3D 23
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: March, 1994, Review of Texas Natural Resource Conservation Commission's (TNRCC's) Radiation Control Program

Dear Mr. Bangart:

We have received your letter of December 28, 1994, which transmits the findings of the Nuclear Regulatory Commission's (NRC's) review of the Texas radiation control program that was conducted in March, 1994. Thank you and your staff for your extraordinary efforts in sending us this document prior to the beginning of the Texas legislative session.

Each issue raised in the "Current Review Assessments and Recommendations" section of Enclosure 2 of your letter is addressed below in the order in which it appears in the Enclosure.

1. Legal Authority (Category I)
- a. Definition of Low-Level Radioactive Waste

We recognize the inconsistencies with the definitions of Low-Level Radioactive Waste found at Sections 401.208 and 402.003(6) of the Texas Health and Safety Code. We have forwarded our proposed changes to the TNRCC's Intergovernmental Affairs Division to coordinate appropriate legislative action.

With regard to your request to make a similar change to the definitions in 30 Texas Administrative Code (TAC) Chapter 336, which adopts Section 45.1(b)(4) of the Texas Regulations for Control of Radiation, we will make such a change as soon as practicable after the statute is changed. As you know, we are currently completely redrafting the rules for the regulation

of uranium and radioactive waste disposal and hope to include this definitional change with that large rulemaking effort.

b. Definition of By-Product

We also recognize the inconsistency with the definitions of by-product found at Section 401.003(3)(B) as well as in the TNRCC rules at 30 TAC Chapter 336. We have also forwarded our proposed changes to the TNRCC's Intergovernmental Affairs Division to coordinate appropriate legislative action. Subsequent to the enactment of the new statute, we will change our rules accordingly.

2. Status and Compatibility of Regulations (Category I)

Self-Insurance as a Mechanism for Financial Assurance for Uranium Recovery Licensees

As stated above, we are currently reworking all the rules for uranium recovery and radioactive waste facilities in Texas. The requested changes to the financial assurance language will be included in this rule writing effort, which we expect to propose in the Texas Register by August, 1995. In addition, we have sent letters to all uranium recovery licensees who currently use self-insurance to alert them that self-insurance will not be accepted during the next review of their financial assurance mechanisms. A copy of this letter has been provided to Robert Doda, the NRC's state programs officer for Texas.

3. Administrative Procedures (Category II)

a. Reclamation/Restoration Cost Estimates for Uranium Recovery Facilities

In December, 1994, with assistance from the TNRCC Program Evaluation Division, we developed a specific plan with timetables for addressing all pending uranium licensing actions, including license renewals. In implementing the renewals, we will obtain, review, and approve the reclamation and restoration plans of subject projects. This process will also provide updated closure cost estimates for revising financial securities.

As part of the first TNRCC review of the uranium financial securities, which was initiated in December, 1993, and

concluded in July, 1994, the licensees have generally submitted newly prepared, updated closure cost estimates based on known closure activity requirements. The TNRCC Financial Assurance Section is currently in the process of acquiring corresponding financial instruments conforming with NRC guidelines. The TNRCC Financial Assurance Section and the UIC, Uranium, and Radioactive Waste Section have developed a written procedure for establishing financial assurance for radioactive material licenses. This document is currently being finalized.

b. Documentation of Communications Between Low-Level Radioactive Waste Disposal Authority and TNRCC

It is standard procedure to document communications between the TNRCC and applicants for all types of permits and licenses. A sample conference record between TNRCC and the Texas Low Level Radioactive Waste Disposal Authority is enclosed.

4. Staffing Level (Category II)

Since the time of the NRC's review in March, 1994, the TNRCC has filled two additional health physicist positions on the uranium team. In addition, two geologists with experience in RCRA waste management have transferred to the uranium team. These four positions will be used primarily in eliminating the uranium licensing backlog which transferred to the TNRCC with the transfer of uranium jurisdiction in September, 1993.

Furthermore, as stated above, we have quantified the uranium licensing backlog workload and have a plan in place to eliminate it within two years.

Lastly, we have also transferred an administrative position into the section to aid in database maintenance and license applications handling. All five of these positions have now been filled and we are currently training the new staff.

5. Technical Quality of Licensing Actions (Category I)

Regarding the appeal of the Texcor denial, there were actually two appeals, one by the applicant and one by the protestants. The appeal by the applicant has been dropped. The appeal by the protestants is pending, but the matter at bar is a purely

Richard L. Bangart, Director

Page 4

January 30, 1995

legal one, thus, very little technical support will be required on this appeal.

Regarding citing rules for the low-level radioactive waste disposal application, the NRC/TNRCC rules and guidance documents are performance based and not technically specific; however, we have begun citing TNRCC rules (found at 30 Texas Administrative Code Chapter 336) in our deficiency letters as appropriate.

6. Inspection Procedures (Category II)

During the past year we have been in the process of modifying the inspection manual as we perform inspections and enforcement actions. Rather than incorporate each change into the former Texas Department of Health (TDH) manual, we have produced new subunits for inclusion and revision of the original. These subunits include written inspection procedures specific to each subsite inspected and are separated into specific areas of interest such as Environmental Monitoring, Personnel Monitoring, Survey Instrumentation, etc.

We expect to complete the new inspection manual by April 15, 1995.

7. Enforcement Procedures (Category I)

As stated above, during the past year we have critically examined every facet of the inspection process to provide an accurate and effective inspection reporting format. This in-depth inspection review of the license and supporting documents proved to be necessary in order to perform inspections which are current and correct. This review covers the inspection process, inspection report review process, and enforcement process. Once these reviews have been performed, we feel confident that we will be able to process enforcement actions in a timely manner.

We have issued Notices of Violations to companies with license violations, and have scheduled a management conference with one company who appears to have a history of repeat violations based on TDH records. Additionally, we have enforcement procedures and will finalize this document by April 15, 1995. All inspection reports will be completed by March 1, 1995.

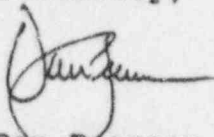
Richard L. Bangart, Director

Page 5

January 30, 1995

We appreciate the efforts of your agency in conducting such a thorough review of the TNRCC's program. Any questions you may have regarding this matter should be directed to Alice Hamilton Rogers, P.E., Manager, UIC, Uranium, and Radioactive Waste Section at 512/239-6846.

Sincerely,



Dan Pearson
Executive Director

DP/AHR/ahr

Enclosures

cc: Bob Doda, Agreement State Officer, USNRC
Kevin McLeod, TNRCC Legal Division
Susan S. Ferguson, TNRCC Waste Policy & Regulations Division
TNRCC Region 13--San Antonio
Barry J. Williams, TNRCC Deputy Director, Office of Waste
Management
Chris Macomb, TNRCC Senior Director, Solid Waste Divisions
Minor B. Hibbs, TNRCC Director, Industrial and Hazardous
Waste Division

construction/operation period, of one to two years, when the trench will be open to the environment; and for any accidental migration of water after the impervious cover has been installed.

The canisters will be supported on a working bed of pea gravel placed over the bed of gravel. Canisters are typically 9ft-0in tall. One level high in B/C waste disposal trenches and two stack high in type A radioactive waste disposal trenches. [A sketch showing cross-section of the trench was used for discussions.] A new addition of asphaltic concrete is provided in the cover for bio-intrusion (plant roots and burrowing animals) protection with a geosynthetic clay (Claymax) liner over the same. Satisfactory material includes site excavated sandy clay with some gravel. HELP analysis gave an infiltration rate below 5×10^{-6} in/yr (2.2 cm/yr, yielding 2.7 millirem/yr exposure potential).

- RA - Bio-intrusion is always a concern for us.
- BP - I recommend a layer of filter material (such as a graded aggregate - pea gravel and sand) to prevent piping of cover material into the base bed of gravel.
- JS - I have concern about compacting of the clay liner with the steep sideslopes of 1.5h:1v suggested.
- RF - The thickness of sideslope clay liner will be at least 10 ft to 12 ft at the bottom of the trench, so compacting the same will not be difficult to accomplish.
- BA - We have a concern about desiccation of clay liner on the side slopes -- still thinking about incorporating a product such as geotextile membrane.
- DB - We are also considering replacing the gravel with gravelly sand.
- JS - Will the coarse material fill between the canisters be compacted?
- DB - Not between the barrels (canisters). It will be a free flow of material.
- JS - In that case, I am concerned about settlement of the impervious cover material at the surface causing a ponding effect and/or cracking of the impervious surface soil, the geotextile membrane and the asphaltic (bio-intrusion barrier) concrete. There could possibly be some arching of the granular material resulting in settlement at a later date.

(contd...)

- BA - The truck motion will do some compaction.
- JS - Since the truck operation will be mainly above the height of the canisters, their impact on the lower layers of granular fill will be minimal or negligible.
- DB - We are planning to create a "dynamic model" of the granular material filling operation.
- BP - Sometimes it is difficult to simulate field operation conditions in the laboratory models, which are usually at a much reduced scale.
- DB - We have added a mining engineer to contribute to our team effort. His main concern is about the restricted space between the end of the trench and the beginning of the construction ramp. We will be modeling to come up with settlement values.
- BP - "Laskan granular soil" may be a suitable material for free flowing fill application.
- RF - Use of the "Laskan granular soil may prove beneficial by probably eliminating the added cost of the filter media requirement; thereby offsetting some of the cost of import for the same.
- BA - How about the possibility of filling the spaces between canisters with coarse sand and/or material from a crushing plant?
- JS - What is the kind of vegetation that is proposed at the surface over the trench covers?
- RA - Native grass.
- SE - We have concern about the asphalt, clay liner, asphaltic concrete and geotextile membrane daylighting near the surface.
- DB - We will account for that concern in our detailing of construction documents.
- RA - HELP program does not directly address the lateral flow in soils. It predicts better values on infiltration (vertical gravity flow).
- BA - I have to leave. (1:45 PM)
- DB - Our model calculations indicate an infiltration rate of 0.06 in/yr (0.15 cm/yr), or approximately 5×10^{-9} cm/sec through the impervious cover. Whereas, the bottom clay liner will have a

(contd...)

much higher infiltration rate of 10^{-7} cm/sec. Hence, theoretically there will be no collection of water in the LLRW disposal trench (since out-flow is greater than in-flow).

- BP - How about considering the possibility of using water (moisture) mixed with sand to assist compaction?
- DB - NRC's philosophy for protection of radioactive waste from contaminating the underground water is just the opposite of the RCRA's philosophy for the toxic (non-radioactive) chemical waste. The former does not permit the creation of "bath-tub" effect in the disposal trench containing the radioactive waste material, while the latter wants to contain the accidental infiltration of water without allowing it to leach into the substrate.
- RA - The design life in RCRA containment is much shorter than that required by NRC.
I talked with NRC agency about the use of synthetic liners. Their preference is not to include the same in NRC designs.
- DB - I have installed synthetic liners in RCRA Subtitle C containment liners, and they tested out very well.
- SE - They have permeability coefficients of 10^{-11} cm/sec, or so.
- BP - We will maintain the site by mowing the surface for at least 100 years, to prevent deep root penetration from vegetation.
- SE - If we do get root penetration, what will be its effect on surface water infiltration?
- RA - Our major concern is not the impact of surface infiltration caused by roots of vegetation, since that can be easily controlled; but, instead the holes created by burrowing animals. We have not considered the effect of root penetration in our design.
- BP - Mary's philosophy is to mow the site particularly the tops of trench covers at least once a year; and at different times of the year so as to kill different species of vegetation.
- DB - We are looking at providing maintenance of the drainage ditches and channels at least for the first 30 years (disposal fill operation life). After that we will provide riprap at strategic locations. Besides, if one provides riprap from the beginning, it creates hinderence during normal maintenance (cleaning) operations.
- SE - Do you plan to leave the drainage ditches and channels permanently after completion of the operation life of 30 years?

(contd...)

License File RW3100 - Faskin Ranch, Sierra Blanca
In-house meeting with TLLRWA on OCT 26, 1993
Page 5

-- Or fill them up with soil up to the current natural state?

DB - Yes, we plan to leave the drainage channel layout as-is after the operation period (of 30 years). However, we do plan to stabilize the ditches with the addition of lime (at the end of operating life).

JS - Will lime stabilization be adequate under flowing water?

RF - Our design velocities are low:- 5 ft/min (fpm) or less under PMP (Probable Maximum Precipitation), and 2 to 3 fpm under normal flow conditions.

BP - We thank you all for coming over and discussing your project developments with us.

ADJOURNED - 2:10 PM

cc: Board File / LLW Notebook / JKS



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 28, 1994

David R. Smith, M.D.
Commissioner
Texas Department of Health
1100 West 49th Street
Austin, TX 78756

Mr. Dan Pearson, Executive Director
Texas Natural Resource
Conservation Commission
P.O. Box 13087
1700 North Congress Avenue
Austin, TX 78711

Dear Dr. Smith and Mr. Pearson:

This is to transmit the results of the NRC review and evaluation of the Texas radiation control program conducted by Mr. Robert Doda, NRC Region IV State Agreements Officer and other members of the NRC staff which was concluded on March 11, 1994. The results of the review and evaluation of the Texas Natural Resource Conservation Commission (TNRCC) radiation control program were discussed with Ms. Susan Ferguson, Director, Industrial and Hazardous Waste Division, TNRCC and Ms. Alice Rogers, Manager, Underground Injection Control (UIC), Uranium, and Radioactive Waste Section, TNRCC on March 10, 1994. The results of the review and evaluation of the Texas Department of Health (TDH) radiation control program for agreement materials were discussed with Ms. Carol Daniels, Deputy Commissioner, TDH; Mr. Glen Provost, Associate Commissioner, Associateship of Environmental and Consumer Health; Mr. Richard Ratliff, Chief, Bureau of Radiation Control, TDH; and Ms. Ruth McBurney, Director, Division of Licensing, Registration, and Standards, TDH on March 11, 1994.

