

Exhibits and Materials:
Meeting with NRC Staff re
Intercontinental Energy Corp.
Request for Release of Sites

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TDH Lacks Authority to Treat Zamzow Materials as 11e.(2)

- NRC Agreement State Jurisdiction is Delineated by the Atomic Energy Act
- TDH's Interpretation of Byproduct Material is Inconsistent with NRC's Long-Standing Interpretation
- TDH's Position Regarding Soils Contaminated by Drill Cuttings, a Process /Predominant Restoration Water Combination or Restoration Water is Incorrect

NRC Agreement State Jurisdiction is Delineated by the AEA

- The AEA provides NRC authority to regulate enumerated radioactive materials.
- NRC regulatory requirements apply only to the enumerated materials.
 - No jurisdiction over traditional mining activities
- Proper interpretation of the definitions of source, special nuclear and byproduct material are critical in understanding the scope of authority granted by the AEA.

AEA Agreement States

- Texas is an Agreement State.
- Under the AEA, NRC may relinquish its authority to an Agreement State.
- Agreement State AEA authority is confined solely to that granted by the AEA.
- Texas' AEA Agreement State authority cannot extend to non-AEA materials by virtue of TDH's interpretation of statutory definitions that are inconsistent with NRC's interpretations.

TDH's Definition of 11e.(2) Byproduct Must Be Compatible with that of the NRC.

- NRC rejected TDH's 1993 definition of byproduct material because it was broader than the AEA definition.
 - TDH's broader definition could jeopardize transfer of sites to DOE.
 - TDH's definition frustrated NRC's ability to communicate with Agreement States according to a nationally accepted set of terms with a common understanding.

1993 Texas' Statutory Definition of Byproduct Material

- Byproduct material was defined as:
 - tailings or wastes produced by or resulting from the extraction or concentration of uranium or thorium from ore processed primarily for its source material content...*and other tailings having similar radiological characteristics.*

Tex. Health and Safety Code Ann. § 401.003(3) (emphasis added).

1993 Texas' Regulatory Definition of Byproduct Material

- Texas' regulatory definition went further than the statutory definition, broadening byproduct material to include "...other tailings (*or wastes*) having similar radiological characteristics."

TRCR § 11.2 (1993) (emphasis added)

NRC's Opinion of Texas' 1993 Byproduct Material Definition

The NRC's "finding that the Texas program is compatible with the NRC's program is being withheld because...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."

Letter from Richard L. Bangart, Office of State Programs, NRC to David R. Smith, Commissioner Texas Department of Health and Dan Pearson, Executive Director, Texas Natural Resource Conservation Commission, December 28, 1994

TNRCC Response

- As of June 14, 1995, TNRCC notified NRC that the need to change the definition of byproduct material had been recognized by the Texas legislature and that the issue would be addressed when the Texas legislature reconvened in January of 1997.

See Letter from Alice Hamilton Rogers, Manager, UIC, Uranium and Radioactive Waste Section, TNRCC to Richard L. Bangart, Office of State Programs, NRC, June 14, 1995.

1997 NRC Restates Need to Amend Definition of Byproduct Material

- “We recommend that you continue your effort to amend the statutory definitions” of “byproduct material” and “waste.”

Letter from Paul Lohaus, Office of State Programs, NRC to Alice Hamilton Rogers, Industrial and Hazardous Waste Division, TNRCC, February 11, 1997.

Texas Adopts NRC's Definition

- "By-product material" means: (A) a radioactive material, other than special nuclear material, that is produced in or made radioactive by exposure to radiation incident to the process of producing or using special nuclear material; and (B) tailings or wastes produced by or resulting from the extraction or concentration of uranium or thorium from ore processed primarily for its source material content, including discrete surface wastes resulting from uranium solution extraction processes.

Tex. Health and Safety Code Ann. § 401.003(3) *as amended by Acts 1997, 75th Leg., ch. 1338, Sec. 2, eff. June 20, 1997.*

TDH's Interpretation of 11e.(2) Byproduct Must Be Compatible with that of NRC.

