

Transportation Emergency Response Plan for Shipments of Uranium Ore from the Pinyon Plain Mine to the White Mesa Mill

**EMERGENCY CONTACT: (435) 459-9463** 



Date: February 11, 2025

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### **PLAN SUMMARY**

Who has access to this plan? A copy of this Transportation Emergency Response Plan (TERP) will be located in the cab of the truck for each transport vehicle hauling uranium ore from the Pinyon Plain Mine (Mine) to the White Mesa Mill (Mill), in the same manner as prescribed for shipping papers, and readily available to the driver of the motor vehicle and to first responders at the incident scene. Copies of this TERP, with personal information redacted, will also be made available to state/county/tribal emergency management services, as requested.

What types of incidents does this plan cover? This TERP will apply to any transportation incident involving a transport vehicle along the haul route from the Mine to the Mill regardless of whether the accident results in vehicle or property damage, the release of uranium ore, a spill of oil/fuel, fire, explosion or other type of incident.

### **EMERGENCY PROCEDURES**

- 1. <u>Emergency Notification (Driver)</u>: In the event of an incident, the driver will take immediate action to notify local authorities (law enforcement, fire and rescue, emergency medical services (EMS) by dialing 9-1-1. (see Section 5.1)
- 2. <u>Initial Assessment and Response (Driver)</u>: Following the initial 9-1-1 notification, the driver will take immediate action to help the injured, secure the scene, and prevent or limit contamination. (see Section 5.2)
- 3. <u>Initial Incident Briefing Report and Internal Alerting (Driver)</u>: The driver will complete an Initial Incident Briefing Report and alert Hammon management. (see Section 5.3)
- 4. Response Team Mobilization (Hammon, Energy Fuels, MP Environmental): Hammon management will notify Energy Fuels and, in the event of an incident that results in a release of uranium ore or an oil/fuel spill, Hammon will notify MP Environmental. (see Section 5.4)
- 5. External Alerting and Reporting (Energy Fuels, Hammon): Notifications and reports will be provided to federal/state/local/tribal authorities as required. (see Section 5.5)
- 6. <u>Spill Recovery (MP Environmental, Energy Fuels)</u>: MP Environmental, with support from Energy Fuels, will implement spill recovery efforts. (see Section 5.6)
- 7. <u>Recovered Cargo Dispensation (MP Environmental, Energy Fuels)</u>: MP Environmental and Energy Fuels will implement cargo dispensation and cleanup verification. (see Section 5.7)
- 8. <u>Decontamination (MP Environmental, Energy Fuels)</u>: MP Environmental and Energy Fuels will implement decontamination procedures, as applicable. (see Section 5.8)

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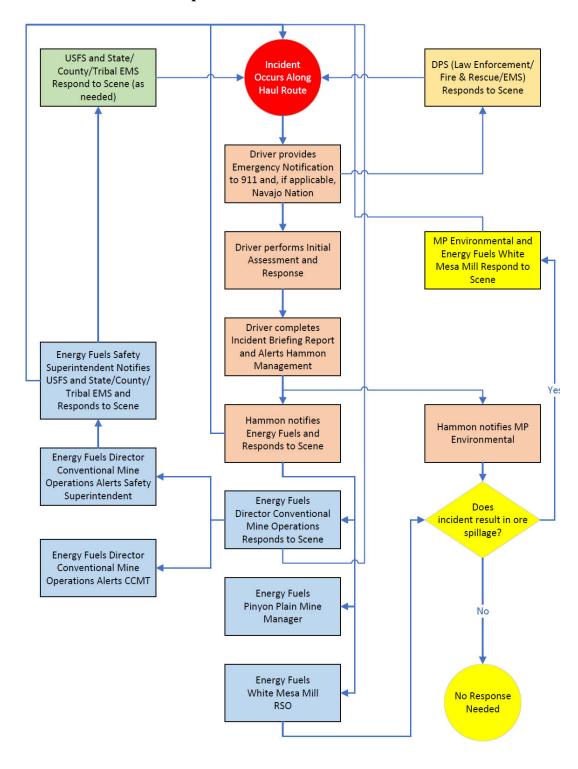
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### The foregoing steps are also depicted on the following flow chart:

### **Initial Response and Communication Flow Chart**



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### **Figures**

Figure 1 Haul Routes to Mill

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### **Forms**

Form 1 Press Release Form for Uranium Ore Accident

Form 2 Initial Incident Briefing Report Form

### **Attachments**

Attachment A Uranium Ore Safety Data Sheet

Guide 162 from Emergency Response Guidebook Attachment B

Attachment C Energy Fuels Resources (USA) Inc. Transportation Policy for Shipments

of Uranium Ores to the White Mesa Uranium Mill

Attachment D Navajo Nation Release Notification Form – Petroleum

Attachment E Navajo Nation Release Notification Form – Hazardous Substances Other

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Attachment F Navajo Nation Emergency Contacts

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### 1.0 INTRODUCTION

### 1.1 Purpose

This Transportation Emergency Response Plan (TERP) is established by Hammon Trucking, Inc. (Hammon) to meet the requirements of the U.S. Department of Transportation's (DOT's) regulations found at U.S. Code of Federal Regulations (CFR) Title 49, Part 172, Subpart G Emergency Response Information, and in accordance with Energy Fuels Resources (USA) Inc.'s (Energy Fuels') Transportation Policy for Shipments of Uranium Ores to the White Mesa Uranium Mill (see Attachment C). A well-constructed TERP could prevent a minor incident from becoming a major incident, save lives, prevent injuries and minimize potential damage to property and the environment.