The authority to regulate the disposal of low-level radioactive waste was transferred to the TNRCC on March 1, 1992, and the authority to regulate uranium recovery facilities was transferred to the TNRCC on September 1, 1993. The other parts of the agreement materials program remained with the TDH. Accordingly, NRC has conducted a separate review for each agency but has made one determination as to the adequacy and compatibility of the State of Texas program for administering the Agreement under Section 274b of the Atomic Energy Act of 1954, as amended.

As a result of our review of the State's program and the routine exchange of information between the NRC and the State of Texas, the staff has determined that the Texas program for the regulation of agreement material, at this time, is adequate to protect the public health and safety. However, a finding that the Texas program is compatible with the NRC's program is being withheld because (1) the definition of low-level waste in the Texas Low-Level Radioactive Waste Disposal Authority Act (TLLRWDA) is not compatible with NRC's definition because it places limitations on radioactive materials with a half-life greater than 35 years and transuranics in concentrations greater

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than 10 nanocuries per gram; (2) the definition of byproduct material in subsection 401.003(3)(B) of the Texas statute, Radioactive Materials, Title 5 is not compatible with NRC's definition; (3) provisions in the TLLRWDA and in Texas Part 45, "Licensing Requirements for Near-Surface Land Disposal of Radioactive Waste," prohibit the disposal of transuranics in concentrations greater than 10 nanocuries per gram; (4) the regulation concerning notification of incidents which was to be adopted by October 15, 1994 has not been adopted; (5) compatibility concerns exist regarding Texas regulation 40.52, "General Licenses-Radioactive Material Other Than Source Material;" and 6) the regulation establishing a prohibition against the use of self-insurance as the surety arrangement for uranium recovery facilities has not been adopted within the three year period required by the NRC.

We recommend that the State take legislative action to change the definition of low-level waste, the definition of byproduct material in subsection 401.003(3)(B), and the prohibition on disposal of transuranics in concentrations greater than 10 nanocuries per gram to conform to NRC's provisions in these areas. If these revisions are not corrected by the time of the licensing of the low-level waste facility in Texas, NRC will consider finding the State's program incompatible with NRC's regulatory program. We also recommend that the State take measures to adopt the overdue regulation on prohibition against the use of self-insurance as soon as possible.

Please note that there has been a change made in the format of this letter from our previous review letters. This letter summarizes the findings regarding all 30 program indicators as opposed to only discussing those indicators where deficiencies were noted. Enclosure 1 contains an explanation of our policies and practices for reviewing Agreement State programs. Enclosure 2 is a summary of the review findings where recommendations are made for improvements in the radiation control program. This enclosure contains documentation on the Scope of Review, Conclusion, Status of Program Related to Previous NRC Findings, Current Review Assessments and Recommendations, and Summary Discussions with State Representatives. We request specific written responses from the State on the recommendations in Enclosure 2 within 30 days of this letter. We recognize the delay in our issuance of this letter; if you require more than 30 days to respond, please let us know.

Enclosure 3 presents a summary of the review findings where the State has adequately satisfied the indicators. A written response to the items in Enclosure 3 is not required.

This review used a team approach, which involved seven NRC staff members at various times during the review. This allowed more time for individual discussions with members of both the TDH's and the TNRC's radiation control staffs. During the course of the review, we were able to hold meetings with members of these staffs in eleven different subject areas, which were of current interest to both the State agencies and the NRC.

Dr. Smith and Mr. Pearson

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DEC 28 1994

I appreciate the courtesy and cooperation extended by your staff to Mr. Doda and the other NRC representatives during the review.

Sincerely,

Richard L. Bangart
Richard L. Bangart, Director
Office of State Programs

Enclosures:
As stated

cc w/enclosures:
Richard A. Ratliff, Chief
Texas Bureau of Radiation Control, TDH

Minor Hibbs, Director
Industrial and Hazardous Waste Division, TNRCC

Chairman, Texas Radiation Advisory Board
Texas Bureau of Radiation Control, TDH

Susan Rieff, State Liaison Officer

DEC 28 1994

I appreciate the courtesy and cooperation extended by your staff to Mr. Doda and the other NRC representatives during the review.

Sincerely,

Original Signed By
RICHARD L. BANGART

Richard L. Bangart, Director
 Office of State Programs

Enclosures:
 As stated

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 Richard A. Ratliff, Chief
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Chairman, Texas Radiation Advisory Board
 Texas Bureau of Radiation Control, TDH

Susan Rieff, State Liaison Officer

bcc w/enclosures:
 The Chairman
 Commissioner Rogers
 Commissioner de Planque

Distribution: See next page.

* See previous concurrence
 ** By phone

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OFC	NMSS:D	OGC	OSP:D	DEDS	EDO		
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Application of "Guidelines for NRC Review
of Agreement State Radiation Control Programs"

The "Guidelines for NRC Review of Agreement State Radiation Control Programs" were published in the Federal Register on May 28, 1992, as an NRC Policy Statement. The Guidelines provide 30 indicators for evaluating Agreement State program areas. Guidance as to their relative importance to an Agreement State program is provided by categorizing the indicators into two categories.

Category I indicators address program functions which directly relate to the State's ability to protect the public health and safety. If significant problems exist in several Category I indicator areas, then the need for improvements may be critical.

Category II indicators address program functions which provide essential technical and administrative support for the primary program functions. Good performance in meeting the guidelines for these indicators is essential in order to avoid the development of problems in one or more of the principal program areas, i.e., those that fall under Category I indicators. Category II indicators frequently can be used to identify underlying problems that are causing, or contributing to, difficulties in Category I indicators.

It is the NRC's intention to use these categories in the following manner. In reporting findings to State management, the NRC will indicate the category of each comment made. If no significant Category I comments are provided, this will indicate that the program is adequate to protect the public health and safety and is compatible with the NRC's program. If one or more significant Category I comments are provided, the State will be notified that the program deficiencies may seriously affect the State's ability to protect the public health and safety and that the need for improvement in a particular program area(s) is critical. If, following receipt and evaluation, the State's response appears satisfactory in addressing the significant Category I comments, the staff may offer findings of adequacy and compatibility as appropriate or defer such offering until the State's actions are examined and their effectiveness confirmed in a subsequent review. If additional information is needed to evaluate the State's actions, the staff may request the information through follow-up correspondence or perform a follow-up or special, limited review. NRC staff may hold a special meeting with appropriate State representatives. No significant items will be left unresolved over a prolonged period. The Commission will be informed of the results of the reviews of the individual Agreement State programs and copies of the review correspondence to the States will be placed in the NRC Public Document Room. If the State program does not improve or if additional significant Category I deficiencies have developed, a staff finding that the program is not adequate will be considered and the NRC may institute proceedings to suspend or revoke all or part of the Agreement in accordance with Section 274j of the Act, as amended.

ENCLOSURE 1

SUMMARY OF ASSESSMENTS AND RECOMMENDATIONS
FOR THE TEXAS RADIATION CONTROL PROGRAM
MARCH 27, 1992 TO MARCH 11, 1994

SCOPE OF REVIEW

The 28th Regulatory Program Review was held with the Texas radiation control program (Texas Department of Health (TDH) representatives during the period February 14-18, 1994 and Texas Natural Resource Conservation Commission (TNRCC) representatives during the period March 7-11, 1994) in Austin, Texas. This program review was conducted in accordance with the Commission's Policy Statement for reviewing Agreement State Programs published in the Federal Register on May 28, 1992, and internal procedures established by the Office of State Programs. The State's program was reviewed against 30 program indicators provided in the policy statement. The review included inspector accompaniments, discussions with program management and staff, technical evaluation of selected license and compliance files, and the evaluation of the State's responses to an NRC questionnaire that was sent to the State in preparation for the review.

The TDH was represented by Mr. Richard Ratliff, Chief, Bureau of Radiation Control, TDH; Ms. Ruth McBurney, Director, Division of Licensing, Registration, and Standards, TDH; and staff of the Bureau of Radiation Control. The TNRCC was represented by Ms. Susan S. Ferguson, Director, Industrial and Hazardous Waste Division; Ms. Alice Rogers, Manager, Underground Injection Control (UIC), Uranium, and Radioactive Waste Section; and staff of the Industrial and Hazardous Waste Division.

The NRC was represented by Mr. Robert J. Doda, State Agreements Officer, Region IV; Mr. Jack Whitten, Senior Health Physicist, Region IV; Mr. Steven Baggett, Section Leader, Sealed Source Safety Section, Office of Nuclear Material Safety and Safeguards (NMSS), Mr. Thomas Rich, Mechanical Engineer, NMSS; Mr. Richard Turtill, Project Manager, NMSS; Mr. Dennis Sollenberger, Senior Health Physicist, Office of State Programs; and Mr. Robert Prato, Project Manager, Office of Analysis and Evaluation of Operational Data (AEOD).

Summary meetings regarding the results of the regulatory program review were held with Ms. Susan Ferguson, Director, Industrial and Hazardous Waste Division, TNRCC, on March 10, 1994, and with Ms. Carol Daniels, Deputy Commissioner, TDH, on March 11, 1994, in Austin, Texas. Mr. L. J. Callan, Regional Administrator, NRC Region IV, also participated in both meetings.

CONCLUSION

As a result of our review of the State's program and the routine exchange of information between the NRC and the State of Texas, the staff determined that the Texas program for the regulation of agreement materials, at this time, is adequate to protect public health and safety. However, a finding that the Texas program is compatible with the NRC's program is being withheld because 1) the definition of low-level waste in the Texas Low-Level Radioactive Waste Disposal Authority Act (TLLRWDA) is not compatible with NRC's definition because it places limitations on radioactive materials with a half-life

ENCLOSURE 2

greater than 35 years and transuranics in concentrations greater than 10 nanocuries per gram; 2) the definition of byproduct material in subsection 401.003(3)(B) of the Texas statute, Radioactive Materials, Title 5 is not compatible with NRC's definition; 3) provisions in the TLLRWDA and in Texas Part 45, "Licensing Requirements for Near-Surface Land Disposal of Radioactive Waste," prohibit the disposal of transuranics in concentrations greater than 10 nanocuries per gram; 4) the regulation concerning notification of incidents which was to be adopted by October 15, 1994 has not been adopted; 5) compatibility concerns exist regarding Texas regulation 40.52, "General Licenses-Radioactive Material Other Than Source Material;" and 6) the regulation establishing a prohibition against the use of self-insurance as the surety arrangement for uranium recovery facilities has not been adopted within the three year period required by the NRC.

STATUS OF PROGRAM RELATED TO PREVIOUS NRC FINDINGS

The previous NRC routine review was concluded on March 27, 1992, and comments and recommendations were sent to the State by letter dated June 16, 1992. At that time, the program was found to be adequate to protect the public health and safety and compatibility was withheld because the State had not adopted the decommissioning rule within the three years required by the NRC. A finding of compatibility with the NRC's program for the regulation of similar materials was established on September 1, 1993, when these amendments were adopted. The current status of the comments and recommendations from the previous program review and the State's responses to them are discussed below.

1. Status and Compatibility of Regulations (Category I)

For the purposes of the following recommendation, this item has not been satisfactorily resolved and remains open.

Recommendation from the March 1992 Routine Review

We recommend that the proposed amendment to the Texas regulations on decommissioning be adopted as soon as possible, and that other regulations needed for compatibility also be promulgated as effective State radiation control regulations within the three year period allowed by NRC policy criteria.

Current Status

On September 1, 1993, the State adopted the decommissioning amendment. However, additional compatibility concerns have been raised during this review. Please see the discussions on "Legal Authority" and "Status and Compatibility of Regulations" under current review assessments and recommendations.

2. Legal Assistance (Category II)

For the purposes of the following recommendation, this item has been satisfactorily resolved and is closed.

Recommendation from the March 1992 Routine Review

We recommend that the TDH and the Texas Water Commission (TWC) monitor the need for legal staff in the agencies for escalated enforcement actions, regulations development, and other statutory requirements and arrange for the continuing availability of a knowledgeable legal staff for all radiation control matters.

Current Status

Both TDH and TNRCC¹ have assigned knowledgeable legal staff to assist with legal efforts in each respective radiation control program.

3. Status of Inspection Program (Category I)

For the purposes of the following recommendation, this item has been satisfactorily resolved and is closed.

Recommendation from the March 1992 Routine Review

Thirty-six priority 1 and 2 inspections are overdue for inspection. We recommend that Bureau management eliminate the inspection backlog.

Current Status

TDH is essentially up-to-date for their significant licensee inspections, as only four inspections were overdue by more than 50 percent of the inspection interval. Out of approximately 625 licensees in the priority 1 and 2 inspection categories, there were only three overdue by 7 months each and one was overdue by 16 months. At the time of the review, the reviewer noted that the overdue inspections had been scheduled for inspection.

4. Administrative Procedures (Category II)

For the purposes of the following recommendation, recommendation A and B have not been satisfactorily resolved and remain open. Recommendation C has been resolved and is closed.

