



Texas Radiation Advisory Board

Michael Ford, C.H.P.
Chair

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February 10, 2003

Charles R. Matthews
Michael L. Williams
Railroad Commission of Texas
P.O. Box 12967
Austin, Texas 78711-2967

Dear Commissioners Matthews and Williams:

The Texas Radiation Advisory Board (TRAB), as required to do so by statute, at its January 25, 2003, meeting reviewed and made recommendations concerning proposed radiation rules of the Railroad Commission of Texas (RCT). I am writing to convey to you the board's recommendations and explain the board's concerns with the proposed rules regarding NORM (naturally occurring radioactive material).

The TRAB recommended against adoption of new 16 TAC Chapter 4 Subchapter F regarding oil and gas NORM and repeal of Statewide Rule 94 Disposal of NORM. The Industrial and Waste Committee of the TRAB lead the review of this rule and is chaired by Earl Erdmann, the TRAB representative of the *Petroleum Well Service Industry*.

Mr. Erdmann's expertise includes more than 27 years experience in the well service industry having considerable experience with radioactive materials used in the industry as well as NORM. Additional expertise comes from other board members on that committee and totals more than 50 years in such industrial operations.

I offer a brief explanation of seven particular issues that concern the TRAB. In summary, this rule as proposed, simply requires operators to tag and/or label any equipment that exceeds 50 micro-R per hour, to keep those records for five years and includes disposal criteria.

TRAB believes that the Railroad Commission staff has omitted or ignored some significant issues as follows:

1. There are no reporting requirements to the RCT when NORM is identified. The RCT recently conducted a study at a cost to the state of both time and money to determine where and how much NORM is in the state. With only one study performed by RCT, obtaining the information generated by the operators would be invaluable to the RCT as well as to the Texas Department of Health (TDH) to assess current or future rule making.

Recommendation: The RCT should require by rule that operators who identify NORM in the field report the findings to the RCT in summarized form or affidavit. The report should simply provide the RCT Lease or Unit Number, the name of the operator, the name of the surface owner, the number of incidences of NORM, the maximum survey reading and the average for the facilities covered by that RCT lease number. This reporting requirement will provide an invaluable database for future rule making. A copy of this report should also be provided to the landowner. Since the proposed rule already requires the work to be done and records kept, the only additional cost to the operator is postage required to deliver the information to the RCT and the landowner. The reports could be scanned in or made electronically and compiled to a database at minimal cost to the RCT. If no NORM is identified, then no reports are required.

2. The proposed RCT rule and current TDH regulations allow for onsite application of NORM as long as the 30 pCi/g and 150 pCi/g concentrations are not exceeded without notification to the landowner.

Recommendation: Onsite land application of NORM could result in increased radiation exposures to persons occupying or using the land where the application is made. RCT and TDH as applicable should require landowner consent prior to the onsite application. When onsite application is performed, RCT and landowner notification of the location should be required. This simple notification should avoid needless exposures by avoiding use of the application areas for housing, children's playgrounds or other inappropriate uses when other land is available. RCT and TDH should consider a requirement for a "meets and bounds" description of the application area and filing a deed record. For a point of comparison, this is a current requirement by TDH for land where application of *in situ* uranium restoration fluids are performed even though the limits for radium-226 are 5 pCi/g, which is 6 times lower than the 30 pCi/g allowed for NORM. The proposed rule allowing land application of NORM without notification and consent of the landowner and subsequent landowners is a trial lawyer's dream come true.

3. The tagging and labeling requirements are not sufficiently specific.

Recommendation: All tags, signs or labels should include the internationally-recognized radiation symbol and the word "NORM." The RCT should consider a requirement for the placement of a sign at the entrance to the Lease property warning of the occurrence of NORM in both Spanish and English. This is imperative for informing the average worker who may not know what NORM is or its possible hazards. TDH currently requires *in situ* uranium licensees to post warning signs in both Spanish and English around irrigation application areas in South Texas.

4. There is no requirement for notification to a potential purchaser of NORM contaminated equipment.

Recommendation: There should be a prohibition on the sale of NORM contaminated equipment without notification to the purchaser. This requirement should be in both the RCT and TDH rules.

5. The five year record retention requirement is inadequate.

Recommendation. Survey records and reports to the RCT should be kept on file by the operators for as long as they possess the NORM contaminated equipment and transferred to the purchaser if it is sold. Only after final disposal or decontamination should records be allowed to be destroyed.

6. There should be a requirement in both the RCT and TDH rules to require disposal or decontamination within one year of equipment or locations that have been permanently taken out of service. Time extensions can be considered on a case by case basis.

7. The state should consider a requirement for posting performance bonds by those operators possessing NORM. Should an operator go out of business prior to addressing the NORM on a site, the liability unfairly falls to the landowner who is in possession by default. This is an unacceptable liability to the landowner and the state who will ultimately have to deal with abandoned locations and equipment. NORM should not be transferred to operators who are not financially capable of posting a performance bond.

While operators may protest the increased costs of implementing these recommendations, they need to understand that it is for their protection as well. The cost of implementing these recommendations are minimal compared to possible future litigation costs for improper handling of NORM. Regulations should provide adequate protection to the public, workers, landowners and the operators at the least possible cost.

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These recommendations are basic to many of the radioactive material rules adopted by TDH. Texas regulations on oil and gas NORM must be consistent with basic radiation protection principles and treated as the radioactive material that it is, instead of like other oil and gas waste. The RCT already has a huge backlog of abandoned wells and locations to deal with because of past inadequate regulations. The NORM problem will be no different unless adequate regulations are implemented.

The TRAB would be pleased to further advice to the staff of the Railroad Commission about specific issues of concern such as the ones mentioned in this letter. Please contact Earl Erdmann, Chair of the Waste and Industrial Committee (915/563-0891). We look forward to continuing to work together on developing sound radiation rules and policies for the state.

Sincerely,
Original signed by:

Michael Ford, C.H.P.
Chair

cc: Richard Ratliff, P.E.
Steve Seni, Ph.D.