### 1.2 Objectives

The objectives of this TERP are to:

- Minimize any adverse effects on people, damage to property, or harm to the environment in a transport emergency;
- Facilitate a rapid and effective emergency response and recovery;
- Aid emergency and security services; and
- Communicate vital information to all relevant persons involved in the emergency (both internal personnel and external agencies) with a minimum of delay.

### 1.3 Scope

This TERP prepares for the unexpected by identifying response mechanisms to a variety of potential crises arising from the transport of uranium ore. It outlines the necessary resources, personnel and logistics which allow for prompt, coordinated, and rational approach to a transport incident.

### 1.4 Description and Technical Name of Material being Shipped

The material being shipped is natural, unprocessed, uranium ore, which is classified as "Radioactive Material, Low Specific Activity (LSA-1), Non-Fissile or Fissile Exempt;" UN ID number: 2912; hazard class: Class 7; packaging group: none; radionuclides: Unat.

### 1.5 Emergency Contact Telephone Number (Emergency Response Telephone Number)

The emergency contact telephone number (emergency response telephone number

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required by 49 CFR 172.604) for use in an emergency involving the transport of uranium ore is (435) 459-9463.

This number and additional telephone numbers applicable to specific steps in the Emergency Procedures set out above are referred to in the specific procedures and Section 5 of this TERP.

#### 1.4 Description of Haul Route(s)

Below are the two approved haul routes from the Pinyon Plain Mine (Mine) to the White Mesa Mill (Mill):

### **Preferred Haul Route (A)**

Route	Route Description	Approximate Distance
Segment		(miles)
A	South on Forest Rd 305A to AZ-64	5.1
В	South on AZ-64 to Interstate 40	41.1
С	East on Interstate 40 to US Hwy 180	35.2
D	North on US Hwy 180 to US Hwy 89	1
Е	North on US Hwy 89 to US Hwy 160	62.3
F	East on US Hwy 160 to US Hwy 191	126
G	North on US Hwy 191 to the White Mesa Mill	50.3

### **Alternative Haul Route (B)**

Route	Route Description	Approximate Distance
Segment		(miles)
A	South on Forest Rd 305A to AZ-64	5.1
В	South on AZ-64 to US Hwy 180	13.2
С	East on US Hwy 180 to Babbit Ranch Rd Turn-off	17.3
D	East on Babbit Ranch Rd to US Hwy 89	29.8
Е	North on US Hwy 89 to US Hwy 160	33
F	East on US Hwy 160 to US Hwy 191	126
G	North on US Hwy 191 to the White Mesa Mill	50.3

Ore will be transported by over-the-road 24-ton haul trucks and end dump trailers. Transportation will be up to approximately 10 trucks per day. Transportation along Alternative Route B will not occur until Hammon receives written authorization from Energy Fuels.

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### 2.0 ROLES AND RESPONSIBILITIES

### 2.1 Hammon Trucking

Hammon is responsible for implementing this TERP. Among these duties are the driver's initial notification to 9-1-1 and Hammon management, who will subsequently notify Energy Fuels and, if the incident results in the spillage of oil/fuel or ore, MP Environmental. Hammon is also responsible for securing the incident scene until the arrival of law enforcement and/or fire and rescue (for more information on the Incident Command System, see Section 2.4 below). Hammon is also responsible for notifications to the U.S. Department of Transportation (DOT) and National Response Center as described under Section 4.1 below.

### 2.2 MP Environmental

MP Environmental is Hammon's subcontractor for performing emergency response and cleanup actions. In the event of an incident that involves a spill of oil/fuel or uranium ore, MP Environmental will respond to the scene and is responsible for spill recovery and dispensation of recovered materials.

### 2.3 Energy Fuels

Energy Fuels is responsible for providing support to Hammon in the implementation of this TERP. Among these duties are making external notifications to the Kaibab National Forest and state/county/tribal emergency management services based on the location of the incident along the haul route. Energy Fuels will also respond to the scene and, in the event of an incident that involves a spill of uranium ore, conduct radiation surveys, sampling and monitoring during and after cleanup activities, to ensure that recovered materials can be released for transport and verify cleanup actions.

### 2.4 Other Highway Incident Management Stakeholders

While the duties and responsibilities of these stakeholders will vary depending on the scope and complexity of the incident (e.g., if any uranium ore is spilled and, if so, how much uranium ore is released), the Incident Command System will be activated immediately upon 9-1-1 notification and the Incident Commander role will be assumed by the first responders (typically law enforcement or fire and rescue) that arrive at the scene. Until such time as an Incident Commander takes charge under the Incident Command System, each stakeholder will assume the role of Incident Commander for the stakeholder's role as specified in this Plan.

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### 3.0 TRAINING REQUIREMENTS

Transport vehicle operators and emergency response personnel are given basic indoctrination with respect to radioactivity, personal protection, identification and decontamination associated with uranium ore. The *Safety Data Sheet (SDS) for Uranium Ore in Breccia Pipe (Pinyon Plain Mine)* in **Attachment A** provides information on the hazards of working with uranium ore from the Mine and procedures that should be used to ensure safety. This information includes:

- Product Identification;
- Hazard Identification;
- Composition;
- First Aid Measures:
- Fire Fighting Measures;
- Accidental Release Measures;
- Handling and Storage;
- Exposure Controls and Personal Protection;
- Physical and Chemical Properties;
- Stability and Reactivity;
- Toxicological Information;
- Ecological Information;
- Disposal Considerations; and
- Other Additional Information, including Transportation and Regulatory.

Additional training may be provided on a periodic basis that includes a tabletop exercise or field demonstration and exercise involving emergency response personnel to ensure preparedness.