A. Recommendation from the March 1992 Routine Review

We recommend as part of the annual surety review process and wherever possible, that the State direct the licensees with "performance bonds" to propose an alternative surety arrangement in an acceptable form.

¹Please note that in the 1992 recommendation, we referred to the TWC. However, since the 1992 review the Texas State agencies were reorganized and the functions of the TWC were placed under the TNRCC. Thus, TNRCC will be referred to as opposed to TWC in this report.

Current Status

The TNRCC is proceeding to update the performance bonds upon receipt of the cost estimates from the Radioactive Waste Section. The TNRCC has not sought alternative surety arrangements with this group of licensees. This item remains open until the TNRCC has adopted the regulation concerning a ban on self-insurance and has implemented this regulation. See current status of next recommendation.

B. Recommendation from the 1992 Routine Review

We recommend that wherever possible, the license renewal process be utilized to update both the reclamation/restoration plans and the associated cost estimates.

Current Status

Before the transfer of the uranium regulatory authority to TNRCC, TDH sent letters to all uranium recovery licensees requesting cost estimate updates from their facilities. Responses are being reviewed and updated. The cost estimates will be sent to the Financial Assurance Section in TNRCC. Work on updating reclamation plans was delayed due to the transfer of authority to TNRCC; however, the plans are currently being worked on in TNRCC. For further discussion, please see item "a" under the Administrative Procedures assessment under TNRCC in this Enclosure.

C. Recommendation from the 1992 Routine Review

We recommend that the annual surety review process be utilized to require that waste disposal costs be updated to reflect actual disposal costs at an available licensed facility.

Current Status

This recommendation has been implemented by the TNRCC and actual disposal costs for uranium recovery facilities are being used in the reviews. This item is closed.

CURRENT REVIEW ASSESSMENTS AND RECOMMENDATIONS FOR THE TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RADIATION CONTROL PROGRAM (TNRCC)

The TNRCC radiation control program (RCP) satisfies the Guidelines in 23 of the 30 indicators. The program did not fully satisfy the Guidelines in four Category I indicators, and in three Category II indicators. The seven indicators are discussed below. The remaining indicators are discussed in Enclosure 3. A questionnaire containing the 30 indicators with specific questions addressing each indicator was sent to the State prior to the review. The assessments and recommendations below are based upon the evaluation of the State's written response to the questionnaire, comparison with previous review information, discussions with the program managers and staff members, review team observations, review of the State's policies and procedures, licensing and inspection casework file reviews, and inspector accompaniments.

1. Legal Authority (Category I)

NRC Guidelines

Clear statutory authority should exist, designating a State radiation control agency and providing for promulgation of regulations, licensing, inspection and enforcement.

States regulating uranium or thorium recovery and associated wastes pursuant to the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) must have statutes enacted to establish clear authority for the State to carry out the requirements of UMTRCA.

States regulating the disposal of low-level radioactive waste in permanent disposal facilities must have statutes that provide authority for the issuance of regulations for low-level waste management and disposal. The statutes should also provide regulatory program authority and provide for a system of checks to demonstrate that conflicts of interest between the regulatory function and the developmental and operational functions shall not occur. (The level of separation [e.g., separate agencies] should be determined for each State individually.)

a. Assessment

During previous routine reviews, compatibility concerns had been raised regarding Texas statutory authority relating to the regulation of byproduct materials and the corresponding regulations implementing this authority. These previous compatibility concerns were assessed during the March 1994 review and were discussed with Texas management. This assessment disclosed that Texas statutes and regulations continue to have provisions which are of compatibility concern.

The TLLRWAA defines low-level waste as:

"Low-level waste" means any radioactive material that has a half-life of 35 years or less or that has less than 10 nanocuries per gram of transuranics and may include radioactive material not excluded by this subdivision with a half-life of more than 35 years if special criteria are established by the agency for disposal of that waste. The term does not include irradiated reactor fuel and high-level radioactive waste as defined by Title 10, Code of Federal Regulations."

Whereas, the Low-Level Waste Policy Amendments Act defines low-level waste as:

"Low-level radioactive waste means radioactive waste that--(A) is not high-level radioactive waste, spent nuclear fuel, or byproduct material (as defined in section 11e(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2))); and (B) the Nuclear Regulatory Commission, consistent with existing law and in accordance with paragraph (A), classifies as low-level waste."

In addition, Section 45.1(b)(4) of the Texas Regulations for Control of Radiation (TRCR) Part 45, "Licensing Requirements for Near-Surface Disposal of Radioactive Waste," limits the disposal of transuranics to concentrations less than 10 nanocuries per gram. Section 45.1(b)(4) of TRCR Part 45 states the following:

"(b) The rules in this part do not apply to:

(4) disposal of radioactive waste containing transuranic radioisotopes in concentrations exceeding 10 nanocuries per gram."

The NRC regulations in 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," Section 61.55, "Waste Classification," limits the disposal of alpha emitting transuranics with a half-life greater than five years to 100 nanocuries per gram. The provisions of the Texas law and regulations cited are not compatible with the LLRWPA provisions and those of the NRC because an orphan waste category would be created for radioactive waste greater than 10 nanocuries and less than or equal to 100 nanocuries per gram. For LLRW as defined by Section 61.55 of Title 10 CFR, States have disposal responsibility pursuant to the Low-Level Radioactive Waste Policy Amendments Act of 1985 (LLRWPA). The Texas provisions have the potential of creating a situation in which there is no agency, either State or federal, which under law is required to accept responsibility for disposal of the radioactive waste being excluded by these two provisions. Thus, there is the establishment of an "orphan waste" category.

a. Recommendation

We recommend that the State take legislative action to change the definition of low-level waste and the limitations on the disposal of transuranic concentrations greater than 10 nanocuries per gram to conform to the LLRWPA and NRC's provisions in these areas. If these revisions are not corrected by the time of the licensing of the low-level waste facility in Texas, we will consider finding the Texas program incompatible with that of the NRC.

b. Assessment

The Texas statute (Section 401, Radioactive Materials, Title 5) subsection 401.003(3)(B) defines byproduct material (AEA definition 11e(2)) in the same manner as 10 CFR Part 40 with the exception of the additional phrase, "and other tailings having similar radiological characteristics." This definition was repeated in the Texas Health Department rules in Parts 11 and 43. These rules have been included by reference in the TNRCC rules. The Office of State Programs, Internal Procedure B.7, "Criteria for Compatibility Determinations," provides that States should adopt definitions in a manner that is essentially verbatim to those of the NRC. The Texas expanded definition raises the following concerns:

- (1) The regulations for byproduct material consider the radiological and nonradiological hazards associated with the material. The expanded definition only considers the radiological properties of the other

tailings material. This definition could allow the introduction of material that could be classified as mixed waste.

- (2) Material disposed of under the expanded definition may jeopardize the transfer of an 11e(2) disposal site to the Department of Energy (DOE), since prior approval by DOE has not been established.
- (3) The definition is not compatible with NRC's definition of byproduct material as defined in 10 CFR Part 40 and in the Atomic Energy Act 11e(2) definition.

b. Recommendation

We recommend that the State change the statutory definition of byproduct material in subsection 401.003(3)(B), the definition of this term in Parts 11 and 43 of the Texas Department of Health rules, and any other Parts of Texas' rules which may be appropriate to make this term compatible with the NRC definition in 10 CFR Part 40. These revisions should remove the phrase, "and other tailings having similar radiological characteristics," from the definition of byproduct material.

2. Status and Compatibility of Regulations (Category I)

NRC Guidelines

The State should adopt regulations to maintain a high degree of uniformity with NRC regulations. For those regulations deemed a matter of compatibility by NRC, State regulations should be amended as soon as practicable, but no later than 3 years after the effective date.

Assessment

The State was provided a chronology of amendments that are needed for compatibility for comparison with the Texas regulations that have been adopted. This chronology was compared with the State's regulations, and the amendments that were adopted by the State since the last review.

During the review meeting of March 7-11, 1994, the reviewers found that TNRCC had not adopted one regulation within the three years required by the NRC. This regulation concerns the unacceptability of self-insurance as a surety arrangement for uranium recovery licensees (10 CFR Part 40, appendix A, Criterion 9), which became effective on November 17, 1980. The following language is missing language from the State's regulation:

"However, self-insurance or any arrangement which essentially constitutes self-insurance (e.g., a contract with a State or Federal agency), will not satisfy the surety requirement since this provides no additional assurance other than that which already exists through license requirements."

Recommendation

We recommend that this amendment be promulgated as an effective regulation as soon as possible.

3. Administrative Procedures (Category II)

NRC Guidelines

The RCP should establish written internal procedures to assure that the staff performs its duties as required and to provide a high degree of uniformity and continuity in regulatory practices. These procedures should address internal processing of license applications, inspection policies, decommissioning and license termination, fee collection, contacts with communication media, conflict of interest policies for employees, exchange of information and other functions required of the program. Administrative procedures are in addition to the technical procedures utilized in licensing, inspection, and enforcement.

a. Assessment (Repeat)

The majority of reclamation/restoration cost estimates for uranium recovery facilities are based on outdated plans which contain insufficient detail and may not meet current site closure criteria. In some cases, license renewals have occurred without updating the reclamation plans or cost estimates. We note that the TNRCC staff has sought changes in reclamation plans and the associated cost estimates. Licensees can be required to update reclamation/restoration plans and cost estimates prior to renewal of a license. The TNRCC has not addressed this area since the authority to regulate uranium recovery facilities was transferred to the TNRCC on September 1, 1993 because of other competing higher priority issues associated with the assumption of the authority and program development.

Recommendation

We recommend that the license renewal process be utilized to update both the reclamation/restoration plans and the associated cost estimates.

b. Assessment

While reviewing the submitted LLRW disposal license application for completeness, and in developing the analysis of potential environmental and safety aspects of the proposed site and operation, the reviewers found that staff communication with the Texas LLRW Disposal Authority does not always become part of a documented record. Examples include oral requests for additional information needed to further support staff review and requests by the staff for changes to the facility design.

Recommendation

We recommend that TNRCC establish a written internal policy and administrative procedures to assure that all substantive staff requests to the Authority for additional information, and all staff requests and statements that may alter information currently provided in the license application, become part of a written documented record. Authority responses to these requests and statements should also become part of this record.

4. Staffing Level (Category II)

NRC Guidelines

For States regulating uranium mills and mill tailings current indications are that 2-2.75 professional person-years of effort, including consultants, are needed to process a new mill license (including in situ mills) or major renewal, to meet requirements of the Uranium Mill Tailings Radiation Control Act of 1978.

States which regulate the disposal of low-level radioactive waste in permanent disposal facilities should allow a baseline RCP staff effort of 3-4 professional technical person-years. However, in some cases, the level of site activity may be such that a lower level is adequate, particularly if contractor support is on call. In any event, staff resources should be adequate to conduct inspections on a routine basis during operations of the LLW facility, including inspection of incoming shipments and licensee site activities and to respond to emergencies associated with the site. During periods of peak activity additional staff or specialty consultants should be available on a timely basis.

Assessments

A review of the TNRCC staffing level and discussions with TNRCC staff and management indicated that TNRCC has prioritized staffing assignments to emphasize program requirements in the LLRW disposal area (application received December 31, 1993), and in the uranium mill inspection area (no overdue inspections). The staffing level for LLRW waste disposal licensing activities is adequate at this time. The LLRW staffing level is currently staffed at seven professional technical person-years which is an acceptable staffing level under NRC guidelines. The TNRCC also has other technical staff in other Divisions that can be called on for assistance. Contract support is available, if needed, for the license review process. Only one contractor has been identified thus far, for socioeconomic impacts.

In addition, the review revealed that the current assigned staffing level for the uranium mill program is estimated at 2.75 person-years. With the backlog of licensing actions, this staffing level is not adequate to meet the current workload. The TNRCC inherited a significant backlog of uranium mill licensing work from the TDH, but did not receive an adequate number of experienced staff from the TDH. The backlog of licensing cases was building up in the Texas Department of Health prior to the program being transferred to the TNRCC on September 1, 1993, and has continued to build up since that time.

Furthermore, support tasks (in particular rule writing and preparation of reports) had been handled in the TDH by other support staff; at the TNRCC, the technical staff are responsible for these tasks in addition to the program tasks. The TNRCC recognizes the need and is actively recruiting two new uranium licensing positions.

During the routine review, NRC staff held discussions with TNRCC staff and reviewed a TNRCC printout of the uranium mill program licensing actions. From the information gathered, it was noted that there was a licensing backlog of nine license renewals, one new license application, and 31 amendment requests and it was determined that the resource commitment for the uranium mill licensing program was not adequate to meet this backlog of licensing actions according to NRC criteria. During these discussions, NRC reviewers were informed by TNRCC staff that two new positions were being posted to specifically address this licensing backlog.

Recommendation

We recommend that the TNRCC fill the two new technical staff positions, as soon as practical, to assist in reducing the backlog in overdue licensing actions for uranium recovery licensees. Due to the extensive backlog, we concur with staff plans to prioritize the licensing actions so that staff resources can be appropriately applied. We believe that these current plans will help to improve existing problems in this area.

5. Technical Quality of Licensing Actions (Category I)

NRC Guidelines

The RCP should assure that essential elements of applications have been submitted to the agency, and that they meet current regulatory guidance for describing the isotopes and quantities to be used, qualifications of persons who will use material, facilities and equipment, and operating and emergency procedures sufficient to establish the basis for licensing actions.

