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In the Matter of)
)
INTERNATIONAL URANIUM (USA))
CORPORATION)
(Request for Materials License Amendment))
_____)

Docket No. 40-8681-MLA-4

CLI-00-01

MEMORANDUM AND ORDER

I. Introduction

In this decision we review a Presiding Officer's Initial Decision, LBP-99-5, 49 NRC 107 (1999), which upheld a license amendment issued to the International Uranium (USA) Corporation ("IUSA"). The license amendment authorized IUSA to receive, process, and dispose of particular alternate feed material from Tonawanda, New York. The state of Utah challenges the license amendment and now on appeal seeks reversal of the Presiding Officer's decision. Envirocare of Utah, Inc., has filed an amicus curiae brief supporting Utah's challenge of the Presiding Officer's decision. The NRC staff and IUSA support the Presiding Officer's decision. We affirm the decision for the reasons we give below.

II. Background

IUSA owns and operates a uranium mill located at White Mesa, near Blanding, Utah. On May 8, 1998, IUSA submitted a request for a license amendment to allow it to receive and process approximately 25,000 dry tons of uranium-bearing material from the Ashland 2 Formerly Utilized Sites Remedial Action Program (FUSRAP) site, currently managed by the Army Corps of Engineers and located near Tonawanda, New York. ⁽¹⁾ The NRC granted the IUSA license amendment on June 23, 1998. Utah timely petitioned for leave to intervene in the license amendment proceeding. On September 1, 1998, the Presiding Officer admitted Utah as a party to the proceeding. See International Uranium (USA) Corporation (Receipt of Material from Tonawanda, New York), LBP-98-21, 48 NRC 137 (1998).

At issue in this proceeding is the Atomic Energy Act's definition of 11e.(2) material, defined by the statute as "the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content." 42 U.S.C. § 2014e (emphasis added). Utah interprets this to mean that the primary purpose for acquiring the ore must be an interest in processing the material to recover the uranium. Emphasizing that IUSA is being paid over four million dollars to receive the Ashland 2 material from the FUSRAP site, Utah argues that IUSA's interest in obtaining the material is "primarily for payment of a disposal fee" and not for recovering any uranium the material might contain. Utah's Appeal Brief (May 24, 1999) at 11.

Utah explains that the fee IUSA will receive for this transaction far exceeds the monetary value of the uranium which might be extracted from the material. Utah accordingly suggests that the "primary" reason IUSA is processing the material is so that it can be reclassified as 11e.(2) material and then disposed of at the IUSA mill site. See id. at 10.

In short, Utah argues that the NRC staff improperly granted this license amendment because IUSA is not processing the Ashland 2 material "primarily" to recover its relatively minimal uranium content, but rather to obtain the generous handling and disposal fee. Utah emphasizes that IUSA's license amendment application failed to adequately substantiate that the material was to be "processed primarily" for its uranium content. Utah insists upon "some objective documentation" to show that recovery of the uranium, not payment for disposal, was IUSA's primary interest behind the license amendment. See Utah's Reply to NRC Staff's and IUSA's Briefs (June 28, 1999) ("Utah's Reply Brief") at 10. Given the "wide disparity" between the fee IUSA will receive for taking and processing the material and the probable market value of the uranium that can be recovered, Utah claims that the "only reasonable conclusion" to be drawn is that the "primary purpose of applying for the license amendment was to receive a four million dollar disposal fee." Id. at 9-11.

In interpreting what is meant by § 11e.(2)'s requirement that ore be "processed primarily for its source material content," Utah relies heavily upon language in the NRC's "Final Revised Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores," 60 Fed. Reg. 49,296 (Sept. 22, 1995) ("Alternate Feed Guidance"). The Alternate Feed Guidance asks licensees to "certify" that the feed material will be "processed primarily for the recovery of uranium and for no other purpose." *Id.* at 49,297. The Guidance goes on to enumerate three possible ways a licensee can "justify" this certification that feed material is to be processed for source material. The three possible factors a licensee can cite are "financial considerations, high uranium feed content of the feed material, or other grounds." *Id.* Throughout this proceeding, the parties sharply have disputed the meaning of these and other statements in the Alternate Feed Guidance.

Utah, for instance, argues that the Guidance included a "Certification and Justification" test expressly to prohibit licensees from "using a uranium mill to process material for the primary purpose of ... [reclassifying] the material to allow it to be disposed of in the mill tailings impoundment." See Utah's Appeal Brief at 10,12. Utah claims that processing material merely for the sake of reclassifying it as 11e.(2) material is "sham processing," and that the wastes or mill tailings generated from such "sham processing" do not meet the definition of 11e.(2) byproduct material. See *id.* at 10-11. Utah concludes that IUSA "failed to justify and document under the Alternate Feed Guidance any satisfactory or plausible grounds to show that [IUSA] was not engaged in sham processing." *Id.* at 11.