### 4.0 INCIDENT REPORTING AND MEDIA CONTACTS

### 4.1 Reporting to DOT and the National Response Center

The DOT reporting procedures require that an accident involving hazardous materials which results in any of the following must be reported:

- 1. A person is killed.
- 2. A person requires hospitalization.
- 3. An evacuation of the general public occurs lasting one or more hours.

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- 4. One or more major transportation arteries or facilities are closed or shut down for one hour or more.
- 5. The operational flight pattern or routine of an aircraft is altered.
- 6. Fire, breakage, spillage, or suspected radioactive contamination occurs following an accident involving radioactive materials.
- 7. A situation exists in the judgment of the carrier that there is a continuing danger to life.
- 8. A release of uranium ore that exceeds 0.051 curies (e.g., approximately 12.5 tons of ore with an average ore grade of 0.8% U<sub>3</sub>O<sub>8</sub>) constitutes a CERCLA Reportable Quantity (RQ) under 40 CFR 302 and 49 CFR 171 and requires immediate notification to the National Response Center.

As soon as practical but no later than 12 hours after the occurrence of any incident described above, each person in physical possession of the hazardous material must provide notice by telephone to the National Response Center at 800.424.8802 (toll free) or 202.267.2675 (toll call). Note that Hammon is responsible for reporting accidents involving their vehicles.

Hazardous Materials Incident Report on DOT Form F-5800.1 (Rev. 01/2004) must be filed within 30 days of discovery of the accident.

### 4.2 Media and Press Releases

The responsible Energy Fuels representative at the incident scene will be required to make statements to the press providing general information regarding the accident and status of emergency activities. To simplify this matter during the initial stages of emergency response, a "canned" press release form is included as Form 1 - Press Release Form for Uranium Ore Incident. State that additional comment on the status of the situation will be available later in the day. Other information released to the general public must have prior approval of Energy Fuels.

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### 5.0 PROCEDURES FOR HANDLING THE ACCIDENT

Situations arising from each accident can be highly variable depending on the following:

- Cell phone coverage and availability at the scene;
- Condition of vehicle operator (driver) after the accident;
- Weather conditions at the scene:
- Proximity of waterways and populated areas;
- Availability of first responders (law enforcement, fire and rescue, EMS) and state/county/tribal emergency management services; and
- Location of the incident along the haul route and the response time for MP Environmental and Energy Fuels personnel.

In view of these variables, this section is intended as a basic guide requiring certain judgmental decisions on a case-by-case basis. The Incident Commander has the authority to vary from the steps set out below if he or she deems it necessary in the circumstances to protect public health, safety or the environment.

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### 5.1 Emergency Notification (Driver)

In the event of an incident (i.e., emergency, hazard or other circumstance that may require a response by public safety personnel), the driver will take immediate action to notify local authorities (law enforcement, fire and rescue, emergency medical services (EMS) by dialing 9-1-1. If the incident occurs within the Navajo Nation, the driver shall also immediately (within 30 minutes) notify the Navajo Nation Police Department – Tuba City District at 928-283-3111. As a backup, if additional assistance is needed, or if otherwise appropriate, the driver shall call the Navajo Nation Police Department -Kayenta District at 928-697-5600, the Navajo Nation Police Department – Shiprock District at 928-368-1350 (see Figure 2 – Navajo Nation Police Response Districts) and/or the Arizona Department of Public Safety – District 2 in Page, AZ at 928-645-2122 and finally the Flagstaff Police Department at 928-774-1414. Dialing 9-1-1 and, if the incident occurs within the Navajo Nation, the additional contacts above, should be sufficient to notify such local authorities. However, if the driver determines that additional notifications are required or advisable in the circumstances, additional phone numbers for contacting local (county) law enforcement and the state highway patrol, depending on the location of the incident along the haul route, are provided in the table below.

State Highway Patrol				
Arizona Highway Patrol	928-697-3325			
Utah Highway Patrol	435-587-2000			
County Sheriff's Office				
Coconino County Sheriff's Office (AZ)	928-774-4523			
Navajo County Sheriff's Office (AZ) 928-524-4050				
Apache County Sheriff's Office (AZ)	928-337-4321			
San Juan County Sheriff's Office (UT)	435-587-2237			

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### 5.2 Initial Assessment and Response (Driver)

### 5.2.1 Immediate Precautions to be Taken.

Following the initial 9-1-1 notification and prior to performing any action, the scene should be quickly evaluated for potential hazards including injuries, oil/fuel spills, fires, downed power lines, release of uranium ore, traffic hazards, and proximity to streams or rivers. Identified hazards are to be avoided and, if possible, abated as soon as possible. The driver will take immediate action to help the injured, assess and secure the scene, and prevent or limit contamination.

Initially, reflective triangles, flares or cones can be used to control traffic until first responders arrive. All human and vehicular traffic through the spill area will be restricted and the area cordoned off, if possible. All persons not participating in the incident response will be restricted to 75 feet from the accident site. Upon arrival, local (county/tribal) or state law enforcement, including Navajo Nation law enforcement, as applicable, will assist in controlling traffic and keeping unauthorized persons out of the spill area. The driver will remain at the site until arrival of local, Navajo Nation or state law enforcement, or as otherwise advised by Hammon.

In addition to the SDS described in Section 3.0 above and provided in **Attachment A**, the driver will also carry a copy of DOT's current Guide 162 from the Emergency Response Guidebook (see **Attachment B**) and be trained in its use so that he/she can better identify potential hazards and the appropriate response procedures.