Additionally, in States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, the RCP should assure that essential elements of waste disposal applications meet State licensing requirements for waste product and volume, qualifications of personnel, facilities and equipment, operating and emergency procedures, financial qualifications and assurances, closure and decommissioning procedures and institutional arrangements in a manner sufficient to establish a basis for licensing action. Licensing activities should be adequately documented including safety evaluation reports, product certifications or similar documentation of the license review and approval process. Prelicensing visits should be made for complex and major licensing actions. Licenses should be clear, complete, and accurate as to isotopes, forms, quantities, authorized uses, and permissive or restrictive conditions. The RCP should have procedures for reviewing licenses prior to renewal to assure that supporting information in the file reflects the current scope of the licensed program.

Assessment

Two uranium mill licensing actions were examined in some detail during the review meeting: (1) the Texcor denial, and (2) the Conoco reclamation schedule amendment. The Texcor denial has been appealed and additional effort will be needed to address the appeal. The file for the Conoco amendment was complete and contained all the supporting documentation for the amendment. Both licensing actions were deemed to be of acceptable quality.

Licensing activities involving the low-level waste disposal facility were also examined. TNRCC staff, on occasion, are recommending to the Texas LLRW Disposal Authority changes concerning the license, the proposed facility, and operations. As a regulatory body, the TNRCC should use deficiency letters to document recommended changes and in communicating these changes to the Authority concerning design, construction, and operation of the facility, during the licensing review process. Although early in the review process, the TNRCC was not focusing on citing criteria and standards in the regulations as the reason for requesting changes or information from the Authority.

Recommendation

We recommend that the staff consider identifying the regulatory bases for requests to the Authority for information and clarification by citing criteria and standards in the regulations. Letters of deficiency and other correspondence may be used to identify specific objectives or sections within the regulations that will not be adequately met based on current information or proposed design and operations.

6. Inspection Procedures (Category II)

NRC Guidelines

Inspection guides consistent with current NRC guidance, should be used by inspectors to assure uniform and complete inspection practices and provide technical guidance in the inspection of licensed programs. NRC Guides may be used if properly supplemented by policy memoranda, agency interpretations, etc. Written inspection policies should be issued to establish a policy for conducting unannounced inspections, obtaining corrective action, following up and closing out previous violations, interviewing workers and observing operations, assuring exit interviews with management, and issuing appropriate notification of violations of health and safety problems. Procedures should be established for maintaining licensees' compliance histories. Oral briefing of supervision or the senior inspector should be performed upon return from nonroutine inspections. For States with separate licensing and inspection staffs, procedures should be established for feedback of information to license reviewers.

Assessment

A review of the TNRCC inspection procedures and discussions with staff indicate that TNRCC utilizes an Inspection Manual, with all the inspection procedures, that had been developed by the TDH. Some of the procedures in

this manual do not apply to the inspection of facilities which TNRCC has the responsibility of regulating, i.e., U-mill facilities and low-level waste facilities.

Recommendation

We recommend that the TNRCC staff update the Inspection Manual for the specific activities that are performed by TNRCC staff and delete the sections of the manual that are not applicable to TNRCC responsibilities.

7. Enforcement Procedures (Category I)

NRC Guidelines

Enforcement Procedures should be sufficient to provide a substantial deterrent to licensee noncompliance with regulatory requirements. Provisions for the levying of monetary penalties are recommended. Enforcement letters should be issued within 30 days following inspections and should employ appropriate regulatory language clearly specifying all items of noncompliance and health and safety matters identified during the inspection and referencing the appropriate regulation or license condition being violated. Enforcement letters should specify the time period for the licensee to respond indicating corrective actions and actions taken to prevent recurrence (normally 20-30 days). The inspector and compliance supervisor should review licensee responses.

Licensee responses to enforcement letters should be promptly acknowledged as to adequacy and resolution of previously unresolved items. Written procedures should exist for handling escalated enforcement cases of varying degrees. Impounding of material should be in accordance with State administrative procedures. Opportunity for hearings should be provided to assure impartial administration of the radiation control program.

Assessments

A review of TNRCC enforcement activities indicated that for at least seven completed uranium inspections, the enforcement letters from these inspections had not been completed. Based upon the status of these letters at the time of the review, these letters would be going out several months after the inspection. NRC guidelines indicate that enforcement letters should be issued within 30 days following inspections.

The reason for the delay is that TNRCC is developing management systems for its new responsibilities in the uranium area and is developing compliance histories on the uranium licensees transferred to them from TDH. This gathering of historical inspection information for its initial in-depth inspections of these licensees has required additional time and effort. These factors have contributed to the additional time expended in the completion of enforcement letters.

Recommendation

TNRCC should revise its handling of enforcement actions to assure a more expeditious transmittal of enforcement letters to licensees.

CURRENT REVIEW ASSESSMENTS AND RECOMMENDATIONS FOR THE TEXAS DEPARTMENT OF HEALTH'S RADIATION CONTROL PROGRAM

The TDH radiation control program (RCP) satisfies the Guidelines in 28 of the 30 indicators. At the time of the review, the program did not meet the Guidelines in two Category I indicators, Adequacy of Product Evaluations and Response to Actual and Alleged Incidents; however, since the review, a compatibility regulation has become overdue. Thus, a recommendation is also provided in the area of Status and Compatibility of Regulations, Category I indicator. These three indicators are discussed below. The remaining indicators are discussed in Enclosure 3. A questionnaire containing the 30 indicators with specific questions addressing each indicator was sent to the State prior to the review. The assessments and recommendations below are based upon the evaluation of the State's written response to the questionnaire, comparison with previous review information, discussions with the Program managers and staff members, review team observations, review of the State's policies and procedures, licensing and inspection casework file reviews, and inspector accompaniments. Specific assessments and recommendations are as follows:

1. Status and Compatibility of Regulations (Category I)

NRC Guidelines

The State should adopt regulations to maintain a high degree of uniformity with NRC regulations. For those regulations deemed a matter of compatibility by NRC, State regulations should be amended as soon as practicable, but no later than 3 years after the effective date.

Assessment

The State was provided a chronology of amendments that are needed for compatibility for comparison with the Texas regulations that have been adopted. This chronology was compared with the State's regulations, and the amendments that were adopted by the State since the last review. At the time of the review, this comparison revealed that all regulations currently needed for compatibility had been adopted by TDH. However, since the routine review was conducted, two additional compatibility concerns have been identified.

- A. A regulation has become overdue for adoption; this regulation is:
"Notification of Incidents," 10 CFR Parts 20, 30, 31, 34, 39, 40, and 70 amendments (56 FR 40757) that became effective on October 15, 1991, and was to be adopted by October 15, 1994.
- B. Texas Regulation 40.52 General Licenses-Radioactive Material Other Than Source Material

Texas regulation 40.52 (a) states,

"A general license is hereby issued to transfer, receive, acquire, possess and use radioactive material incorporated in the following devices or equipment that have been manufactured, tested, and labeled by the manufacturer in accordance with a specific license issued to the manufacturer by the Commission authorizing distribution under this general license or its equivalent."

Texas regulation 40.52 (a) is the State's equivalent of 10 CFR Part 31.3, which is a Division I matter of compatibility and must be adopted essentially verbatim by the Agreement States. The Texas equivalent of 10 CFR Part 31.3 lists static elimination devices, ion generating tubes, and a third category which includes devices designed for producing light or an ionized atmosphere as the devices to which it is applicable. The Texas equivalent of 10 CFR Part 31.3 with the inclusion of this third category is not consistent with NRC's regulation. 10 CFR Part 31.3 only includes static elimination devices and ion generating tubes as the devices to which it is applicable and which must be manufactured in accordance with a license issue by the NRC. The inclusion of this third category under paragraph 40.52 (a) provides that devices designed and manufactured for the purpose of producing light or an ionized atmosphere (e.g. exit signs, gas chromatographs), can only be distributed in Texas by a manufacturer licensed by the Commission. The NRC (10 CFR Part 31.5 (b)) and other Agreement State regulations provide that these devices can be manufactured and distributed under a specific license issued by either the Commission or an Agreement State. Thus, the Texas 40.52 (a) regulation is not compatible with 10 CFR Part 31.3 and 10 CFR Part 31.5.

As a matter separate from this review, we would like to bring to TDH's attention regulations that will be needed for a finding of compatibility in the future. These rules are:

- "Quality Management Program and Misadministrations", 10 CFR Part 35 amendment (56 FR 34104) that became effective on January 27, 1992, which will need to be adopted by January 27, 1995.
- "Licenses and Radiation Safety Requirements for Irradiators," 10 CFR Part 36 (58 FR 7715), which will need to be adopted by July 1, 1996.
- "Decommissioning Recordkeeping and License Termination: Documentation Additions," 10 CFR Parts 30, 40, and 70 (58 FR 39628), which will need to be adopted by October 25, 1996.

Recommendation

We recommend that the above overdue rule and any others needed for compatibility be promulgated expeditiously as effective State radiation control regulations. In addition, we recommend that the State revise its Section 40.52 (a) and make it compatible with equivalent requirements in 10 CFR Part 31.3 and 10 CFR Part 31.5.

2. Adequacy of Product Evaluations (Category I)

NRC Guidelines

RCP evaluations of manufacturer's or distributor's data on sealed sources and devices outlined in NRC, State, or appropriate ANSI Guides, should be sufficient to assure integrity and safety for users. The RCP should review manufacturer's information on labels and brochures relating to radiation health and safety, assay, and calibration procedures for accuracy. Approval documents for sealed source or device designs should be clear, complete and accurate as to isotopes, forms, quantities, uses, drawing identifications, and permissive or restrictive conditions.

Assessment

The primary purpose of the product evaluations review was to determine whether the TDH administrative procedures, rules and staffing were adequate for sealed source and device (SS&D) product evaluations and issuance of SS&D registration certificates. During our review, we did not find any areas that could be classified as significant problems with Category I indicators, and found the staff of the TDH performing SS&D evaluations in an adequate manner.

We reviewed registration certificates issued in the last two years for technical quality, accuracy and consistency of the following areas: format, description, labeling, diagram, conditions of use, prototype testing, radiation levels, quality assurance and quality control, limitations of use and the basis for determining that the source or device design(s) was deemed acceptable for licensing purposes. We reviewed TDH procedures for assurance that the results of the evaluations are consistent and that second independent reviews and concurrences are performed.

The review included the examination of 16 registration certificates issued to seven different vendors. These registration certificates approved products for licensing purposes and ranged from electron capture detectors containing millicurie quantities of nickel-63 having a minimal health and safety risk to a one curie cesium-137 gamma gauge. Because many of the registration certificates during the past two years were minor amendments, we reviewed the background information and the original documentation the staff used to make the determination that the product(s) was adequate for licensing purposes.

During the scope of our review of SS&D certificates, we did not discover any technical inadequacies that would prevent licensing of these products. However, we identified certain areas that we feel would enhance the utility of the registration certificates and improve their use by other regulatory bodies. Most of the information needed for the suggested improvements can be found in the background files maintained by the TDH. Adding this additional information to the certificates will assist other regulatory agencies in the licensing and inspection of these devices.

Recommendation

We suggest that the program review the list of recommendations in Enclosure 2, Appendix A and consider these recommendations in the issuance of future sealed source and device registration certificates. The program should also consider implementing these recommendations in the next major amendment issued for the specific certificates that were reviewed and are identified in Enclosure 2, Appendix A.

3. Responses to Incidents and Alleged Incidents (Category I)

NRC Guidelines

Inquiries should be promptly made to evaluate the need for on-site investigations. Investigation (or inspection) results should be documented and enforcement action taken when appropriate. State licensees and the NRC should be notified of pertinent information about any incident which could be relevant to other licensed operations.

Assessment

Texas, for many years, has summarized incidents and complaints in a quarterly report. Most of the allegations received by the Bureau would be addressed in the complaint section of the quarterly report. In some cases, a complaint may be initiated that later becomes an incident due to the determination of an actual overexposure or some actual radiological consequences.

The main area of review included incident reports, investigations, and to a lesser extent, "complaints." The following documentation was reviewed:

- (1) incident log,
- (2) complaint log,
- (3) State of Texas regulation and reporting requirements,
- (4) incident response procedures, and
- (5) 21 incident files from 1993.

The 21 incident files were selected from 262 event summaries contained in quarterly "Incident Summary" reports for 1993. A cross-section of the more significant misadministration events, overexposure events, radiography source disconnect events, an unauthorized disposal of radioactive material event, and a leaking source event were reviewed. Excluded from this review were some of the more significant events that have been previously reported to, and reviewed by the NRC, for consideration as abnormal occurrence reports. The findings were as follows:

- A review and evaluation of the incident and complaint logs showed they contained 262 incidents and 100 complaints for 1993. The 262 incidents were made up of 111 overexposures, 35 misadministrations, and 116 other events. The average incident review time was approximately 51 days from the date of notification to the date the files were closed. Discussions with TDH staff indicated that many of the incident reviews are completed

in a much shorter period of time but the file is kept active until all documentation is received.

A similar review of 1992 and 1991 log data revealed a similar level of performance for previous years, as shown in the table below:

YEAR	TOTAL EVENTS	AVE CLOSE-OUT TIME	OVER-EXPOSURE	MISADM.	OTHER EVENTS	COMPLTS
1993	262	51 DAYS	111*	35	116	100
1992	261	43 DAYS	128*	29	104	90
1991	266	55 DAYS	130*	34	102	93

* Overexposure events include approximately 60-68% x-ray events; e.g., fluoroscopy examinations, and events where a dosimeter, only, and not the radiation worker was exposed.