In LBP-99-5, the Presiding Officer rejected Utah's arguments. "[O]re is processed primarily for its source material content," stated the Presiding Officer, "when the extraction of source material is the principal reason for *processing* the ore," regardless of any other reason behind the licensee's interest in acquiring the material or seeking the overall transaction. See 49 NRC at 109.

On the other hand, the Presiding Officer went on to explain, "[i]f ... the material were processed primarily to remove some other substances (vanadium, titanium, coal, etc.) and the extraction of uranium was incidental, then the processing would not fall within the statutory test and it would not be byproduct material within the meaning of the Atomic Energy Act. That is, the adverb 'primarily,' applies to what is removed from the material by the process and not to the motivation for undertaking the process." *Id.* (emphasis added). In the Presiding Officer's view, "the only 'sham' that stops material from being byproduct material is if it is not actually milled. If it is milled, then it is not a sham." *Id.* at 111 n.6.

The Presiding Officer found this interpretation of § 11e.(2) consistent with the language and legislative history of the Uranium Mill Tailings Radiation Control Act of 1978, as amended (UMTRCA). He went on to conclude that the staff appropriately granted the license amendment because IUSA "is milling ore" to extract uranium and therefore is "not involved in a sham." See *id.* at 113. The Presiding Officer also found that Utah had misunderstood the NRC Alternate Feed Guidance. He rejected Utah's claim that the Guidance was intended to prevent material from being categorized as 11e.(2) byproduct material if the licensee's primary economic motive was to receive a fee for waste disposal instead of to recover the uranium. *Id.* at 112. "The Alternate Feed Guidance," the Presiding Officer stated, "is not supportive of the position, taken by the State of Utah, that material is to be considered byproduct only if the primary economic motivation is to remove uranium rather than to dispose of waste." *Id.* Under LBP-99-5, then, the licensee's underlying motive or purpose for acquiring the material in the first place is irrelevant. What matters is that the material actually is processed through the mill to recover source material.

Both the NRC staff and IUSA endorse the Presiding Officer's conclusions. The staff explains that "the Presiding Officer properly applied the [alternate feed] guidance by focusing on whether the processing was primarily to extract uranium," regardless of any economic motivations involved. See NRC Staff Opposition to Utah Appeal of LBP-99-5 ("Staff Brief") (June 14, 1999) at 13 (emphasis added). The staff also stresses that "[n]either a high uranium content nor economic profitability is 'required' under the guidance," which provides three separate and alternative reasons a licensee can describe to support a proposed license amendment, including any number of reasons which might fall within the category of "other grounds." See *id.* Indeed, the staff argues, the definition of § 11e.(2) byproduct material should be broad enough to encompass those fuel cycle activities involving the processing of even low grade -- with relatively low concentration of uranium -- feedstock. *Id.* at 15. "Utah's attempt to require an economic motive test and to require detailed financial review should be rejected," the staff urges. *Id.*

Focusing upon UMTRCA's legislative history, IUSA similarly concludes that at issue is simply whether the tailings and wastes were "produced as part of the nuclear fuel cycle." See IUSA's Reply to Utah's Appeal Brief and Envirocare's Amicus Curiae Brief ("IUSA Brief") (June 14, 1999) at 9-10. According to IUSA, those tailings and waste from feeds processed to recover uranium outside of the nuclear fuel cycle, as in a secondary or side-stream process at a phosphate recovery operation, would not be 11e.(2) material because the actual processing was not [intended] primarily for the source material content. *Id.* But where there is a licensed uranium mill involved, "the *only* question to be answered," argues IUSA, "is whether it is reasonable to expect that the ore will, *in fact*, be processed for the extraction of uranium." *Id.* at 15.

While not adopting the Presiding Officer's reasoning in its entirety, the Commission affirms LBP-99-5, for the reasons given below.

III. Analysis

To clear away a threshold matter, we must briefly consider the NRC staff's claim that the Ashland 2 material already was § 11e.(2) byproduct material, even before it was sent to IUSA and even before it was processed. See Staff Brief at 8 n.11; 14 n.18; 15 n.19. The staff's theory derives from the Department of Energy's certification that the Ashland 2 material was the residue of a Manhattan Project uranium extraction project, and therefore constituted "tailings or waste produced by the extraction ... of uranium ... from ... ore processed primarily for its source material content" within the meaning of section 11e.(2). We find it unnecessary to reach the staff argument. Historically, the NRC has maintained that it lacks regulatory authority over uranium-bearing material, like the Ashland 2 material, generated at facilities not licensed on or after 1978

(when UMTRCA was passed). See United States Army Corps of Engineers, DD-99-7, 49 NRC 299, 307-08 (1999). Nothing in this opinion addresses the pre-1978 question or should be understood to do so. Instead, our opinion rests solely on section 11e.(2)'s "processed primarily for its source material content" clause.