### 5.2.2 Initial Methods for Handling Spills or Leaks in the Absence of Fire

Immediate containment of spilled ore will be achieved by covering the spill area with a plastic sheeting or equivalent material to prevent wind and water erosion. Perimeter ditching will be used to contain the spill if it should occur in an area where runoff could result from precipitation or if the release involves a liquid (e.g., diesel). Hammon's transport trucks will be equipped with the following items to secure any uranium ore that is released during an incident.

Quantity	Description
1	Box w/Lid
1	1000 ft2 Plastic sheeting
1	Shovel
24	Spikes
1	Hammer
4	KN 95 Dust Masks
1	Coveralls

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2	Pair of Gloves
1	Pair of Boot Covers
Reflective	clothing to DOT specifications

Generally, uranium ore is relatively moist and not dusty, so no personal protective equipment is required to cover the ore with a plastic sheeting, provided that prolonged contact with the ore is not made. If contact with the ore is made, wear the provided gloves and follow the precautions described below under *Immediate Hazards to Health*. If the ore is dusty and it is windy, wear the provided KN95 dust mask. Do not attempt to clean up an ore spill. Refer to section 5.6 for procedures for cleaning up an ore spill.

### 5.2.3 Risks of Fire or Explosion

Uranium ore is not flammable. However, uranium ore may emit toxic and radioactive particulates if impacted by a fire. If uranium ore is involved in a fire, dikes should be used to control fire runoff water for later disposal. Fire runoff water should be contained to prevent possible or further environmental contact. See Section 5 of the attached SDS for more information.

### 5.2.4 Immediate Methods for Handling Fires

Uranium ore is not flammable and is not reactive under normal circumstances of use. If uranium ore is involved in a fire, use suitable extinguishing media for surrounding material and type of fire. Fire runoff water should be contained to prevent possible or further environmental contact. Emergency responders must wear the personal protective equipment suitable for the situation to which they are responding. See Sections 4 and 5 of the attached SDS for more information.

### 5.2.5 Immediate Hazards to Health

The uranium ore transported to the Mill is low specific activity material in uranium grade typically less than two (2) percent uranium oxide (U<sub>3</sub>O<sub>8</sub>). Based on U.S. EPA and U.S. Nuclear Regulatory Commission (NRC) health-based standards, a clean-up action of material having this uranium content would not result in a worker becoming overexposed to radiation, even if the action extends over several days. However, in an abundance of caution, the following precautions should generally be followed whenever in close contact to uranium ore, to the extent possible: avoid contact with skin and eyes; do not eat, drink, or smoke while handling or near uranium ore; avoid breathing airborne uranium ore dust; remove contaminated clothing immediately and send clothing to be cleaned before reuse; and wash hands, forearms, and other exposed areas thoroughly after any exposure. See Section 7 of the SDS for further details.

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### 5.2.6 Preliminary First Aid Measures

IF URANIUM ORE IS SWALLOWED: immediately call a poison center or doctor. Rinse mouth.

IF URANIUM ORE IS INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

IF URANIUM ORE IS IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice/attention. Specific treatment is urgent. Immediately call a poison center or doctor.

For further details see Section 4 of the attached SDS.

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### 5.3 Initial Incident Briefing Report and Internal Alerting (Driver)

Following initial assessment and response actions to help the injured, secure the scene, and prevent or limit contamination as specified in Section 5.2, the driver will complete an Initial Incident Briefing Report and communicate essential information to Hammon management (see Form 2 – Initial Incident Briefing Report Form for recording this information). The driver will then notify Hammon management through one of the following contacts.

Hammon Management				

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### 5.4 Response Team Mobilization (Hammon, Energy Fuels, MP Environmental)

Immediately upon notification, Hammon management will notify Energy Fuels' Conventional Mine Operations and one of the contacts at each of the Pinyon Plain Mine and White Mesa Mill as indicated below.

Energy Fuels				
Conventional Mine Operations	<u>Mobile</u>			
Pinyon Plain Mine	<u>Daytime / Nighttime</u>			
White Mesa Mill	Mobile/Office			

Immediately upon notification, Energy Fuels' Director, Conventional Mine Operations, will activate Energy Fuels Corporate Crisis Management Team and notify Energy Fuels' Safety Superintendent.

Depending on the location of the incident, one or more Energy Fuels representatives will respond to the scene. In the event of an incident that involves a release of uranium ore, trained personnel from the White Mesa Mill will also respond to support recovery and cleanup actions.

In the event of an incident that involves a release of uranium ore, Hammon management will also notify MP Environmental through their 24-hour emergency contact as indicated below.

MP Environmental			
24-hour On Call Service 800-458-3036			

MP Environmental will then respond to facilitate uranium ore recovery and cleanup actions. This will include deployment of various equipment as may be required, including hand tools, loaders, a front-end loader or backhoe, skid steer loader, truck and trailer.

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# 5.5 External Alerting and Reporting (Energy Fuels, Hammon)

Immediately upon notification, Energy Fuels Safety Superintendent, or delegate, will notify the Kaibab National Forest and, depending on the location of the incident, the appropriate state/county/tribal emergency management services as indicated below.