- The State's regulations and reporting requirements were revised recently and became effective January 1, 1994. The inspection manual needs to be updated to reflect the new changes (e.g., the reporting requirements and incident notifications of Texas' new Part 21 regulations).
- The inspection manual refers to a 24-hour, 72-hour, and 10-day inspection requirements in response to incidents. Inspection criteria for the 24-hour and 10-day inspections are documented in the manual but no criteria for 72-hour inspections are provided.
- The inspection manual does not address misadministrations.
- One incident file (I-6515) revealed the following concern:

A therapeutic misadministration of 675 to 750 rem to a patient's abdomen due to a dislodged source was not followed-up by the TDH.

Recommendation

All procedures should be updated, as necessary, to reflect the changes in the regulations and reporting requirements which became effective January 1, 1994. These changes should include inspection criteria for 72-hour inspections, and the procedures for handling misadministration reporting and follow-up. In addition, the State should specifically follow-up on the incident file I-6515 therapeutic misadministration and considerations should also be made as to whether this incident was an abnormal occurrence.

Summary Discussions with State Representatives

A summary meeting to present the results of the regulatory program review was held with Ms. Susan S. Ferguson, Director, Industrial and Hazardous Waste Division, and Ms. Alice Rogers, Manager, UIC, Uranium, and Radioactive Waste

Section, TNRCC, on March 10, 1994. The scope and findings of the review were discussed.

Ms. Ferguson was informed of the significance of the Category I findings concerning the two statutory issues that require changes. In reply, Ms. Ferguson related that the TNRCC looks at any suggestions or recommendations made by the NRC and applies these where improvements can be made in the State's program. She also expressed appreciation for any NRC assistance and training for the Division staff, and stated that the TNRCC will continue to support the radiation control program, any NRC-sponsored training courses, and cooperative efforts with the NRC and other Agreement State programs.

Ms. Ferguson was also informed of NRC's review, during February 14-18, 1994, of TDH's radiation control program for regulating agreement materials, i.e., agreement materials other than radioactive waste materials and uranium recovery facilities.

A second summary meeting to present the results of the regulatory program review was held with Ms. Carol Daniels, Deputy Commissioner, TDH; Mr. Glen Provost, Associate Commissioner, Associateship of Environmental and Consumer Health; Mr. Richard Ratliff, Chief, Bureau of Radiation Control, TDH; and Ms. Ruth McBurney, Director, Division of Licensing, Registration, and Standards, TDH on March 11, 1994.

Ms. Daniels was informed of the comments for the two Category I indicators, Adequacy of Product Evaluations, and Response to Incidents. In reply, Ms. Daniels asked several questions regarding funding for agreement materials programs. She also expressed appreciation for past NRC assistance and training for the Bureau staff, and said the Department will continue to support the radiation control program.

Ms. Daniels was also informed of NRC's review, during March 7-11, 1994, of TNRCC's radiation control program for regulating agreement materials (radioactive waste materials and uranium recovery facilities) which are now under the regulatory responsibility of the TNRCC.

Recommendations for Adequacy of Product Evaluations

- (1) The TDH should verify the information submitted by the manufacturer's in their SS&D applications.
- (2) The TDH should request and review complete operations manuals and users manual for device and source installation, service, maintenance, and emergency procedures to determine if any proposed activity would compromise worker safety or device integrity.
- (3) For devices distributed to general licensees, the TDH should clearly address the need for tamper-proof fasteners or manufacturing methods of the product to prevent easy access to the source by the licensee.
- (4) Radiation isodose curves should address the maximum activity (including multiple sources if applicable) that the device is authorized to contain.
- (5) The TDH should evaluate dimensions to ensure that all sources fit source holders and that the source is adequately held in place.
- (6) The TDH should determine if the method of attachment of the label and its materials of construction are adequate.
- (7) The quality assurance/quality control (QA/QC) discussions in the registry sheets tend to address only electrical operation and final leak test. The QA/QC discussion should address how the distributor will ensure that each product distributed meets the specifications submitted to the TDH.
- (8) The sealed source model designation should indicate the specific isotope for each listed model number.
- (9) The issue dates and signatures should appear after the line for the issuing agency.
- (10) A header in the registry sheet should indicate, "Amended in its Entirety" or similar wording for amendments.
- (11) The principal use code should be indicated on the registry sheet, to facilitate data entry.

ENCLOSURE 2
APPENDIX A

TEXAS SEALED SOURCE AND DEVICE REGISTRY SHEETS REVIEWED
DURING ROUTINE REVIEW OF MARCH 11, 1994

1. ASOMA Instruments TX157D101G
2. ASOMA Instruments TX157D102G
3. ASOMA Instruments TX157D103G
4. ASOMA Instruments TX157D104G
5. Solus Schall TX242D103S
6. ICI Tracerco TX734D102S
7. ICI Tracerco TX734D103S
8. Ludlum Measurements, Inc. TX426D107B
9. Berthold Systems Inc. TX186D114S
10. Tremetrics Inc. TX642D101B
11. Tremetrics Inc. TX642102S
12. Tremetrics Inc. TX642D103B
13. Texas Nuclear Products, TN Technologies, Inc. TX634D116S
14. Texas Nuclear Products, TN Technologies, Inc. TX634D131B
15. Texas Nuclear Products, TN Technologies, Inc. TX634D169B

SUMMARY OF INDICATORS ADEQUATELY SATISFIED BY THE TEXAS
RADIATION CONTROL PROGRAM
MARCH 27, 1992 TO MARCH 11, 1994

The Texas radiation control program satisfies NRC Guidelines in 21 of the 30 program indicators. The comments below are based upon an evaluation of the State's written response to the questionnaire, discussions with the program managers and staff, review team observations, review of the State's policies and procedures, licensing and inspection file reviews, and inspector accompaniments.

1. Location of the Radiation Control Program Within the State Organization
(Category II)

NRC Guidelines

The RCP should be located in a State organization parallel with comparable health and safety programs. The Program Director should have access to appropriate levels of State management. Where regulatory responsibilities are divided between State agencies, clear understandings should exist as to division of responsibilities and requirements for coordination.

Assessments

A. Texas Department of Health (TDH)

The regulatory authority for the agreement materials program, except for uranium recovery facilities and radioactive waste disposal, lies within the Texas Department of Health (TDH). The Chief of the Bureau of Radiation Control in TDH, has access to the appropriate levels of management in the TDH.

B. Texas Natural Resource Conservation Commission (TNRCC)

As a result of statutory changes over the past 2 years, the TNRCC has regulatory authority for the disposal of low level radioactive waste and for uranium mill tailings and uranium recovery facilities. The Director of the Industrial and Hazardous Waste Division in the TNRCC has access to the appropriate levels of management in the TNRCC.

2. Internal Organization of the RCP (Category II)

NRC Guidelines

The RCP should be organized with the view toward achieving an acceptable degree of staff efficiency, place appropriate emphasis on major program functions and provide specific lines of supervision from program management for the execution of program policy. Where regional offices or other government agencies are utilized, the lines of communication and administrative control between these offices and the central office (Program Director) should be clearly drawn to provide uniformity in licensing and inspection policies, procedures and supervision.

Assessments

A. Texas Department of Health (TDH)

Within TDH, the Texas Bureau of Radiation Control contains the Division of Licensing, Registration, and Standards and the Division of Compliance and Inspection as the major organizational functions within the Bureau.

There are a total of 11 regional offices in the State. Regional personnel report administratively to the Regional Director. The Regional Director is responsible for supervising activities such as leave, office services, and travel authorizations. All regional inspectors report technically to the Director of the Compliance and Inspection Division of the Bureau. A formal set of written procedures concerning the operation of the offices has been established. These procedures were reviewed during previous routine reviews of the Texas RCP.

To maintain consistency among the regional offices and headquarters office, the regional staff are brought together on a periodic basis to discuss technical as well as administrative policies and concerns. Based on discussions with the headquarters management staff, the Bureau is maintaining oral and written communication among the various regional offices on a continual basis. This was confirmed through discussions with regional staff inspectors.

B. Texas Natural Resource Conservation Commission (TNRCC)

The TNRCC radiation control program was reorganized in September 1993, with the creation of a new enlarged section entitled "Underground Injection Control (UIC), Uranium, and Radioactive Waste Section."

The new Section delineates TNRCC's programmatic functions clearly between the two teams, uranium and radioactive waste, and provides clear lines of responsibility and management supervision. The radioactive waste team is exclusively charged with the task of reviewing the LLW disposal facility application. The uranium team, in addition to the uranium program, also manages four non-uranium licenses that relate to onsite disposal of waste, and the surveillance of a number of non-licensed sites where buried radioactive materials exist.

In addition, compliance, inspection and surveillance functions of the program are shared with the Field Operations Division, Office of Legal and Regulatory Services. This is in accordance with TNRCC operating policy and procedure. In July 1993, the Field Operations Division appointed an experienced Health Physicist in the Region 13 Office in San Antonio. This inspector, although located in Region 13, will have at-large responsibilities for all radiation related activities covering all regions throughout the State.

3. Legal Assistance (Category II)

NRC Guidelines

Legal staff should be assigned to assist the RCP or procedures should exist to obtain legal assistance expeditiously. Legal staff should be knowledgeable regarding the RCP program, statutes, and regulations.

Assessments

A. Texas Department of Health (TDH)

The knowledge and capabilities of the legal support to the RCP were discussed with the program director. The TDH's Office of General Counsel (OGC) has been reorganized and a team of attorneys is now available for cases that the Bureau of Radiation Control refers. Their case load is heavy but they have provided timely legal assistance. Three of the attorneys have a good working knowledge of the Radiation Control Act, and associated regulatory activities.

During the reporting period, two attorneys from the OGC assisted in radiation control matters by attending staff meetings, Texas Radiation Advisory Board (TRAB) meetings, and selected rules meetings. OGC staff have also been utilized to review financial security mechanisms submitted to the TDH, orders, unique license conditions and rulemaking documentation; to approve publication of rotices in the Texas Register; and to offer legal interpretations of rules. In addition, OGC staff members assisted in developing and reviewing the contractual agreement between TDH and TNRCC that transferred TDH staff and resources to TNRCC.

The TDH utilized legal assistance from the OGC and the Texas Attorney General's Office for six administrative penalty cases involving radioactive materials and one case is pending. The Texas Attorney General resolved one civil case and has one major case in progress.

B. Texas Natural Resource Conservation Commission (TNRCC)

The knowledge and capabilities of the legal support to the RCP was discussed with the program director. Legal assistance has been provided to the TNRCC by attorneys in the agency's Legal Services Division starting from March 1, 1992, when jurisdiction for certain radiation control matters was first transferred to the TNRCC. The attorneys are available for consultation on all matters requiring legal review or consideration. Assistance provided during the review period has covered the following major areas: (1) adoption of TNRCC's radiation regulations, (2) drafting and assistance in an interagency contract, (3) representation in a major licensing case (Texcor), and (4) assistance in negotiating a Memorandum of Understanding (MOU) between TDH and TNRCC.

4. Technical Advisory Committees (Category II)

NRC Guidelines

Technical Committees, Federal Agencies, and other resource organizations should be used to extend staff capabilities for unique or technically complex problems. A State Medical Advisory Committee should be used to provide broad guidance on the uses of radioactive drugs in or on humans. The Committee should represent a wide spectrum of medical disciplines. The Committee should advise the RCP on policy matters and regulations related to use of radioisotopes in or on humans. Procedures should be developed to avoid conflict of interest, even though Committees are advisory. This does not mean that representatives of the regulated community should not serve on advisory committees or not be used as consultants.

Assessments

A. Texas Department of Health (TDH)

The subject of technical advisory committees was discussed with various members of the RCP staff to evaluate program capabilities for unique or technically complex problems. The Texas Radiation Advisory Board (TRAB) serves primarily the TDH and has authority to make recommendations on statewide policy. Its function is strictly advisory to the RCP. No formal procedures or requirements exist to avoid conflicts of interest except that each individual appointed by the Governor to the TRAB is thoroughly investigated by the Office of the Governor prior to his or her appointment. Since the Texas Radiation Control Act requires that members of the TRAB represent certain professions and interest groups, conflicts of interest that may possibly exist are precluded by the integrity of the individual members and ameliorated by the fact that there are 17 other members of the TRAB who vote on each decision or recommendation of the TRAB. Also, State ethics laws are applied to the TRAB.

B. Texas Natural Resource Conservation Commission (TNRCC)

The subject of technical advisory committees was discussed with various members of the RCP staff to evaluate program capabilities for unique or technically complex problems. Although Chapter 401, the Texas Health and Safety Code, does not currently give TRAB the specific authority regarding TNRCC's activities, the TNRCC has looked to the TRAB for advice. The TRAB will be asking the Texas Legislature to clarify their authority regarding TNRCC during the next legislative session.

5. Contractual Assistance (Category II)

NRC Guidelines

Because of the diversity and complexity of low-level radioactive waste disposal licensing and regulation, States regulating the disposal of low-level radioactive waste in permanent disposal facilities should have procedures and mechanisms in place for acquisition of technical and vendor services necessary

to support these functions that are not otherwise available within the RCP. The RCP should avoid the selection of contractors which have been selected to provide services associated with the LLW facility development or operations.

Assessments

A. Texas Department of Health (TDH)

This indicator does not apply to TDH because it does not have the authority to regulate low level waste disposal.

