



# State of Utah

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40-8681

October 26, 2001

Mr. Melvyn Leach  
Chief, Fuel Cycle Licensing Branch  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Re: September 21, 2001 NRC Draft Environmental Assessment Regarding Maywood New Jersey FUSRAP Site: IUC White Mesa Uranium Mill Near Blanding, Utah.

Dear Mr. Leach:

We have received your September 21, 2001 request for consultation, referenced above. We have also received copies of the June 15, 2001, June 22, 2001 and the August 3, 2001 International Uranium Corporation (IUC) license amendment requests regarding the proposed Alternative Feedstock (AF) from the Maywood, New Jersey Superfund site. After coordination with the Utah Division of Solid and Hazardous Waste (DSHW), we provide you the following comments regarding the Draft Environmental Assessment (EA):

1. Evaluation of RCRA Listed Wastes – DSHW review of the IUC submittals shows the evaluation of the presence of RCRA listed wastes at the Maywood site is incomplete. As a result we are unable to conclude that IUC has adequately followed the November 22, 1999 Listed Hazardous Waste Protocol previously agreed to.

The June 22, 2001 IUC submittal includes a June 15, 2001 technical memorandum by Ms. Je Ann Tischler, IUC consultant. In the Tischler memorandum, the Maywood site wastes are categorized into four (4) groups, including: 1) Stepan Chemical Company wastes, 2) the Maywood Interim Storage Site (MISS), 3) Residential Vicinity Properties, and 4) Commercial/Government (C/G) Vicinity Properties. Our concerns rest with this last category of wastes at the Maywood site, which comprise 27 different C/G properties in the Maywood area. An adequate evaluation of the presence of listed RCRA waste will consider the history, activities, and industrial processes used on each of the C/G Vicinity Properties.

Unfortunately, the Tischler memorandum simplifies its description of the C/G Vicinity Properties by grouping them all into one general category. No information was provided on an individual property level; which is necessary in order to determine if listed RCRA wastes

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once existed at these locations. Some of these C/G Vicinity Properties include the following (see [www.fusrapmaywood.com/Docs/ARWebIndex.asp](http://www.fusrapmaywood.com/Docs/ARWebIndex.asp)):

- Sears Distribution Center Property,
- New Jersey Vehicle Inspection Station, Property
- Flint Ink (80 Industrial Road) Property
- Gulf Station Property
- NY SUSQ & West Railroad Property
- Bergen Cable Property
- Former Fed Ex Property
- Sunoco Station Property
- ~~Sears Service Center Property~~

As a result, it appears that the potential exists for listed RCRA wastes to have been present on some of the C/G Vicinity Properties in question. In order to adequately resolve this issue, IUC must individually evaluate each of the C/G Vicinity properties.

2. Wording in Section 1.3 – the last paragraph on the first page of the Draft EA is incomplete as the last sentence is unfinished, as follows: “The material is currently located in three pits and is also”. The Draft EA should be revised to complete the description of the Maywood site.
3. Disposal Capacity Evaluation – an evaluation of the impact of the proposed 600,000 yd<sup>3</sup> of Maywood AF on the disposal capacity currently available at the IUC facility was not conducted in the Draft EA. We recognize that IUC Cells 2 and 3 are nearly full, and a significant amount of AF has already accumulated on the ore storage area that has yet to be processed and disposed. In addition, the NRC approved IUC reclamation plan and reclamation bond call for reserve disposal capacity in the tailings cells for disposal of demolition debris and contaminated soils from the mill site facilities. Consequently, the disposal capacity for these needs and the proposed Maywood AF material is an important question for the future operation of the site. Currently, it is unclear if sufficient capacity is available at the IUC facility to meet these needs and adequately dispose of the new Maywood AF material.
4. White Mesa Hydrostratigraphy – the last paragraph in Section 2.0 explains that groundwater at the site is found in three strata, including the Dakota Sandstone. However, the Dakota Sandstone is unsaturated at the White Mesa facility, and cannot be considered an aquifer at the IUC site. The Draft EA should be revised accordingly.
5. Groundwater Withdrawal Wells: Perched Aquifer – Section 2.0 of the Draft EA states ... “No wells are completed within the perched groundwater of the Burro Canyon formation within five miles downgradient of the site.” Contrary to this statement, and IUC consultant has reported two (2) wells to be located within 1 mile of the facility, the Jet Pump and Jones Wells (see 7/94 Titan Environmental Report, Figure 2.1). No information has been provided by IUC to the Utah Division of Radiation Control (DRC) to document plugging and

abandonment of these wells. Consequently, these wells should be considered as potential routes of exposure to the public until shown otherwise.

6. RCRA Listed Waste Evaluation: Missing Contaminants – the June 15, 2001 Tischler memorandum included an evaluation of the types of contaminants found in soils at the Maywood Site, and their status as listed RCRA wastes. DRC review of the September 17, 1990 Maywood Site Federal Facilities Agreement (FFA) between the U.S. Environmental Protection Agency and the U.S. Department of Energy shows that a number of contaminants were omitted from the June 15, 2001 Tischler evaluation, including (see <http://www.em.doe.gov/ffaa/maycercl.html>):

- A. Volatile Organic Compounds (VOCs) – including: methylene chloride, acetone, and ethylbenzene in the ppm range. Various methylated benzenes were also detected in some soil samples.
- B. 10 Pesticides – including: dieldrin, lindane, endosulfan I, endosulfan sulfate, aldrin, alpha BHC, beta BHC, DDE, DDD, and DDT measured at up to several hundred ppb.