On appeal, Utah finds the Presiding Officer's "first error" to have been that of having "resort[ed] to interpretation of the AEA and the legislative history of UMTRCA in searching for the meaning of 'primarily processed for.'" See Utah Appeal Brief at 11-12. Instead, Utah argues, the Presiding Officer should have focused only upon the NRC's Alternate Feed Guidance to discern how the § 11e.(2) definition is to be applied and met. *Id.* at 12. The Commission, however, agrees with the Presiding Officer that the § 11e.(2) definition, with its requirement that material be "primarily processed for its source material content," can only be properly understood within the context of UMTRCA and its legislative history.

Based on an in-depth review of UMTRCA and its legislative history, and of the Alternate Feed Guidance and its background documents, the Commission reaches several conclusions. To begin with, the Guidance does appear to contemplate an NRC staff inquiry into a licensee's motives for a license amendment, just as Utah suggests. The Guidance, for instance, expresses a "concern that wastes that would have to be disposed of as radioactive or mixed waste would be proposed for processing at a uranium mill primarily to be able to dispose of it in the tailings pile as 11e.(2) byproduct material." 60 Fed. Reg. 49,296, 49,297 (Sept. 22, 1995). The Guidance thus outlines possible "justifications" that a licensee may describe in support of the license application, and these are intended to assist the staff "[i]n determining whether the proposed processing is primarily for the source material content or for the disposal of waste." *Id.* Indeed, the requirement of a licensee "justification" apparently stemmed from a 1993 Presiding Officer decision which questioned, in another proceeding, whether a simple licensee "certification, without more, would adequately protect against ulterior motives to dispose of waste." See *UMETCO Minerals Corp.*, LBP-93-7, 37 NRC 267, 283 (1993)(emphasis added).

Such statements do not support the NRC staff's current view that under the Guidance all that matters is that processing for uranium was intended, regardless of underlying motive. On the contrary, the statements in both the proposed and final Guidance take as a given that processing for uranium content will take place, but also indicate that such processing should not be employed simply as a device to reclassify material to enable it to be disposed of -- as 11e.(2) byproduct material -- at a uranium mill site.⁽²⁾ As Utah has maintained, therefore, the Alternate Feed Guidance certainly can be understood -- and is perhaps best understood -- as reflecting an intent to prevent material from being categorized as 11e.(2) byproduct material when the licensee's overriding economic motive is to receive a fee for waste disposal.

Yet, although the drafters of the Guidance apparently intended to distinguish between those license amendment requests where the licensee's overriding interest is obtaining uranium and those where payment for disposal is driving the transaction, the NRC staff apparently has not consistently utilized the Guidance in this way. While the language of the Guidance may suggest that a licensee's motivations are to be scrutinized, parsed, and weighed, the NRC staff typically has not relied upon such probing reviews of licensee motives. It has not been the staff's practice, for example, to require licensees essentially to "prove" quantitatively or otherwise that the value of the uranium to be recovered from a particular licensing action will outweigh other economic reasons for the transaction. See, e.g., *UMETCO*, 37 NRC at 274, 281-82; Staff Brief at 15-16. Since the Guidance was first issued, it seems, there has been little connection between what the Guidance seemingly proposes and what the staff in reality has required.

This fact has prompted the Commission on this appeal to take an in-depth look at the Guidance and its policy ramifications. We find that the apparent intent in the Guidance to have the staff scrutinize the motives behind the license amendment transaction is neither compelled by the statutory language or history of UMTRCA nor reflects sound policy. Our review of UMTRCA and its legislative history confirms the Presiding Officer's conclusion that the requirement that material be "processed primarily for its source material content" most logically refers to the actual act of processing for uranium or thorium within the course of the nuclear fuel cycle, and does not bear upon any other underlying or "hidden" issues that might be driving the overall transaction.

As we describe in further detail below, the purposes behind the wording of § 11e.(2)'s definition served: (1) to expand the types of materials that properly could be classified as byproduct material; (2) to make clear that even feedstock containing less than 0.05% source material could qualify as byproduct material; and (3) to assure that the NRC's jurisdiction did not cross over into activities unrelated to the nuclear fuel cycle. The IUSA license amendment is consistent with these statutory intentions, regardless of whether IUSA's bigger interest was payment for taking the material or payment for the recovered uranium. Indeed, even accepting Utah's claim that the four million dollar payment IUSA contracted to receive for processing and disposing of the Ashland 2 FUSRAP site material was the primary motivator for this transaction, the tailings generated from the processing can still properly be classified as § 11e.(2) byproduct material.