B. Texas Natural Resource Conservation Commission (TNRCC)

The availability of contractual support for the LLRW disposal program was determined through discussions with management staff. TNRCC's review of the low-level radioactive waste disposal application is expected to be accomplished mostly through the expertise of experienced staff within the Section. Additional assistance will be used as required from other sections or divisions of the agency. There may be a few areas where in-house expertise is not available and services of an outside expert may be needed. So far, the TNRCC has identified only one such area, the evaluation of socioeconomic impacts. This contract is being obtained under the procedures that exist in the TNRCC. An agreement (MOU) is being developed between the TNRCC and the TDH to support each other with staff, if needed, for specialized regulatory activities. Also, a contract is in place for laboratory services from the TDH's lab to the TNRCC.

6. Quality of Emergency Planning (Category I)

NRC Guidelines

The State RCP should have a written plan for response to such incidents as spills, overexposures, transportation accidents, fire or explosion, theft, etc. The Plan should define the responsibilities and actions to be taken by State Agencies. The Plan should be specific as to persons responsible for initiating response actions, conducting operations and cleanup. Emergency communication procedures should be adequately established with appropriate local, county and State agencies. Plans should be distributed to appropriate persons and agencies. NRC should be provided the opportunity to comment on the Plan while in draft form. The plan should be reviewed annually by Program staff for adequacy and to determine that content is current. Periodic drills should be performed to test the plan.

Assessments

A. Texas Department of Health (TDH)

The State's emergency response plan has been reviewed during previous routine reviews of the Texas program. The current Emergency Call List was reviewed for current telephone numbers of key responders to radiological emergencies. The TDH's materials emergency response plan is part of the State's radiological emergency response plan and is available to all staff members.

Annex L to the State Disaster Plan is, specifically, the TDH's section and primarily covers radiological emergency response planning.

A list of current telephone numbers on the Emergency Call list has been developed and given to all Texas licensees. Responsibilities for implementing the plan resides with the Austin Office and it assures that all regional office policies and procedures are consistent with the TDH's radiation control program and are within headquarters policy with respect to all emergency response actions. The State Disaster Plan provides for notification of and communication with appropriate government agencies. The TDH's Inspector's Manual has two sections that provide procedures relating to emergency response actions: (1) Incident Response/Investigation and Emergency Procedures, and (2) Enforcement Procedures.

B. Texas Natural Resource Conservation Commission (TNRCC)

The overall responsibility for emergency planning for fixed nuclear facilities resides with the TDH. However, most of the TNRCC staff are members of the TDH emergency response team, each having a specific assignment for which he or she has been trained. Several TNRCC staff members participated in a graded exercise conducted in July 1993, at the Comanche Peak Steam Electric Station, near Glen Rose, Texas.

At present, the TNRCC will continue to use, as needed, procedures for spills, overexposure, and other emergency response actions developed by TDH. However, the TNRCC has an emergency Response and Assessment Section, within the Pollution Cleanup Division. In the event of an actual emergency, this section would respond and the response would be coordinated with the UIC, Uranium, and Radioactive Waste Section.

7. Budget (Category II)

NRC Guidelines

Operating funds should be sufficient to support program needs such as staff travel necessary to conduct an effective compliance program, including routine inspections, follow-up or special inspections (including pre-licensing visits) and responses to incidents and other emergencies, instrumentation and other equipment to support the RCP, administrative costs in operating the program including rental charges, printing costs, laboratory services, computer and/or word processing support, preparation of correspondence, office equipment, hearing costs, etc., as appropriate.

States regulating the disposal of low-level radioactive waste facilities should have adequate budgetary resources to allow for changes in funding needs during the LLW facility life cycle. After appropriations, the sources of program funding should be stable and protected from competition from or invasion by other State programs. Principal operating funds should be from sources which provide continuity and reliability, i.e., general tax, license fees, etc. Supplemental funds may be obtained through contracts, cash grants, etc.

Assessments

A. Texas Department of Health (TDH)

The RCP's funding was reviewed for any limitations in administrative functions, incident response, inspection travel, laboratory services, etc. From this review, it was determined that the funding is sufficient to support the radioactive materials program. The program managers stated that there are no impediments to travel, equipment purchase or administrative support. All of the TDH's license fees go into the State general fund. Approximately 100 percent of operating revenues are covered by license fees.

B. Texas Natural Resource Conservation Commission (TNRCC)

The RCP's funding was reviewed for any limitations in administrative functions, incident response, inspection travel, laboratory services, etc. From this review, it was determined that the funding is sufficient to support the program and that about 35 percent of the radioactive materials program expenses are recovered by fees, the rest are met through State appropriations. These funding arrangements were a result of the program transfers that occurred from the TDH to TNRCC. The TNRCC plans to recover 100 percent of the program expenses through fees in the future.

8. Laboratory Support (Category II)

NRC Guidelines

The RCP should have the laboratory support capability in-house, or readily available through established procedures, to conduct bioassays, analyze environmental samples, analyze samples collected by inspectors, etc., on a priority established by the RCP.

In addition, States regulating the disposal of low-level radioactive waste in permanent disposal facilities should have access to laboratory support for radiological and nonradiological analyses associated with the licensing and regulation of low-level waste disposal, including soils testing, testing of environmental media, testing of engineering properties of waste packages and waste forms, and testing of other engineering materials used in the disposal of low-level radioactive waste. Access to laboratory support should be available on an "as needed" basis for nonradiological analyses to confirm licensees' and applicants' programs and conditions for nonradiological testing should be prescribed in plans or procedures.

Assessments

A. Texas Department of Health (TDH)

Laboratory support to the RCP was evaluated by reviewing sample analyses conducted during inspections and environmental monitoring programs. The TDH radiation laboratory support is provided by the Environmental Chemistry Laboratory within the TDH Bureau of Laboratories through an interagency contract. This laboratory provides radiation analytical support to the TDH

Bureau of Radiation Control (TDH/BRC). It has the capability of analyzing samples collected by inspectors during all types of inspections and environmental samples from the extensive monitoring programs run by the RCP. The laboratory was not visited during this review. Laboratory support for the Texas program is adequate.

B. Texas Natural Resource Conservation Commission (TNRCC)

Laboratory support to the RCP was evaluated by reviewing sample analyses conducted during inspections and environmental monitoring programs. The TNRCC does not have in-house radiation laboratory capability and depends entirely on the TDH laboratory for this support. The TNRCC presently has two laboratories, one in Austin (committed to the air quality program) and the other in Houston (committed to the waste and water resource management programs). The present TNRCC capability is limited to wet chemistry, trace metal analysis, and comprehensive air quality analysis, using such equipment as Atomic Absorption Spectrophotometer, Inductively-coupled Plasma Atomic Emission Spectrophotometer, Ion Chromatograph, Scanning Electron Microscope, and a Gas Chromatography/Mass Spectrometer (GC/MS). Plans for developing in-house radiation laboratory capability are being considered but may take years for realization. Laboratory services for nonradiological analyses were not evaluated during this routine review.

9. Management (Category II)

NRC Guidelines

Program management should receive periodic reports from the staff on the status of regulatory actions (backlogs, problem cases, inquiries, regulation revisions). RCP management should periodically assess workload trends, resources and changes in legislative and regulatory responsibilities to forecast needs for increased staff, equipment, services and fundings. Program management should perform periodic reviews of selected license cases handled by each reviewer and document the results. Complex licenses (major manufacturers, low-level radioactive waste disposal facilities, and large-scope Type A Broad), with potential for significant releases to the environment should receive second party review (supervisory, committee, consultant). Supervisory review of inspections, reports and enforcement actions should also be performed.

For the implementation of very complex licensing actions, such as initial license review, license renewals and licensing actions associated with a low-level radioactive waste disposal facility, there should be an overall Project Manager responsible for the coordination and compilation of the diverse technical reviews necessary for the completion of the licensing action. The Project Manager should have training or experience in one or more of the main disciplines related to the technical reviews which the Project Manager will be coordinating such as health physics, engineering, earth science or environmental science. When regional offices or other government agencies are utilized, program management should conduct periodic audits of these offices.

Assessments

A. Texas Department of Health (TDH)

Management functions and controls were discussed with supervisory staff for the RCP, and management reports on backlogs, actions due, regulation revisions, etc. were checked for timeliness and usefulness.

The licensing director for TDH and respective program chiefs review all licensing actions. The Director signs all radioactive material licenses and selected correspondence (except waste processing). Thus, management review and evaluation is performed continuously.

The Directors for licensing and compliance meet weekly with program chiefs to discuss and review major licensing actions and compliance issues. The Directors meet at least monthly with technical and administrative staff.

B. Texas Natural Resource Conservation Commission (TNRCC)

Management functions and controls were discussed with supervisory staff for the RCP, and management reports on backlogs, actions due, regulation revisions, etc. were checked for timeliness and usefulness.

In TNRCC, the UIC, Uranium and Radioactive Waste Section has been organized into teams which provide a mechanism for routine management review of the program activities. The section manager keeps track of the program activities through regular weekly meetings with the team leaders. These meetings (and reports) keep the management aware of the status of work, backlog, problem cases, inquiries and complaints, rule revision, and anticipated future activities. Problems are recognized at an early stage and the appropriate course of action is decided. The weekly meetings are also used to convey any directives from upper management. The management communication channels are maintained through a series of weekly meetings that occur sequentially at progressively higher levels of TNRCC management. Discussions with staff confirmed these management protocols. Management sign offs on inspection reports and licensing actions are also required in the section. A senior level review of inspection reports occurs before the management sign off.

The reviewers found that routine progress of day-to-day activities was being communicated up the chain of command through written reports. A "Weekly Activity Report" from the Section notifies the management of the status of the RCP relative to rulemaking, budget, personnel, new initiatives taken, media contacts, and any other significant items. Also submitted weekly, is the "Hot Issues Report," in which especially complex or controversial issues or cases are reported to the top management. The identified "hot issues" are discussed at the weekly meetings of the top management. Thus, in the present organizational structure of the TNRCC, intensive management review of routine program activities will not ordinarily be warranted.

However, one intensive management review of a license case was performed by the TNRCC staff. This was the Texcor Industries, Inc., radioactive material license application review and the public hearing associated with it, both of

which necessitated extensive management oversight of the technical review performed by the former TDH staff.

10. Office Equipment and Support Services (Category II)

NRC Guidelines

The RCP should have adequate secretarial and clerical support. Automatic typing and Automatic Data Processing and retrieval capability should be available to larger (300-400 licenses) programs. Similar services should be available to regional offices, if utilized. States should have a document management system that is capable of organizing the volume and diversity of materials associated with licensing and inspection of radioactive materials. Professional staff should not be used for fee collection and other clerical duties.

Assessments

A. Texas Department of Health (TDH)

Office equipment and support services were discussed with the program managers. Adequate equipment and support services are being supplied within the TDH. TDH has adequate word processing (Wordstar 6.0 and WordPerfect 5.1), data processing (FoxPro 2.5) and spread sheet programs (Lotus 1-2-3).

B. Texas Natural Resource Conservation Commission (TNRCC)

Office equipment and support services were discussed with the program managers. The transfer of programs to the TNRCC produced some initial problems in the administrative support area. In particular, the secretarial support had been marginal since the uranium mill program was transferred to the TNRCC. At the time of the review, a second secretary in the section was being added for a second time. This new administrative support is expected to take some load off the technical staff for routine filing and correspondence efforts.

A part of the support function that has undergone a smooth transfer is the management of official records. License files were transferred from the TDH to the custodian within TNRCC. However, some additional training of file room staff is needed to assure correct filing of all documents.

At the time of the review, the TNRCC has taken the proper steps to satisfy this indicator for support services.

11. Public Information (Category II)

NRC Guidelines

Inspection and licensing files should be available to the public consistent with State administrative procedures. It is desirable, however, that there be provisions for protecting from public disclosure proprietary information and information of a clearly personal nature. Opportunity for public hearings

should be provided in accordance with UMTRCA and applicable State administrative procedure laws during the process of major licensing actions associated with UMTRCA and low-level radioactive waste in permanent disposal facilities.

Assessments

A. Texas Department of Health (TDH)

The response of the RCP for information to the public was evaluated through discussions with managers and checking Department procedures and requirements under the Texas Open Records Act.

All files of the TDH, including licensing and inspection files, are open and available to the public subject to limitations of the Texas Open Records Act. As a general rule, only the following categories of information contained in licensing and inspection files are not open records:

- a. Medical records.
- b. Proprietary information
- c. Files on active investigations where disclosure would jeopardize the outcome of the investigation.

Generally, press releases are written by the public information staff and are distributed to the appropriate media after final approval by the Bureau Chief.

All Texas State agencies are governed by the Texas Open Records Act, and the Administrative Procedure Act (APA). These statutes set forth the minimum requirements for ensuring public access to information and public participation in Department proceedings, although minor changes may exist between agencies in the manner of implementation of these statutes.

B. Texas Natural Resource Conservation Commission (TNRCC)

The response of the RCP for information to the public was evaluated through discussions with managers and checking Department procedures and requirements under the Texas Open Records Act.

TNRCC files are open and available to the public subject to the limitations of the Texas Open Records Act. Medical records, proprietary information, and ongoing investigations may be withheld. Final agency decisions made by the TNRCC Commissioners on enforcement, licensing, or policy issues are always made in an open forum (called "agenda meetings") held in accordance with the requirements of the Texas Open Meetings Act. On a quarterly basis, the Commissioners also meet with the environmental community and hear their concerns.