- TDH cannot do by interpretation what it cannot do by statutory or regulatory definition.
- NRC has explained that the “definition [of 11e.(2)] does not confer regulatory jurisdiction over waste generated from other ISL activities not being conducted primarily for the extraction of uranium.”

NRC's Interpretation of Byproduct Material Definition

- “Essentially, any waste generated primarily as a result of the extraction of uranium from ore is defined as 11e.(2) byproduct material and subject to NRC regulation. This definition does *not* confer regulatory jurisdiction over waste *generated from other ISL activities not being conducted primarily for the extraction of uranium*. At ISLs, waste streams originated from either the processes associated primarily with the extraction of uranium, or processes associated with other aspects of facility operation such as ground-water restoration or normal operational support not related to uranium extraction....”

Letter from Joseph Holonich, Chief, Uranium Recovery Branch, NRC to Ruth McBurney, TDH, May 5, 1998 (emphasis added).

NRC and Mine Wastes

- “NRC has no direct authority over uranium mining or mine wastes.”

FGEIS vol. 2 at A-94.

- Drill cuttings in the ISL context are the equivalent of overburden in the conventional mining context-- it is material that must be removed in order to gain access to the ore body so that ore can be removed.
- NRC’s interpretation that wastes such as drill cuttings that are generated prior to the injection of lixiviant do not constitute 11.e(2) byproduct material is consistent with the Commission’s position that mining overburden cannot be regulated as 11e.(2) byproduct material.

NRC and Groundwater Restoration

- “Wastes from groundwater restoration is (sic) not generated primarily from the extraction of uranium and is (sic) considered a mine waste subject to state mining regulations at NRC-licensed sites....[and] [e]ffluent produced during groundwater restoration activities...may be defined as naturally occurring radioactive material or as technologically enhanced naturally occurring radioactive materials.”

Letter from Joseph Holonich, Chief, Uranium Recovery Branch, NRC to Ruth McBurney, TDH, May 5, 1998.

NRC Has Established a Predominance Test for Characterization of Commingled Wastes.

- Effluent from ISL production bleed constitutes 11e.(2) byproduct material.
- Effluent from groundwater restoration activities constitutes mine waste.
- Where process effluent and restoration effluent are commingled, the water is properly characterized according to which effluent is predominant.

NRC and the Predominance Rule Holding Pond

- “For the case where the holding pond commingled process wastewater and mine wastewater, the NRC staff has taken the position that it will view all residual material as 11e.(2) byproduct material if the pond held *predominantly process wastewater*.”

Letter from Joseph Holonich, Chief, Uranium Recovery Branch, NRC to Ruth McBurney, TDH, May 5, 1998.

NRC and the Predominance Rule

Spills and Leaks

- “Soils contaminated from spills and leaks of process wastewater or a mixture of [*predominantly*] process and mine wastewater are by definition 11e.(2) byproduct material, and would be subject to the cleanup requirements of Part 40, Appendix A, at NRC-licensed sites.”

Letter from Joseph Holonich, Chief, Uranium Recovery Branch, NRC to Ruth McBurney, TDH, May 5, 1998.

NRC and Predominance Rule Guidance Documents

- NRC Staff have indicated that soils and sludges that are contaminated with a mixture of process water and mine wastewater are to be regulated on the basis of the *predominate* source of the contamination.

See Response to Public Comments on Draft NUREG-1569: Standard Review Plan for In Situ Leach Uranium License Applications, Appendix D, Slide 1, February 23, 1998.

NRC's Attempted Clarification

- “Your letter referenced Draft NUREG-159: Standard Review plan for In Situ Leach Uranium License Applications, dated February 23, 1998. Staff has not published a final version of this draft NUREG. The guidance to Ms. McBurney, contained in Mr. Holonich’s letter, is the staff’s position.”

Letter from John J. Surmeir, Chief, Uranium Recovery and Low-Level Waste Branch, NRC, to Anthony J. Thompson, Shaw Pittman.