UMTRCA's Purposes and History

It may be helpful to outline a little of UMTRCA's legislative history and, in particular, how the § 11e.(2) definition came about. UMTRCA had two general goals: (1) providing a remedial- action program to stabilize and control mill tailings at various identified inactive mill sites, and (2) assuring the adequate regulation of mill tailings at active mill sites, both during processing and after operations ceased. As then Chairman Hendrie of the NRC explained to Congress, the agency at the time did not have direct regulatory control over uranium mill tailings. The tailings themselves were not source material and did not fall into any other category of NRC licensable material. The NRC exercised some control over tailings, but only indirectly as part of the Commission's licensing of ongoing milling operations. Once operations ceased, however, the NRC had no further jurisdiction over tailings. This resulted in dozens of abandoned or "orphaned" mill tailings piles.

To prevent future abandoned and unregulated tailings piles, Congress enacted the 11e.(2) definition, which expressly declared mill tailings to be a form of byproduct material. As Chairman Hendrie explained, tailings are "fairly regarded as waste materials from the milling operation," but the proposed definition would classify them as byproduct material and thus make them licensable under the AEA. Under the new § 11e.(2) definition, Chairman Hendrie emphasized, tailings generated during uranium milling operations would "formally be byproducts rather than waste." Uranium Mill Tailings Radiation Control Act of 1978, Hearings on H.R. 11698, H.R. 12229, H.R. 12938, H.R. 12535, H.R. 13049, and H.R. 13650, (hereinafter "UMTRCA Hearings I") Subcomm. On Energy & Power, House Comm. On Interstate & Foreign Commerce, 95th Cong. 2nd Sess. at 400 (1978)(statement of Joseph M. Hendrie, Chairman, NRC).

At the time Congress drafted UMTRCA, the Environmental Protection Agency had some authority over uranium mill tailings under the Resource Conservation and Recovery Act of 1976 (RCRA), but EPA had no authority over the milling process which generated the tailings. By defining mill tailings as a byproduct material, the new 11e.(2) definition removed mill tailings from RCRA's coverage since RCRA excludes all source, byproduct, and special nuclear material. This exclusion from RCRA was intended to minimize any "dual regulation" of tailings by both EPA and the NRC. Chairman Hendrie suggested that since the NRC already regulated the site-specific details of uranium milling, it seemed logical for the NRC to regulate the treatment and disposal of tailings "which we permitted to be generated in the first place." Id. at 342-43.

From the legislative history, we can glean a few conclusions about the actual wording of the 11e.(2) definition. As originally proposed, the definition of 11e.(2) byproduct material was directly linked to the Commission's definition of source material. The original definition referred to "the naturally occurring daughters of uranium and thorium found in the tailings or wastes produced by the extraction or concentration of uranium or thorium from source material as defined in [then] Section 11z.(2)." But Chairman Hendrie was concerned that a definition of byproduct material that was linked to that of source material would exclude ores containing 0.05% or less of uranium or thorium. (3) He proposed that the language be revised to "from any ore processed primarily for its source material content." His discussion with Congressman Dingell went as follows:

Mr. Hendrie: The Commission is informed that there are a few mills currently using feedstock of less than 0.05 percent uranium. As high grade ores become scarcer, there may be a greater incentive in the future to turn to such low grade materials.

Since such operations should be covered by any regulatory regime over mill tailings, the Commission would suggest that the definition of byproduct material in H.R. 13382 be revised to include tailings produced by extraction of uranium or thorium from any ore processed primarily for its source material content.

Mr. Dingell: I am curious why you include in that the word "processed" primarily for source material content. There are other ores that are being processed that do contain thorium and uranium in amounts and I assume equal in value to those you are discussing here. Is there any reason why we ought not to give you the same authority with regard to those ores?

Mr. Hendrie: The intent of the language is to keep NRC's regulatory authority primarily in the field of the nuclear fuel cycle. Not to extend this out into such things as phosphate mining and perhaps even limestone mining which are operations that do disturb the radium-bearing crust of the Earth and produce some exposures but those other activities are not connected with the nuclear fuel cycle.

UMTRCA Hearings I at 343-44.

There were, therefore, two principal intentions behind Chairman Hendrie's proposed language, which Congress accepted. First, the 11e.(2) definition was intended to reach even "low grade" feedstock with less than a 0.05% concentration of uranium. Second, the definition was intended to make sure that the NRC's jurisdiction did not expand into areas not traditionally part of the NRC's control over the "nuclear fuel cycle." The definition therefore "focuses upon uranium milling wastes" and not, for example, upon the wastes from phosphate ore processing which are also contaminated with small quantities of radioactive elements. Id. at 354 ("Section by Section Analysis of H.R. 13382 As Revised by NRC Recommended Language Changes"). Similarly, 11e.(2) material was not to encompass uranium mining wastes because, as Chairman Hendrie explained, "[w]e don't regulate mines. The mining is regulated by the Department of Labor under other regulations so our definition was drawn to maintain that and to keep us out of the mine-regulating business." Id. at 401.