12. Qualifications of Technical Staff (Category II)

NRC Guidelines

Professional staff should have a bachelor's degree or equivalent training in the physical and/or life sciences. Additional training and experience in radiation protection for senior personnel including the director of the radiation protection program should be commensurate with the type of licenses issued and inspected by the State.

For States regulating uranium mills and mill tailings, staff training and experience should also include hydrology, geology, and structural engineering. (Additional guidance is provided in the Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement (46 FR 7540, 36969 and 48 FR 33376)).

For programs which regulate the disposal of low-level radioactive waste in permanent facilities, staff training and experience should include civil or mechanical engineering, geology, hydrology, and other earth science, and environmental science. In both types of materials, staff training and experience guidelines apply to available contractors and resources in State agencies other than the RCP.

Written job descriptions should be prepared so that professional qualifications needed to fill vacancies can be readily identified.

Assessments

A. Texas Department of Health (TDH)

Written job descriptions were reviewed for new employees within the TDH. An extensive list of training courses for the Bureau staff was reviewed. The Bureau staff attend many NRC training courses on a routine basis. TDH management strongly supports this training, whenever possible. The staff was found to be trained sufficiently to cover the requirements of a broad and diverse radiation control program.

The Bureau managers have attended NRC's core courses, numerous other technical training courses, and have considerable experience with radiation safety programs.

The Bureau's technical staff all have bachelor degrees and many have additional degrees and training in the use of radioactive materials. The TDH RCP meets the guidelines for this indicator.

B. Texas Natural Resource Conservation Commission (TNRCC)

Written job classification sheets for technical personnel in the TNRCC were reviewed for new personnel in the agreement materials program. The list of training courses taken by technical staff during the review period was reviewed.

The TNRCC maintains a Performance Plan and Appraisal and Development Plan for each employee, which is a confidential document used in personnel evaluation. This document includes specific task statements for each staff position. Formal job classification sheets for currently existing classified professional categories in the TNRCC are used. These include the Engineer (IV and V), Geologist (III through V), Health Physicist (HP) (I through V), and Environmental Quality Specialist (EQS) (I through VI).

All TNRCC technical staff have bachelor degrees or advanced degrees. The TNRCC staff include all of the disciplines necessary for a LLRW disposal regulatory program. Many of the staff were transferred from the TDH and had many of NRC's training courses in the past. The TNRCC managers are just now beginning to set up schedules for future training. One problem exists for TNRCC staff, since their greatest need is for courses related to uranium mill tailings, and NRC has no current courses for uranium mill activities. During the review, Region IV offered to include the TNRCC staff in upcoming regional training for uranium mill activities. On July 12, 1994, the State participated in an Introduction to Health Physics Aspects of Uranium Material training session. The TNRCC RCP meets the guidelines for this indicator.

13. Staff Supervision (Category II)

NRC Guidelines

Supervisory personnel should be adequate to provide guidance and review the work of senior and junior personnel. Senior personnel should review applications and inspect licenses independently, monitor work of junior personnel, and participate in the establishment of policy. Junior personnel should be initially limited to reviewing license applications and inspecting small programs under close supervision.

Assessments

A. Texas Department of Health (TDH)

Supervisory personnel were interviewed to determine the extent of guidance and review of work by senior and junior personnel.

Senior level personnel in TDH review licensee documents, make necessary changes if any, and sign licenses. Senior personnel are responsible for ensuring that the licensing activities are appropriate and according to Bureau policy.

Junior personnel are involved in the review and preparation of licenses. They communicate with the applicants to obtain additional information when

necessary. In addition, initial training of new employees usually involves informal (on-the-job) training, including working under the close supervision of senior personnel in conducting materials inspections and reviewing simple licensing actions.

B. Texas Natural Resource Conservation Commission (TNRCC)

Supervisory personnel were interviewed to determine the extent of guidance and review of work by senior and junior personnel. The TNRCC radiation control staff is staffed with experienced personnel, and a few less experienced junior staff. There is management review and supervisory oversight of inspection reports and licensing actions. A senior level review of inspection reports occurs before the management sign off.

In case of complex license reviews, such as review of an initial license application or a closure plan for a uranium tailings facility, a selected number of staff from both the Uranium and LLW teams would be named for that specific purpose, and they would participate in the review and in technical discussions with the applicant or licensee.

Formal review opinions by such specifically assigned staff would be documented in the form of interoffice memos, copies of which are transmitted to the license file.

A special case of complex review is the low-level radioactive waste (LLW) disposal facility application. The separate LLW team was created for that specific purpose. A project manager has been named to supervise all aspects of the project. This person reports to the Section Manager.

14. Training (Category II)

NRC Guidelines

Senior personnel should have attended NRC core courses in licensing orientation, inspection procedures, medical practices and industrial radiography practices. The RCP should have a program to utilize specific short courses and workshops to maintain appropriate level of staff technical competence in areas of changing technology. The RCP staff should be afforded opportunities for training that are consistent with the needs of the program.

Assessments

A. Texas Department of Health (TDH)

Lists of training courses taken by the RCP staff during the review period were examined by the NRC reviewer. Most of the senior personnel in the radiation control program have attended the NRC core courses. In addition, TDH has senior staff that are well qualified and have attended many related training courses over the years.

B. Texas Natural Resource Conservation Commission (TNRCC)

Lists of training courses taken by the RCP staff during the review period were examined by the NRC reviewer. TNRCC also has senior staff that are well qualified and who have attended many training courses over the years. Nonetheless, the TNRCC staff, due to the new responsibilities being placed on the staff, could benefit by attending several of NRC's training courses for Agreement State personnel. Three inspectors could benefit by taking the inspection procedures course and two new license reviewers (when hired) could benefit by taking the licensing course. The course coordinators for NRC courses will be alerted to these needs in specific cases.

15. Staff Continuity (Category II)

NRC Guidelines

Staff turnover should be minimized by combinations of opportunities for training, promotions, and competitive salaries. Salary levels should be adequate to recruit and retain persons of appropriate professional qualifications. Salaries should be comparable to similar employment in the geographical area. The RCP organization structure should be such that staff turnover is minimized and program continuity maintained through opportunities for promotion. Promotion opportunities should exist from junior level to senior level or supervisory positions. There also should be opportunity for periodic salary increases compatible with experience and responsibility.

Assessments

A. Texas Department of Health (TDH)

Four technical employees in the TDH program have left the program since the last review. Most left to accept higher paying jobs in industry or to return to school. Offsetting this has been a decrease in staff resource needs in the agreement materials program, because of the transfer of the LLRW and uranium mill programs to the TNRCC. TDH has opportunities for professional growth, advancement, and compensation.

B. Texas Natural Resource Conservation Commission (TNRCC)

One individual left the TNRCC radiation control program in June 1993. He joined private industry in Austin for career advancement.

Generally, staff turnover within the radiation control program has been low in comparison to the rest of the agency. Overall, the TNRCC has a comprehensive program for encouragement, recognition, and promotion of staff. Program staff transferred from the TDH were recipients of merit raises or promotions. The TNRCC has recently started a Total Quality Management (TQM) team to make recommendations to the Executive Director regarding opportunities for professional growth, advancement, and compensation.

16. Licensing Procedures (Category II)

NRC Guidelines

The RCP should have internal licensing guides, checklists, and policy memoranda consistent with current NRC practice.

In States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, the RCP should have program specific licensing guides, plans and procedures for license review and policy memoranda which relate to specific aspects of waste disposal. The program should include the preparation of safety evaluation reports, product certifications, or similar documentation of license review and approval process. License applicants (including applicants for renewals) should be furnished copies of applicable guides and regulatory positions. The present compliance status of licensees should be considered in licensing actions. Under the NRC Exchange-of-Information program, evaluation sheets, service licenses, and licenses authorizing distribution to general licensees and persons exempt from licensing should be submitted to NRC on a timely basis. Standard license conditions comparable with the current NRC standard license conditions should be used to expedite and provide uniformity in the licensing process. Files should be maintained in an orderly fashion to allow fast, accurate retrieval of information and documentation of discussions and visits.

Assessments

A. Texas Department of Health (TDH)

The RCP's standard license conditions, guides, checklists and policy memoranda were selectively reviewed for usefulness and consistency with NRC practice.

The TDH utilizes license guides prepared from NRC license guides. License applicants are furnished a copy of all applicable guides.

A licensee's compliance history is considered before taking any licensing action. If compliance action is pending against a licensee, no licensing action is taken until the compliance action is completed. Management conferences are coordinated and attended by representatives of the compliance and licensing staffs. The standard license conditions are comparable with current NRC standard license conditions and the Department has supplied a copy for NRC files.

B. Texas Natural Resource Conservation Commission (TNRCC)

The RCP's standard license conditions, guides, checklists and policy memoranda were selectively reviewed for usefulness and consistency with NRC practice.

The TNRCC continues to use applicable TDH-issued regulatory guides and internal policy memoranda which were in place at the TDH at the time of program transfer to the TNRCC. The section staff have drafted preliminary procedures for processing license applications at the TNRCC, public notification, presentation at the TNRCC Commissioner's agenda, etc. A format

for a simplified method of logging and tracking applications has been developed for use of the section at the TNRCC. A license review sheet for use of staff at the TNRCC has been developed to document the review of license applications. Modifications and additions to forms and procedures will be made by the TNRCC staff as time permits.

In the on-going review of the application for the low-level radioactive waste disposal site, the staff's environmental and safety evaluations are addressing all of the topics included in NUREG 1200 and 1300. An index of those topics was prepared for staff use in assigning the work to individual staff and to assure that all topics are covered. A standard form has been developed to document the review made by each staff member; this includes a record of the findings, references used, and any comments from peer review. Suggested procedures for staff review and written analysis have been prepared. Documentation of meetings and discussions with the applicant is made. The TNRCC staff are generally following two draft guidance documents developed at the TDH prior to transfer of the program to the TNRCC. These guidance documents are (1) Position Paper for the Review of the Low-Level Radioactive Waste Disposal Application for Administrative Sufficiency, and (2) Licensing Branch Technical Position for the Review of a Low-Level Radioactive Waste Disposal Facility [Application].

17. Status of Inspection Program (Category I)

NRC Guidelines

The State RCP should maintain an inspection program adequate to assess licensee compliance with State regulations and license conditions.

The inspection program in all States should provide for the inspection of licensee's waste generation activities under the State's jurisdiction. In States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, the RCP should include provisions for pre-operational, operational and post-operational facility inspections. The inspections should cover all program elements which are relevant at the time of the inspection and be performed independently of any resident inspector program. In addition, inspections should be conducted on a routine basis during the operation of the LLW facility, including inspection of incoming shipments and licensee site activities.

The RCP should maintain statistics which are adequate to permit Program Management to assess the status of the inspection program on a periodic basis. Information showing the number of inspections conducted, the number overdue, the length of time overdue and the priority categories should be readily available. There should be at least semiannual inspection planning for the number of inspections to be performed, assignments to senior versus junior staff, assignments to regions, identification of special needs and periodic status reports. When backlogs occur the program should develop and implement a plan to reduce the backlog. The plan should identify priorities for inspections and establish target dates and milestones for assessing progress.

Assessments

A. Texas Department of Health (TDH)

The RCP's procedures regarding inspections and lists of overdue inspections were examined during the reviews. From this review, it was determined that TDH is essentially up-to-date for their significant licensee inspections. Only four inspections were overdue by more than 50 percent of their inspection interval. Out of approximately 625 licensees in the priority 1 and 2 inspection category, there were only three overdue by 7 months each and one was overdue by 16 months. At the time of the review, the reviewer noted that the overdue inspections had been scheduled for inspection.

Inspection scheduling is accomplished through the use of the automatic data processing printout which identifies the inspections due. Special or follow-up inspections are scheduled separately or they are scheduled as being due immediately by coding the data processor to indicate that the inspection was not accomplished in the previously designated inspection interval. Management uses automatic data processing for continuing and long-range minimum interval statistical analyses and planning.

B. Texas Natural Resource Conservation Commission (TNRCC)

The RCP's procedures regarding inspections and lists of overdue inspections were examined during the reviews. The TNRCC has no overdue inspections. Program management chose to keep inspections up-to-date at the expense of licensing actions. Now, two new staff members are being hired to address the licensing backlog.

The TNRCC compliance supervisor and the two inspectors identify inspection priorities during each inspection scheduling meeting (held at least quarterly). Inspections are prioritized using both inspection due dates and the category of inspection; the highest priority facilities are inspected first. The proposed inspection schedule always lists the inspection due date. Each inspection schedule is forwarded to the section leader for approval. The compliance supervisor, the inspectors, and the environmental surveillance individual, among them, perform the high priority inspections expeditiously. Using this inspection system, the TNRCC anticipates having no overdue inspections within the near future.

18. Inspection Frequency (Category I)

NRC Guidelines

The RCP should establish an inspection priority system. The specific frequency of inspections should be based upon the potential hazards of licensed operations. The minimum inspection frequency including for initial inspections should be no less than the NRC system.

Assessments

A. Texas Department of Health (TDH)

The inspection priority system of TDH requires inspections at intervals at least as frequent as those required by the NRC inspection priority system. The TDH also inspects more frequently than the NRC for several categories of licensees.

B. Texas Natural Resources Conservation Commission (TNRCC)

The inspection priority systems of TNRCC requires inspections at intervals at least as frequent as those required by the NRC inspection priority system. Some inspections are performed more frequently than those required by NRC. For example, the priority frequency for uranium recovery facility inspections at TNRCC is every 6 months as compared to NRC's annual inspections.