Kaibab National Forest				
Primary: Williams and Tusayan District				
Ranger				
If does not answer, try again in 5 min. If does				
not answer on second attempt, immediately				
proceed to 1 <sup>st</sup> alternate.				
1 <sup>st</sup> Alternate: Forest Supervisor				
If does not answer, immediately proceed to				
$2^{nd}$ alternate.				
2 <sup>nd</sup> Alternate: Deputy Forest Supervisor				
Williams Interagency Dispatch Center	928-635-2601			
Contact ONLY if wildland fire is ignited.				
State Age	ncies			
Arizona Department of Environmental	602-390-7894			
Quality – Duty Officer				
Utah Division of Waste Management and	801-536-7200 (24-hour)			
Radiation Control				
County Emergency	y Management			
Coconino County Emergency Management	928-679-8606 (Primary)			
	928-606-1286 (Secondary)			
Navajo County Emergency Management	928-524-4050 (Primary)			
	928-241-0593 (Secondary)			
Apache County Emergency Management	928-551-8024			
San Juan County Emergency Management	435-587-3225			
Tribal Emergency Management				
Hopi Tribe, Department of Public Safety &	928-734-3663			
Emergency Services				
hWhite Mesa Ute Tribe, Health Services,	970-564-5441			
Public Safety				
•				

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If the incident triggers any of the DOT or U.S. Environmental Protection Agency (EPA) reporting requirements described in Section 4.1 above, Hammon will provide verbal and written reports to the National Response Center and DOT, as appropriate.

National Response Center			
Toll Free	800-424-8802		
Toll Call	202-267-2675		

If the accident involves the release of uranium ore or other hazardous material in quantities equal to or greater than the reportable quantity for that material, Energy Fuels shall also notify by phone the Navajo Nation Department of Emergency Management and Navajo Nation Superfund Program within 24 hours of the release, pursuant to the Navajo Nation Comprehensive Environmental Response, Compensation and Liability Act (NNCERCLA) § 2201(A) and Navajo Nation Environmental Protection Agency's (NNEPA's) Release Reporting Regulations §§ 201(a) and 202(b). The reportable quantity means, as established by the NNERCLA, 4 N.N.C. §§ 2105(B) and 2801(B), and Release Reporting Regulations § 103(f), the amount prescribed in 40 CFR § 302.4 or one pound, if not listed in that section, except in the case of petroleum. For petroleum (such as gasoline or diesel fuel), the reportable quantity means 25 gallons for releases on land and, for releases into a "water of the Navajo Nation" (WOTNN), as that term is defined in the Navajo Nation Clean Water Act, 4 N.N.C. § 1302(A)(43), such quantity as violates the Nation's water quality standards or causes a film or sheen upon or discoloration of the surface of the water or causes a sludge or emulsion to be deposited beneath the surface of the water. The verbal report shall include as much of the information required by the applicable Navajo Nation Release Notification Form (see Attachments D and E) as known at the time of the accident, Release Reporting Regulations § 202(a).

Navajo Nation				
Department of Emergency Management				
Superfund Program				

Also see Attachment F – Navajo Nation Emergency Contacts for a complete list of emergency contacts for the Navajo Nation.

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### 5.6 Spill Recovery (MP Environmental, Energy Fuels)

This section describes the potential for exposure, required personal protection equipment (PPE), and cleanup procedures to be used by MP Environmental, with support from Energy Fuels, during spill recovery.

### 5.6.1 Immediate Hazards to Health

The uranium ore transported to the Mill is low specific activity material in uranium grade typically less than two (2) percent uranium oxide (U<sub>3</sub>O<sub>8</sub>). Based on U.S. EPA and U.S. Nuclear Regulatory Commission (NRC) health-based standards, a clean-up action of material having this uranium content would not result in a worker becoming overexposed to radiation, even if the action extends over several days. However, in an abundance of caution, the following precautions should generally be followed whenever in close contact to uranium ore, to the extent possible: avoid contact with skin and eyes; do not eat, drink, or smoke while handling or near uranium ore; avoid breathing airborne uranium ore dust; remove contaminated clothing immediately and send clothing to be cleaned before reuse; and wash hands, forearms, and other exposed areas thoroughly after any exposure. See Section 7 of the SDS for further details

### 5.6.2 Required Personal Protection Equipment (PPE)

Due to the limited risks posed by the low specific activity uranium ores being transported, worker protection can be limited to standard industrial clothing and safety protection consisting of work pants, sleeved work shirt, hard hats, safety glasses, and steel toed safety shoes/boots. When handling the uranium ore directly, boot covers and protective or rubber gloves should be worn. If dusty conditions are present, respiratory protection may be needed. Either half mask or full-face respirators with p100 cartridges are sufficient if respirators are warranted. In addition, reflective clothing to DOT specifications should be provided and used in the event of an accident.

### 5.6.3 Cleanup Procedures

Because of its potential to cause a fire or contaminate nearby water sources, containment and cleanup of any fuel spills is normally the priority. Many of the fire departments carry absorbents and booms to contain and clean up these types of spills. Spilled ore materials, depending on the size of the spill, can be cleaned up initially with a loader and completed with hand tools. If the spill is large, the ore should be transferred directly to another truck approved for uranium ore haulage. Smaller spills can be placed in barrels or other suitable containers. If it is windy, dust can be controlled with light water sprays; however, large volumes of water should not be used because this could result in runoff of water containing uranium and other contaminants. If the spill occurs near or within a

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stream or river, efforts should be made to limit the quantity of ore released to the water source (e.g., digging perimeter and diversion ditches, installing silt fencing, etc.).

### 5.6.4 Risks of Fire or Explosion; Immediate Methods for Handling Fires

Uranium ore itself is not flammable and is not reactive under normal circumstances of use. As a result, the risk of fire or explosion from the uranium ore itself is non-existant. Any fires resulting from gasoline or diesel fuel ignition will be handled under Section 5.2 of this TERP and should have been dealt with already.