We find, then, that the § 11e.(2) definition focused upon whether the process generating the wastes was uranium milling within the course of the nuclear fuel cycle. As Chairman Hendrie made clear, the concentration of the uranium or thorium in the feedstock was not a determinative factor in whether the resulting tailings should be considered 11e.(2) material. The focus was not on the value of the extracted uranium but on the activity involved.

In short, the § 11e.(2) definition focuses upon the process that generated the radioactive wastes -- the removal of uranium or thorium as part of the nuclear fuel cycle. See *Kerr-McGee Chemical Corp. v. NRC*, 903 F.2d 1, 7 (D.C. Cir. 1990). But UMTRCA does not require that the market value of the uranium recovered be the licensee's predominant interest, and thus UMTRCA does not require the NRC to assure that no other incentives lie behind the licensee's interest in processing material for uranium. There simply is no reason under UMTRCA why licensees cannot have several motives for a transaction. (4) That IUSA's primary goal here may have been the four million dollar payment for disposal, instead of potential profit from any recoverable uranium, does not in and of itself prevent the tailings generated from the milling process from falling within the § 11e.(2) definition. Moreover, as we touch upon further below, making such purely economic considerations a determinative

part of the staff's review would unnecessarily divert agency resources to issues unrelated to public health and safety.

The Need for Revising the Guidance

In this litigation, Utah and the other parties focused not upon UMTRCA and its legislative history, but upon the NRC's Alternative Feed Guidance. The Commission, however, is not bound by the Guidance. Like NRC NUREGS and Regulatory Guides, NRC Guidance documents are routine agency policy pronouncements that do not carry the binding effect of regulations. See, e.g., Curators of the University of Missouri, CLI-95-1, 41 NRC 71, 149 (1995); International Uranium (USA) Corp. (White Mesa Uranium Mill), LBP-97-12, 46 NRC 1, 2 (1997) (referring specifically to final Alternate Feed Guidance as "non-binding Staff guidance"). Such guidance documents merely constitute NRC staff advice on one or more possible methods licensees may use to meet particular regulatory requirements. See, e.g., The Curators of the University of Missouri, CLI-95-1, 41 NRC 71, 150 & n.121 (1995); Petition for Emergency and Remedial Action, CLI-78-6, 7 NRC 400, 406-07 (1978); Consumers Power Co. (Big Rock Point Nuclear Plant), ALAB-725, 17 NRC 562, 568 n.10 (1983); Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-74-40, 8 AEC 809, 811 (1974). These guides, however, do not themselves have the force of regulations for they do not impose any additional legal requirements upon licensees. Licensees remain free to use other means to accomplish the same regulatory objectives. See id. "[A]gency interpretations and policies are not 'carved in stone' but rather must be subject to re-evaluations of their wisdom on a continuing basis." Kansas Gas & Elec. Co. (Wolf Creek Generating Station, Unit 1), 49 NRC 441, 460 (1999) (referencing *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 863-64).

Accordingly, it has long been an established principle of administrative law that an agency is free to choose among permissible interpretations of its governing statute, and that at times new interpretations may represent a sharp shift from prior agency views or pronouncements. *Chevron*, 467 U.S. at 842-43, 862 (1984). This is permissible so long as the agency gives "adequate reasons for changing course." *Envirocare of Utah v. NRC*, F.3d , No. 98-1426 (D.C. Cir., Oct. 22, 1999), slip op. at 6. Given that: (1) the disputed portions of the Alternate Feed Guidance are not derived directly from UMTRCA or its history; (2) the Guidance apparently has not been consistently applied in the manner proposed by the State of Utah; (3) the precise terms of the Guidance are not entirely clear (c.f., e.g., "other grounds"); and (4) the Commission believes that literal adherence to the apparent intent of the Guidance would lead to unsound policy results, the Commission declines to follow it here and will require the NRC staff to revise it as soon as practicable. ⁽⁵⁾

Several policy reasons support departing from the Guidance. First, the NRC's statutory mission is public health and safety. Our regulations establish comprehensive criteria for the possession and disposal of 11e.(2) byproduct material under NRC or Agreement State jurisdiction. See 10 C.F.R. Part 40, Appendix A. The criteria were designed to assure the safe disposal of bulk material whose primary radiological contamination is uranium, thorium, and radium in low concentrations. But whether the concentration of uranium in the feedstock material is .058% or .008% -- the initial high and low estimates, respectively, of the Ashland 2 material based upon samples taken -- has no impact upon the general applicability and adequacy of the agency's health and safety standards for disposal of § 11e.(2) material. Yet, in Utah's view, whether the actual uranium concentration proved to be .058% or .008% could well dictate whether the resulting tailings appropriately could be classified as § 11e.(2) material and regulated by the NRC.