19. Inspector's Performance and Capability (Category I)

NRC Guidelines

Inspectors should be competent to evaluate health and safety problems and to determine compliance with State regulations. Inspectors must demonstrate to supervision an understanding of regulations, inspection guides, and policies prior to independently conducting inspections. For the inspection of complex licensed activities such as permanent low-level radioactive waste disposal facilities, a multidisciplinary team approach is desirable to assure a complete compliance assessment. The compliance supervisor (may be RCP manager) should conduct annual field evaluations of each inspector to assess performance and assure application of appropriate and consistent policies and guides.

Assessments

A. Texas Department of Health (TDH)

One regional inspector in San Antonio, Texas, was accompanied during a medical inspection by NRC for this year's routine review of the TDH program. The inspector was found to be competent to evaluate health and safety problems and compliance with regulatory requirements. In addition, the reviewer noted that the TDH managers accompany all inspectors on at least an annual basis.

B. Texas Natural Resource Conservation Commission (TNRCC)

No NRC accompaniment of a TNRCC uranium inspector was accomplished this year. However, the TNRCC inspectors were accompanied many times by a TDH expert during training. This TDH inspector functioned as their supervisor during this period of initial training of TNRCC staff.

20. Inspection Reports (Category II)

NRC Guidelines

Findings of inspections should be documented in a report describing the scope of inspections, substantiating all items of noncompliance and health and safety matters, describing the scope of licensees' programs, and indicating the substance of discussions with licensee management and licensee's response. Reports should uniformly and adequately document the results of inspections and identify areas of the licensee's program which should receive special attention at the next inspection. Reports should show the status of previous noncompliance and the independent physical measurements made by the inspector.

Assessments

A. Texas Department of Health (TDH)

Inspection reports were examined for completeness with checklists for the appropriate inspections and for consistency with NRC practice. For the TDH's program, findings of inspections are documented satisfactorily in the inspection reports which describe the scope of the inspections, as well as all noncompliance items and any health and safety matters. The five selected compliance files that were reviewed adequately documented the results of the inspection and identified specific items which should be reviewed during the next scheduled inspection. Inspection reports adequately closed out violations from previous inspections. Standard violations are maintained in the Bureau's enforcement manual. The RCP satisfies the guidelines for this indicator.

B. Texas Natural Resource Conservation Commission (TNRCC)

Inspection reports were examined for completeness with checklists for the appropriate inspections and for consistency with NRC practice. Although TNRCC is currently still using TDH report formats, TNRCC is in the process of modifying these forms to reflect changes made as a result of the transfer of responsibility from the TDH to the TNRCC. In addition, TNRCC intends to include modifications and refinements to the forms to incorporate any changes in procedures that would aid in improving the inspection process. It is expected that TNRCC will have these forms modified within a year. Two draft inspection reports were reviewed and found to satisfy the guidelines for this indicator.

21. Confirmatory Measurements (Category II)

NRC Guidelines

Confirmatory measurements should be sufficient in number and type to ensure the licensee's control of materials and to validate the licensee's measurements.

In States which regulate the disposal of low-level radioactive waste in permanent disposal facilities, access to testing should be available on an "as

needed" basis for confirming licensees' and applicants' programs for measurements related to nonradiological aspects of facility operations; such as, soils and materials testing and environmental sampling, and analysis to demonstrate compliance with 10 CFR Part 61 or compatible Agreement State regulations, and ensure facility performance. Conditions for nonradiological testing should be prescribed in plans or procedures.

Assessments

A. Texas Department of Health (TDH)

Discussions with RCP managers and technical staff were held to determine the sufficiency of confirmatory measurements made during the programs regulatory activities. Confirmatory measurements were noted during compliance file reviews. It is TDH's policy to conduct independent measurements as a regular part of materials inspections. These include direct radiation readings and checks for contamination. The number and type of radiation surveys taken during inspections are adequate.

Reviews of five selected inspection reports and discussions with the staff indicated that the TDH policy for conducting independent measurements as part of the inspection is being followed. An inventory of the radiation survey instruments and laboratory equipment that is available to the staff is adequate for the scope of this agreement materials program.

B. Texas Natural Resource Conservation Commission (TNRCC)

Discussions with RCP managers and technical staff were held to determine the sufficiency of confirmatory measurements made during the programs regulatory activities. Confirmatory measurements were noted during compliance file reviews.

Currently, TNRCC is using instrumentation that transferred with the positions from the TDH. TNRCC recently requisitioned three additional micro-R meters (similar to Ludlum Model 19). Other specialized instrumentation that is needed can be borrowed from the TDH. If it is found that more specialized instrumentation is needed at the TNRCC on an ongoing basis, then it will be procured. TNRCC currently uses services of TDH for instrument calibration.

Both agencies use the same laboratory for measurement of samples that may contain radioactive materials, i.e., the Texas Department of Health Laboratory. Testing performed by the TNRCC at the proposed LLRW disposal site up-to-date include soil, sediment, vegetation, and groundwater testing to independently confirm the applicant's data for gamma, gross alpha, gross beta, and tritium values. In addition, a TLD monitoring program is in place by the TNRCC to independently confirm a background radiation profile for the site. The TNRCC program satisfies the guidelines for this indicator.

disposal facility is operational. Finally, the Commission should note that these issues have been identified in past reviews, but have not resulted in either an adequacy or compatibility withholding.

Since Texas has not taken action to implement the needed changes, staff believes that a formal withholding of compatibility is necessary, and will be sufficient, to prompt the necessary statutory and regulation amendment actions. The staff does note that if the language in the Texas' statutes is not revised, that it may lead to a withholding of a finding of adequacy in the future. In the attached letter, staff has recommended that the State take legislative action to change the definition of low-level waste, the definition of byproduct material, and the prohibition on disposal of transuranics in concentrations greater than 10 nanocuries per gram to conform to NRC's provisions in these areas. In the proposed letter, staff has also indicated that if the necessary regulation revisions are not promulgated by the time of the licensing of the low-level waste disposal facility in Texas, that a finding that the State's program is incompatible with NRC's regulatory program will be considered. Moreover, a letter documenting the preliminary findings from this review (a copy is attached) was transmitted to the State to assist them in drafting legislation during the upcoming Texas legislative session.

The Texas routine review letter has been reviewed by the Office of General Counsel, and it has no legal objections. I plan to transmit the Texas letter to the State within ten working days.

SECY, please track.

Attachments:
As stated

cc: SECY
OGC
OCA
OPA

*This new position has been extensively
discussed with both Texas program and they
official is*

*have no major oppositors with
the new approach*



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

David R. Smith, M.D.
Commissioner
Texas Department of Health
1100 West 49th Street
Austin, TX 78756

Mr. Dan Pearson, Executive Director
Texas Natural Resource
Conservation Commission
P.O. Box 13087
1700 North Congress Avenue
Austin, TX 78711

Dear Dr. Smith and Mr. Pearson:

This is to transmit the results of the NRC review and evaluation of the Texas radiation control program conducted by Mr. Robert Doda, NRC Region IV State Agreements Officer and other members of the NRC staff which was concluded on March 11, 1994. The results of the review and evaluation of the Texas Natural Resource Conservation Commission (TNRCC) radiation control program were discussed with Ms. Susan Ferguson, Director, Industrial and Hazardous Waste Division, TNRCC and Ms. Alice Rogers, Manager, Underground Injection Control (UIC), Uranium, and Radioactive Waste Section, TNRCC on March 10, 1994. The results of the review and evaluation of the Texas Department of Health (TDH) radiation control program for agreement materials were discussed with Ms. Carol Daniels, Deputy Commissioner, TDH; Mr. Glen Provost, Associate Commissioner, Associateship of Environmental and Consumer Health; Mr. Richard Ratliff, Chief, Bureau of Radiation Control, TDH; and Ms. Ruth McBurney, Director, Division of Licensing, Registration, and Standards, TDH on March 11, 1994.

The authority to regulate the disposal of low-level radioactive waste was transferred to the TNRCC on March 1, 1992, and the authority to regulate uranium recovery facilities was transferred to the TNRCC on September 1, 1993. The other parts of the agreement materials program remained with the TDH. Accordingly, NRC has conducted a separate review for each agency but has made one determination as to the adequacy and compatibility of the State of Texas program for administering the Agreement under Section 274b of the Atomic Energy Act of 1954, as amended.

As a result of our review of the State's program and the routine exchange of information between the NRC and the State of Texas, the staff has determined that the Texas program for the regulation of agreement material, at this time, is adequate to protect the public health and safety. However, a finding that the Texas program is compatible with the NRC's program is being withheld because (1) the definition of low-level waste in the Texas Low-Level Radioactive Waste Disposal Authority Act (TLLRWDA) is not compatible with NRC's definition because it places limitations on radioactive materials with a half-life greater than 35 years and transuranics in concentrations greater

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than 10 nanocuries per gram; (2) the definition of byproduct material in subsection 401.003(3)(B) of the Texas statute, Radioactive Materials, Title 5 is not compatible with NRC's definition; (3) provisions in the TLLRWDA and in Texas Part 45, "Licensing Requirements for Near-Surface Land Disposal of Radioactive Waste," prohibit the disposal of transuranics in concentrations greater than 10 nanocuries per gram; (4) the regulation concerning notification of incidents which was to be adopted by October 15, 1994 has not been adopted; (5) compatibility concerns exist regarding Texas regulation 40.52, "General Licenses-Radioactive Material Other Than Source Material;" and 6) the regulation establishing a prohibition against the use of self-insurance as the surety arrangement for uranium recovery facilities has not been adopted within the three year period required by the NRC.

We recommend that the State take legislative action to change the definition of low-level waste, the definition of byproduct material in subsection 401.003(3)(B), and the prohibition on disposal of transuranics in concentrations greater than 10 nanocuries per gram to conform to NRC's provisions in these areas. If these revisions are not corrected by the time of the licensing of the low-level waste facility in Texas, NRC will consider finding the State's program incompatible with NRC's regulatory program. We also recommend that the State take measures to adopt the overdue regulation on prohibition against the use of self-insurance as soon as possible.

Please note that there has been a change made in the format of this letter from our previous review letters. This letter summarizes the findings regarding all 30 program indicators as opposed to only discussing those indicators where deficiencies were noted. Enclosure 1 contains an explanation of our policies and practices for reviewing Agreement State programs. Enclosure 2 is a summary of the review findings where recommendations are made for improvements in the radiation control program. This enclosure contains documentation on the Scope of Review, Conclusion, Status of Program Related to Previous NRC Findings, Current Review Assessments and Recommendations, and Summary Discussions with State Representatives. We request specific written responses from the State on the recommendations in Enclosure 2 within 30 days of this letter. We recognize the delay in our issuance of this letter; if you require more than 30 days to respond, please let us know.

Enclosure 3 presents a summary of the review findings where the State has adequately satisfied the indicators. A written response to the items in Enclosure 3 is not required.

This review used a team approach, which involved seven NRC staff members at various times during the review. This allowed more time for individual discussions with members of both the TDH's and the TNRCC's radiation control staffs. During the course of the review, we were able to hold meetings with members of these staffs in eleven different subject areas, which were of current interest to both the State agencies and the NRC.

Dr. Smith and Mr. Pearson

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I appreciate the courtesy and cooperation extended by your staff to Mr. Doda and the other NRC representatives during the review.

Sincerely,

Richard L. Bangart, Director
Office of State Programs

Enclosures:

As stated

cc w/enclosures:

Richard A. Ratliff, Chief
Texas Bureau of Radiation Control, TDH

Minor Hibbs, Director
Industrial and Hazardous Waste Division, TNRCC

Chairman, Texas Radiation Advisory Board
Texas Bureau of Radiation Control, TDH

Susan Rieff, State Liaison Officer

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Susan Rieff, State Liaison Officer

bcc w/enclosures:
The Chairman
Commissioner Rogers
Commissioner de Planque

Distribution: See next page.

* See previous concurrence

** By phone

OFC	RIV:RSAO	RIV:DRA	OSP:SPM	OSP:SA	OSP:DD
NME	RJDoda	JMontgomery	CHMaupin	DSollenberger	PLohaus
DTE	10/17/94**	10/21/94**	10/17/94*	11/1/94*	10/17/94*

OFC	NMSS:D	OGC	OSP:D <i>K</i>	DEDS	ED <i>Or</i>		
NME	RBernero	FCameron	RBangart <i>11/29</i>	HLThompson	JMTaylor		
DTE	10/28/94*	11/03/94*	11/ /94	11/ /94	11/ <i>✓</i> /94		

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DTE	10/ /94	10/ /94	10/17/94*	10/ /94	10/17/94*

OFC	NMSS: DDO	OGC	OSP: DDO	DEDS	EDO
NME	RBernero	FCameron	RBangart	HLThompson	JMTaylor
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OFC	NMSS:D	OGC	OSP:D	DEDS	EDO		
NME	RBernero	FCameron	RBangart	HLThompson	JMTaylor		
DTE	10/ /94	10/ /94	10/ /94	10/ /94	10/ /94		

David R. Smith, M.D.

-4-

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Office of State Programs

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DTE	10/ /94	10/ /94	10/ /94	10/ /94	10/ /94		

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LCallan, RIV

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JGilliland, RIV

CHackney, RIV

RDoda, RIV

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PDR (YES ___ NO ___)