However, it may be possible for spilled fuel mixed into spilled ore could ignite in the cleanup process. If uranium ore is involved in a fire, use suitable extinguishing media for surrounding material and type of fire. Fire runoff water should be contained to prevent possible or further environmental contact. Emergency responders must wear the personal protective equipment suitable for the situation to which they are responding. See Sections 4 and 5 of the attached SDS for more information.

### 5.6.5 Preliminary First Aid Measures

IF URANIUM ORE IS SWALLOWED: immediately call a poison center or doctor. Rinse mouth.

IF URANIUM ORE IS INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

IF URANIUM ORE IS IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice/attention. Specific treatment is urgent. Immediately call a poison center or doctor.

For further details see Section 4 of the attached SDS.

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### 5.7 Recovered Cargo Dispensation (MP Environmental, Energy Fuels)

This section describes the procedures for cargo dispensation, site inspection and cargo recovery verification, and cleanup verification.

### 5.7.1 Cargo Dispensation

Recovered materials that have been loaded for transport can be released by the assigned Energy Fuels cleanup supervisor to be transported to the Mill. Any materials contaminated with oil or fuel should be containerized and transported to a suitable holding area at the Mill for later characterization and appropriate dispensation. Recovered materials that are released for transport to the Mill will follow applicable DOT standards including placarding and markings.

### 5.7.2 Site Inspection and Cargo Recovery Verification

The procedure for site inspection and cargo recovery verification is as follows:

- Conduct radiometric survey demonstrating that the site has been returned to natural background conditions;
- Energy Fuels will approve final cleanup; and
- Submit incident report(s) to regulatory agencies and tribal authorities, as required.

### 5.7.3 Cleanup Verification

After visible spilled ore material has been removed, a Scintillometer or gamma meter will be used to conduct a grid survey of the site and identify any "hot spots" of residual radiation on ground surfaces. These areas are determined by comparison to local background gamma measurements from an unaffected area near the accident scene or, in the event of an incident that occurs within the Navajo Nation, background data provided by NNEPA or the U.S. Environmental Protection Agency. The hot spots can be marked using spray paint, chalk, or utility flags. After these hotspots are further cleaned, they will be rechecked with an instrument to verify that the area is at or near background radiation levels. This is normally readily achievable on hard surfaces such as concrete or asphalt. Some over-excavation of underlying soils may be necessary in gravel or grassy areas. If there is a concern regarding the cleanup levels achieved, soil samples can be taken of the contaminated area and nearby uncontaminated area to establish background levels.

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### 5.8 Decontamination (MP Environmental, Energy Fuels)

There are specific procedures in place for decontaminating equipment and tools for "free release" of these items. If possible, all tools and equipment will be shipped to the Mill for decontamination and radiological release. If not possible, tools and equipment will be surveyed at the incident location. Any contamination that does not meet release criteria will then be sent to the Mill. These procedures generally include cleaning protocols, collecting swipe samples for analysis, and scanning for radiation levels.