Utah's interpretation thus divides byproduct material into two different regulatory camps based solely upon market-oriented factors, i.e., the expected profit from selling recovered uranium versus any other economically advantageous aspects of the license amendment. Utah emphasizes, for example, that it "has not objected to several [IUSA] alternate feed license amendment requests where the waste material contained [greater amounts] of uranium." See Utah's Petition for Review of LBP-99-5 (Feb. 26, 1999) at 9 n.10. From a health and safety perspective, though, there is no reason to prohibit IUSA from disposing of tailings material in its disposal cells solely on account of the feedstock having a lower uranium concentration or lower market value. Cf. *Kerr-McGee*, 903 F.2 at 7-8.

Second, the Guidance, if applied as originally intended, would cast the NRC staff into an inappropriate role, conducting potentially multi-faceted inquiries into the financial attractiveness of transactions. The staff essentially would need to look behind and verify every assertion about the economic factors motivating a proposed processing of material -- an unnecessary and wasteful use of limited agency resources, at a time when the Commission increasingly has moved away from performing economics-oriented reviews that have no direct bearing on safety and are not specifically required by Congress. ⁽⁶⁾

In addition, the NRC seeks to regulate efficiently, imposing the least amount of burdens necessary to carry out our public health and safety mission. Yet, as this proceeding itself demonstrates, the Alternate Feed Guidance's unwieldy "Certification and Justification" test lends itself easily to protracted disputes among the NRC staff, intervenors, and the licensee over such issues as how much the licensee will "really" profit from selling recovered uranium, what the licensee's "bigger" motives may be, etc. All this effort and attention imposes burdens on the parties while detracting from our central mission -- radiological safety, i.e., assuring that there are no constituents in the alternate feed material that would prevent the mill from complying with all applicable NRC health and safety regulations.

Nor is it inconceivable that eventual potential changes in the marketplace could impact whether particular material might fall within the § 11e.(2) definition one year but not the next, merely on account of some new market factor. Purely economic factors, in short, should not determine how radioactive material is defined. Whether IUSA was paid a "substantial sum," as Utah emphasizes, a nominal sum, or had to pay a sum to acquire the Ashland 2 material has no bearing on health and safety issues. Therefore, this is not appropriately the Commission's concern and also should have no bearing on whether the resulting tailings meet the statutory definition of byproduct material under § 11e.(2).

While it may be true, as Utah states, that when Congress enacted UMTRCA there was no "thought of using offsite active uranium mills to process and dispose of industrial cleanup waste from FUSRAP sites," Utah's Reply Brief at 5, several Congressmen did express an interest in having private corporations take and reprocess materials as a means to offset the federal government's ultimate disposal costs for cleaning up UMTRCA's designated Title I sites. See, e.g., UMTRCA Hearings on H.R. 13382, H.R. 12938, H.R. 12535, and H.R. 13049 ("UMTRCA Hearings II") Subcomm. On Energy & the Environment, House Comm. On Interior & Insular Affairs (1978) at 82 (statement of Rep. Weaver)(some "companies might be interested in sharing the cost of stabilization of tailings in return for access to minerals remaining in the piles").⁽⁷⁾ Then Chairman Hendrie voiced no objection, stating that "[i]f they want to reprocess the piling to make a complete recovery of the resource there, I think that is fine from a conservation standpoint. It also puts them back in the active business of milling." See UMTRCA Hearings II at 82.

Here, the Ashland 2 material has been approved for processing and disposal, and the resulting byproduct material will be disposed of pursuant to the same health and safety standards that apply to any other 11e.(2) material in an NRC-licensed mill: 10 C.F.R. Part 40, Appendix A. Though Utah may be dissatisfied with those standards, an adjudicatory proceeding is not the appropriate forum to contest generic NRC requirements or regulations. See, e.g., Duke Energy Corporation (Oconee Nuclear Station, Units 1, 3, and 3), CLI-99-11, 49 NRC 328, 334 (1999).

We note, additionally, that early in the proceeding Utah expressed concern that the Ashland 2 material, contrary to the NRC staff's findings, possibly contained listed hazardous waste. But while the accuracy of the license application can appropriately be the subject of an adjudication, notwithstanding staff findings, here subsequent events have rendered Utah's hazardous waste concern moot. Following negotiations with IUSA and, after analyzing investigations and data from the Ashland 2 site, Utah formally withdrew its allegation that the Ashland 2 material may contain listed hazardous waste. See Utah's Appeal Brief at 3 n.2. Instead, although Utah is upset that the staff's allegedly "scanty" review took only "about six weeks," its own review failed to uncover any errors in the staff's conclusion that the material contains no listed hazardous waste. Utah's remaining generalized complaint about how the staff reached its conclusion is not a litigable issue, given that Utah now concurs with the staff's conclusion and no longer alleges the presence of any listed hazardous waste.