Consequently, the June 15, 2001 Tischler evaluation for listed RCRA wastes should be amended to include these organic contaminants previously omitted.

7. Missing Groundwater Monitoring Parameters Evaluation – currently the IUC facility monitors groundwater quality in the perched aquifer for only four (4) inorganic parameters: chloride, potassium, nickel, and uranium. No groundwater quality monitoring is currently required by the NRC license for any organic contaminant. Review of the June 15, 2001 Tischler memorandum and the September 17, 1990 FFA shows that several new contaminants will be added to the uranium tailings cells at the White Mesa facility, that do not currently appear in common 11e.(2) waste, including, but not limited to:

- A. Omitted VOC Compounds – including those cited above, and benzene, chloroform, toluene, trichloroethylene (TCE), and xylene, and
- B. Several New Metals – including several metals not commonly found in thorium or uranium ores, including: antimony, barium, beryllium, boron, cadmium, chromium, lithium, thallium, and zinc.

In order to protect local groundwater quality, the IUC should provide a new evaluation of the groundwater detection monitoring parameters to determine if any of these new contaminants are as mobile or more mobile than the currently required parameters. In the event that any new contaminant is found to be equally or more mobile in local groundwater, these parameters should be added to the required NRC monitoring program for White Mesa groundwater.

8. Changes Needed to Reclamation Plan: Ore Storage Pad Decontamination – currently any AF that arrives on site is stored on the unlined ore storage pad located East of the mill. Currently, the IUC reclamation plan calls for the foundation soils under this storage area to undergo radiologic survey to determine the minimum volumes of soil to be excavated and moved to the tailings cells in an effort to clean close the storage pad area. Due to the presence of the new non-radiologic contaminants currently stored and to be stored in this area, and the potential that many of these new contaminants are more mobile than the uranium or thorium decay series; the current reclamation plan should be revised to require sampling and analysis of all new AF contaminants, including organic compounds. The purpose of this revised soil survey is to ensure that these pollutants are adequately excavated and controlled by proper disposal in the tailings cells at the time of mill site closure.
9. Changes to Maywood AF Material Sampling Needed – the August 3, 2001 IUC submittal included an August 2, 2001 technical memorandum by Senes Consultants Limited (SCL). In this submittal IUC proposes a minimum level of uranium-238 that will be found in the Maywood AF material to be shipped to White Mesa, 0.01%. As proposed, AF material with lower uranium-238 concentrations will not be shipped to White Mesa for processing. Review of these submittals has produced the following concerns that should be addressed before NRC approval of the license amendment, including:
  - A. Additional Details Needed on Sampling Methodology – in order to complete representative measurements of uranium-238 content in the AF material, additional details needed to be incorporated in the IUC sampling plan, including:
    - 1) Sample Size and Geometry - the size and geometry of the sample relative to the field detector are critical to establishing uranium-238 concentration in the AF samples.
    - 2) Number of Samples per AF Material Volume – if representative sampling is to be provided, additional information needs to be included in the IUC plans on how many samples will be collected per unit volume of Maywood AF material. A sufficient number of samples need to be collected in order to provide a representative measurement of uranium-238 content of the Maywood AF material.
    - 3) Field Sampling Methodology – additional description is needed in the IUC plan regarding the methodology of how the AF samples will be collected in the field. Samples could be collected in-situ on a grid basis, or could be collected on a grab basis as AF material is excavated or loaded into containers. These details are important to define if representative samples are to be representative of Maywood AF materials that will be shipped to White Mesa.
    - 4) Application of the 0.01% Uranium-238 Concentration Limit – additional information needs to be provided on how the sample results will be used to compared to the proposed 0.01% uranium-238 concentration limit. Possible approaches include using the average or the maximum concentration in a given volume of AF material to determined compliance with the 0.01% limit. Information should also be provided on

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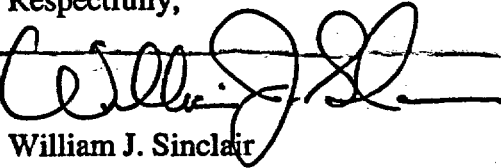
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the fate of the materials that fall below this limit and who makes this decision at the Maywood site.

- B. Site Inspections – no information is provided in the IUC submittals on who will conduct inspections of the field staff performing the AF material sampling.

We appreciate the opportunity to comment on the Draft EA. Should you have any questions or concerns regarding our comments, please contact myself or Loren Morton of my staff at (801) 536-4250.

Respectfully,



William J. Sinclair  
Director

WJS/LBM:lm

cc: Dennis Downs, DSHW  
Don Verbica, DSHW  
Bill von Till, NRC  
Harold Roberts, IUC

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File: IUC Alternative Feed Materials