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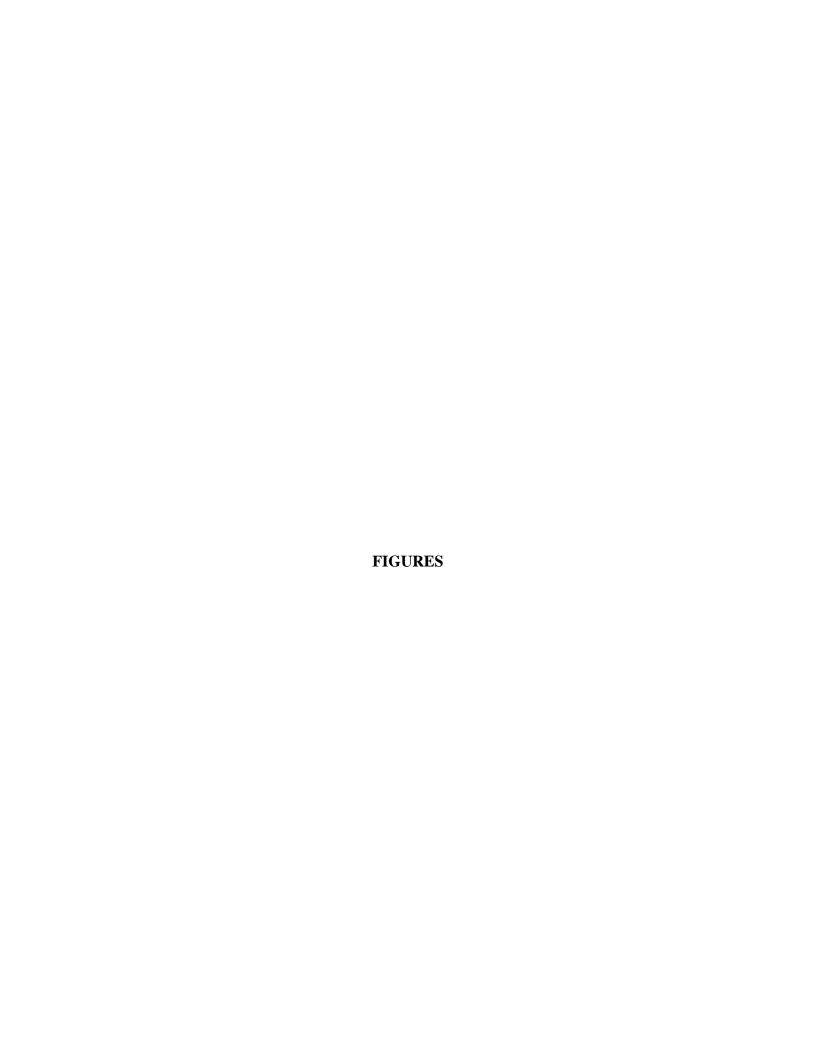
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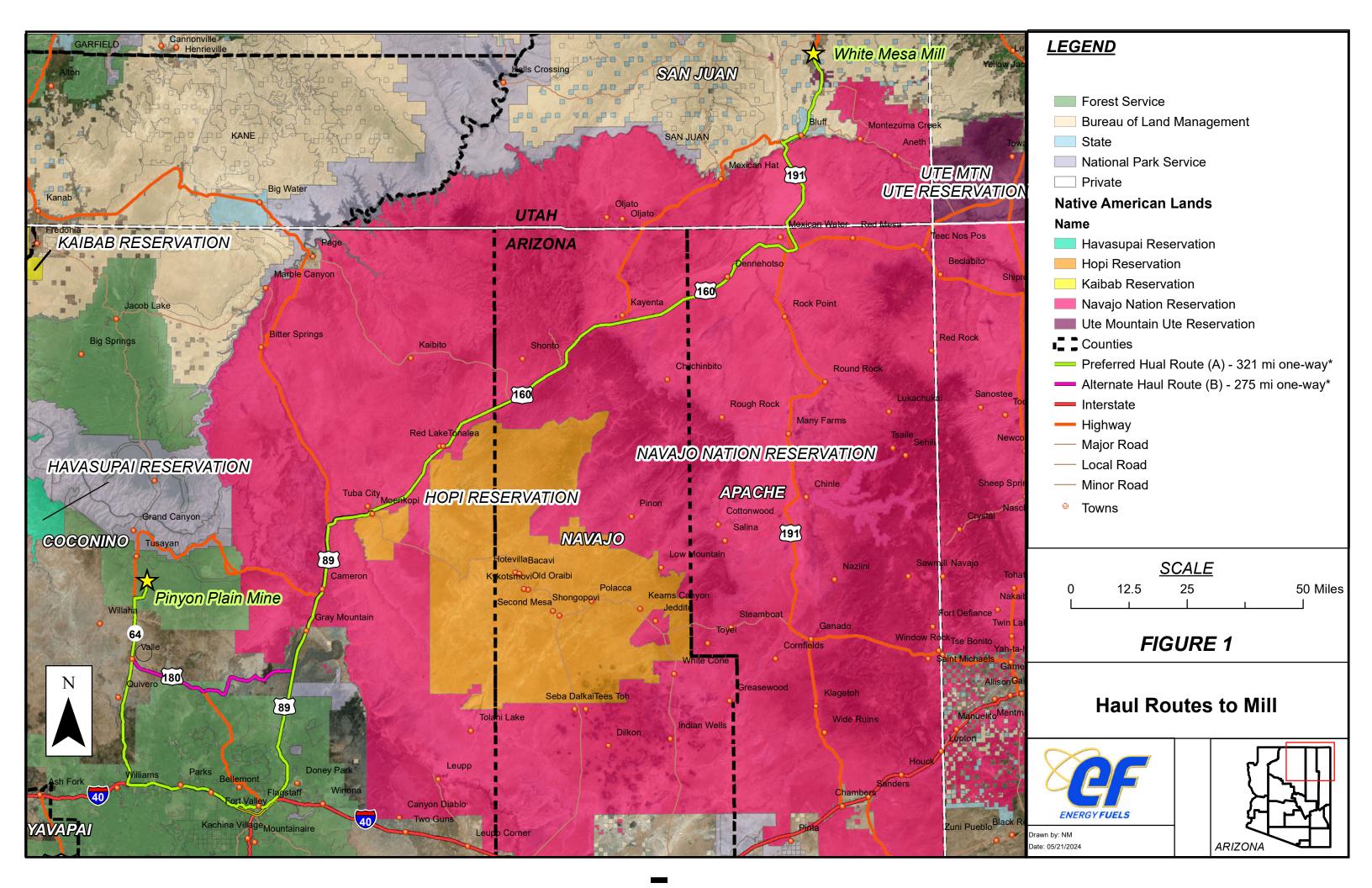
# 6.0 CERTIFICATION STATEMENT