Nevertheless, such disputes about the presence of hazardous waste are likely to recur, and the issue is a significant one, implicating three concerns: (1) possible health and safety issues, (2) the potential for an undesirable, complex NRC-EPA "dual regulation" of the same tailings impoundment, and (3) the potential for jeopardizing the ultimate transfer of the tailings pile to the U.S. government, for perpetual custody and maintenance. See generally UMTRCA, Title II, § 202 (Section 83 of the AEA). In view of our decision that the Alternate Feed Guidance requires revision to reflect our decision on the 11e.(2) definition, we will direct the staff to consider whether the Guidance also should be revised to include more definitive and objective requirements or tests to assure that listed hazardous or toxic waste is not present in the proposed feed material. We note, for example, that in a recent license amendment proceeding, the Presiding Officer declared it simply "impossible" for him to "ascertain the basis for the Staff determination that this material is not hazardous." International Uranium (USA) Corp. (White Mesa Uranium Mill), LBP-97-12, 46 NRC 1, 5 (1997). Similarly, in another earlier proceeding, the Presiding Officer found that the "Staff's new guidance for determining whether feed material is a mixed [or hazardous] waste appears confusing," and accordingly suggested there be more "specific protocols ... to determine if alternate feed materials contain hazardous components." UMETCO, 37 NRC at 280-81. The Commission concludes that this issue warrants further staff refinement and standardization.

In conclusion, applying the Commission's statutory interpretation of § 11e.(2) byproduct material, the Commission finds that the IUSA license amendment properly was issued and that the mill tailings at issue do constitute § 11e.(2) byproduct material. From the information in the record, we believe that it was reasonable for the NRC staff to have concluded that: (1) processing would take place, and (2) uranium would be recovered from the ore. Utah itself has acknowledged that "[i]n three different estimates, taken from DOE documents, the average uranium content of the material ranged from a high of 0.058% to a low of 0.008%." See Utah's Appeal Brief at 4; see also Utah's Brief in Opposition to IUSA's License Amendment (Dec. 7, 1998)("Utah's Brief in Opposition") at 8, and Attachment at 7-8. Utah's own expert estimated that up to \$617,000 worth of uranium might be recovered from the Ashland 2 material. See Utah's Brief in Opposition at 8, and Attachment at 9. Utah's primary argument all along has been that the monetary value of the recovered uranium would be much lower than the 4 million dollar payment IUSA would receive, not that no source material would be recovered through processing. See, e.g., *id.*, Attachment at 9 (where Utah's expert stressed that the value of the uranium-238 that could be extracted from the Ashland 2 material "represents a fraction (1.6 to 15 percent) of the \$4,050,000 that [IUSA] will receive from Material Handling & Disposal Services fees"); Utah's Reply Brief at 11 (the "disposal fee received by [IUSA] ... is almost 60 times the value of the uranium recovery").

Not only was it reasonable to conclude that uranium could be recovered from the Ashland 2 material, but it was also reasonable to conclude that the processing would indeed take place. IUSA had a contractual commitment to do so; its contract with the Army Corps of Engineers required IUSA to process the material prior to disposal. See IUSA Brief at 18, 25. In addition, as the Presiding Officer noted, "IUSA has a history of successfully extracting uranium from alternate feed material and has developed credibility with the NRC ... for fulfilling its proposals to recover uranium from alternate feeds." 49 NRC at 112. This was not an instance, then, where there was no reasonable expectation that the mill operator would in fact process material through the mill to extract recoverable uranium. Moreover, it is also the Commission's understanding that the Ashland 2 material has in fact been processed in the IUSA mill and that approximately 8,000 pounds of uranium were extracted. While that quantity of uranium was on the low end of IUSA's estimates, it nevertheless represents more than a minute or negligible recovery of uranium.⁽⁸⁾

The Commission concludes, therefore, that the Presiding Officer's interpretation of the § 11e.(2) definition reflects a sensible

reading of the UMTRCA statute and legislative history -- one we hereby embrace -- and that the record overall supports the issuance of the license amendment.

III. Conclusion

For the foregoing reasons, LBP-99-5 is affirmed.

IT IS SO ORDERED.

For the Commission

[original signed by]

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 10th day of February, 2000.