IEC's License

- TDH has argued that regardless of the definition of 11e.(2) byproduct material, IEC is bound to comply with the conditions contained in its license.
- Two of those license conditions were imposed under (and presumably are based upon) the Texas definition of byproduct material that the NRC required to be changed.
- These license conditions predate the State's promulgation of its own NORM regulations.

IEC License #L02538 Provision 24(A)

- Prior to release by the Agency, licensed areas shall be reclaimed to conditions which will allow unrestricted use consistent with its original use. Any soil exceeding the limits of 25 TAC § 289.202(ddd) shall be removed and disposed of as *byproduct*, unless alternative methods of disposal and/or processing are authorized, in writing by the Agency.

IEC License #L02538 Provision 25(E)

- Any material to be disposed of or released for unrestricted use which is *not identified as byproduct material* shall be surveyed for contamination if it has been associated with mining, production, field and/or laboratory testing of uranium, and/or reclamation activities.
Contamination shall not exceed limits specified by 25 TAC § 289.202(ddd) and/or (eee).

TDH: Attempting to Do by Interpretation What It Can't Do by Definition

- As demonstrated by the License Conditions cited, TDH's approach creates significant ambiguity and allows for arbitrary application of its regulations:
 - For example, TDH contradicts its own assertion that there can only be byproduct at a site. *See Comments of Gary Smith.*
 - If a site has byproduct material, then it must meet the 5/15 standard.
 - If a site has non-byproduct material that exceeds the 5/15 standard, what must it do?
 - TDH says, in effect, “Dispose of it *as* byproduct material.”
 - But, the material cannot go to an 11e.(2) facility.
 - Where *can* the materials go?

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF THE SECRETARY

STAFF PROPOSALS FOR URANIUM
RECOVERY REGULATORY ISSUES
SECY PAPERS 99-011, 99-012 AND 99-013

PUBLIC MEETING
Nuclear Regulatory Commission
Room 16-1F
One White Flint North
11555 Rockville Pike
Rockville, Maryland
Thursday, June 17, 1999

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COMMISSIONER MCGAFFIGAN: Just real quick, you are one of the states, in your role as a Texas official, that has an in situ leach facility. How close do your regulations currently follow whatever, you know, Part 40 and Appendix A to Part 40? Are you in front of in any sense in trying to rationalize this stuff for your regulation of your particular facilities?

DR. SMITH: I would say our regulations are pretty much word for word, although we have taken a position -- this 1995 change guidance from NRC sort of caught us by surprise. In Texas, the program had been at another agency for a while and then it came back to TDH, and during the interim was when these positions were taken by NRC. But prior to that, we had been very stringent in consideration of byproduct material as really being all the effluents to take care of spills that might happen in wellfields and looking at the facility itself where ion exchange occurs and the precipitation.

I think we are still in that mode somewhat. We don't see in our state anyone really looking at material that may be called mine waste, because when you get to restoration you still have quite a bit of radium-226 that was mobilized in the first place in the ore by -- in that fluid. You don't just magically say it is restoration fluid and suddenly you lose that problem.

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COMMISSIONER MCGAFFIGAN: So there is no mine waste, in your state, there is no mine waste classification that some agency deals with as mine waste? It is all 11e.(2)?

DR. SMITH: That's correct.

COMMISSIONER MCGAFFIGAN: Okay. Thank you.

CHAIRMAN JACKSON: Commissioner Merrifield.

COMMISSIONER MERRIFIELD: I have no questions.

CHAIRMAN JACKSON: With respect to alternative feed stock, is your definition of ore the same as what the staff's definition of ore is?

DR. SMITH: I think is fairly close. We would be looking at something that is sand-like, contaminated dirt, yes, ma'am.

CHAIRMAN JACKSON: Okay. Thank you. Thank you very much.

Mr. Sinclair.

TDH Recognized NORM at Lamprect Mine Site

- “[W]e agree with your conclusion that the material in question is not by-product material and therefore not subject to the rules regulating such material. Additionally we agree that the material is in fact NORM and subject to the rules regulating such material.”

Letter from Eugene Forrer, Chief, Uranium Licensing Project, TDH to W. R. Underdown, Intercontinental Energy Corporation, October 29, 1998.