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1. IUSA made a similar request to receive, process, and dispose of uranium-bearing material from the nearby Ashland 1 and Seaway Area D FUSRAP sites. That license amendment is the subject of a separate NRC adjudicatory proceeding (Docket No. 40-8681-MLA-5) currently held in abeyance pending the outcome of this appeal.
 2. In fact, when the Guidance was first proposed, there was a description of how owners of low-level or mixed waste, facing the high costs of disposal, might find it "very attractive" to "pay a mill operator substantially less to process [the material] for its uranium content and dispose of the resulting 11e.(2) material," rather than to pay for disposal at a low-level or mixed waste facility. See "Uranium Mill Facilities, Request for Public Comments on Guidance on the Use of Uranium Mill Feed Materials Other Than Natural Ores," 57 Fed. Reg. 20,525, 20,533 (May 13, 1992) ("Proposed Guidance"). The Proposed Guidance labeled such transactions "sham disposals," and implied they "would not meet the definition of 11e.(2) byproduct material." Id. at 20,533.
 3. "Source material" has been defined by the Commission to exclude ores containing less than 0.05% of uranium or thorium. 10 C.F.R. § 40.4.
 4. See also, e.g. Kerr-McGee, 903 F.2d at 7 (where the court suggested that the word "primarily" in the § 11e.(2) definition could be read to mean "substantially," and thus the tailings from the coproduction of source material and rare earths could still be deemed 11e.(2) byproduct material so long as one of the reasons for processing the ore was for extracting source material). The court's reasoning in Kerr-McGee is consistent with the UMTRCA history, which reflects that it has long been the case, for instance, that both vanadium and uranium might be extracted during a processing of material, and indeed that the amount of recoverable vanadium may very likely be much greater than that of the recoverable uranium. See, e.g., UMTRCA Hearings I at 155 (where private company reprocessing material was extracting 2 ½ pounds of vanadium for every ½ pound of uranium extracted); see also UMTRCA Hearings III at 136 ("We recover ... about 1,000 pounds a day of uranium, about 4,000 pounds of vanadium"). There was never any suggestion in the legislative history that if the amount or value of the vanadium proved higher than that of the uranium, the tailings could not be categorized as 11e.(2) byproduct material.
 5. The Commission has promulgated no regulation implementing the Guidance. Thus, the Commission's rejection of the Guidance does not present a situation where the Commission has altered "suddenly and sub silentio settled interpretations of its own regulations." Natural Resources Defense Council, Inc. v. NRC, 695 F.2d 623, 625 (D.C. Cir. 1982). See generally Syncor Int'l Corp. v. Shalala, 127 F.3d 90 (D.C. Cir. 1997); Paralyzed Veterans of America v. D.C. Arena L.P., 117 F.3d 579 (1997), cert. denied, 523 U.S. 1003 (1998); United Technologies Corp. v. EPA, 821 F.2d 714 (D.C. Cir. 1987).
 6. See, e.g., Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,484 (June 5, 1996); Kansas Gas & Elec. Co. (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441 (1999).
 7. See also, e.g., UMTRCA Hearings 1 at 89-90 (written statement of Rep. Johnson); Hearings On S.3008, S.3078, and S.3253 ("UMTRCA Hearings III") Subcomm. On Energy Prod. & Supply, Senate Comm. On Energy & Natural Resources (1978) at 59 (statement of Sen. Haskell)(if private companies reprocessed some of the tailings, that would be regulated under the NRC's regulations).
 8. Moreover, even if we had adhered to and sought to apply the Guidance's tests for licensee "motives," the record does not show that IUSA processed the Ashland 2 material as a means to change non-11e.(2) material into § 11e.(2) material. IUSA was aware that the NRC staff had accepted a DOE certification declaring that the Ashland 2 FUSRAP material met the 11e.(2) byproduct material definition. Based upon the DOE certification, the staff had concluded that "the material could be disposed of directly in the White Mesa tailings impoundments," without any need of processing at the mill. See Technical Evaluation Report at 6, attached to Amendment 6 to Source Material License Sua-1358 (June 23, 1998). The staff thus claims that "sham disposal" was not a concern "since it did not appear that the material was being processed to change its legal definition, and as such was truly being processed for its uranium content." See Staff Aff. of Joseph Holonich at 7. Whether the Ashland 2 material actually already was § 11e.(2) byproduct material under UMTRCA remains unclear. See supra at 6-7. Nevertheless,

IUSA was aware that DOE, the Army Corps of Engineers, and the NRC staff all had categorized the material as such, and that the staff indeed had stated that this was material that could have been disposed of without any further processing. This suggests that IUSA had a genuine interest in processing the material for the uranium and not simply an interest in "reclassifying" the material by processing it. The subtle and complex nature of this inquiry, however, reinforces our view that discerning a licensee's motives for a license amendment transaction is a difficult, virtually impossible and, in any event, unnecessary exercise. Accordingly, our approach in this decision rejects ultimate business motivations as irrelevant to the § 11e.(2) definition.