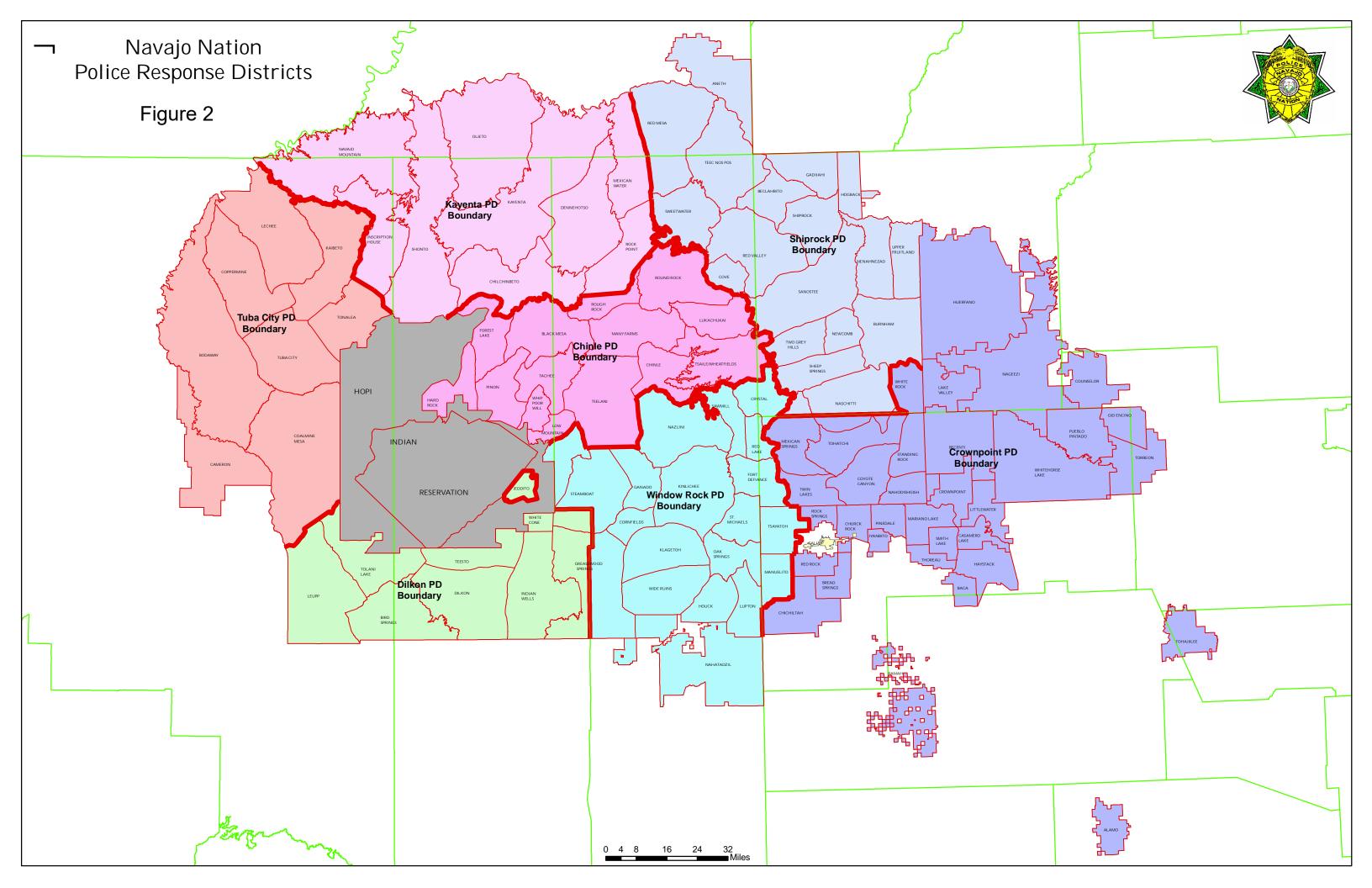
The statement below	will be	signed and	d provided to	Energy	Fuels and	d included	with the	TERP in
each shipping vehicle	<b>:</b> .							

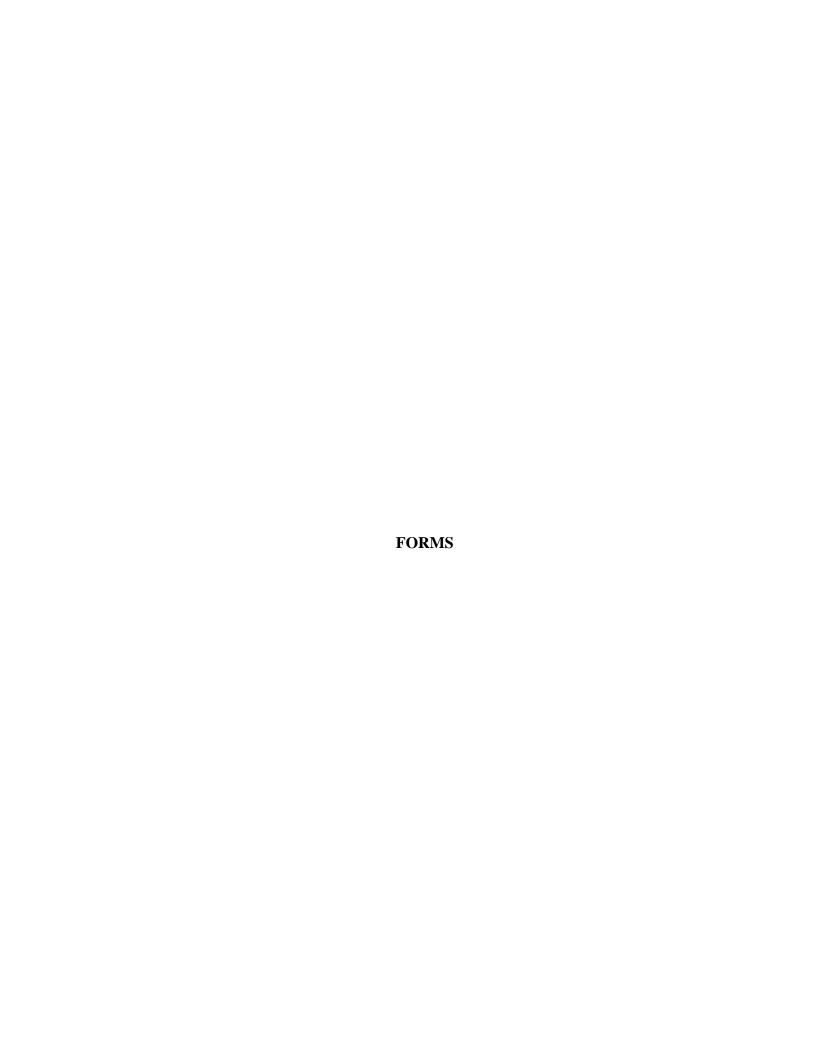
I certify that I have read and reviewed this plan and will abide by the requirements of it in the event of an emergency response.

Name:	Date:
Title:	Company:







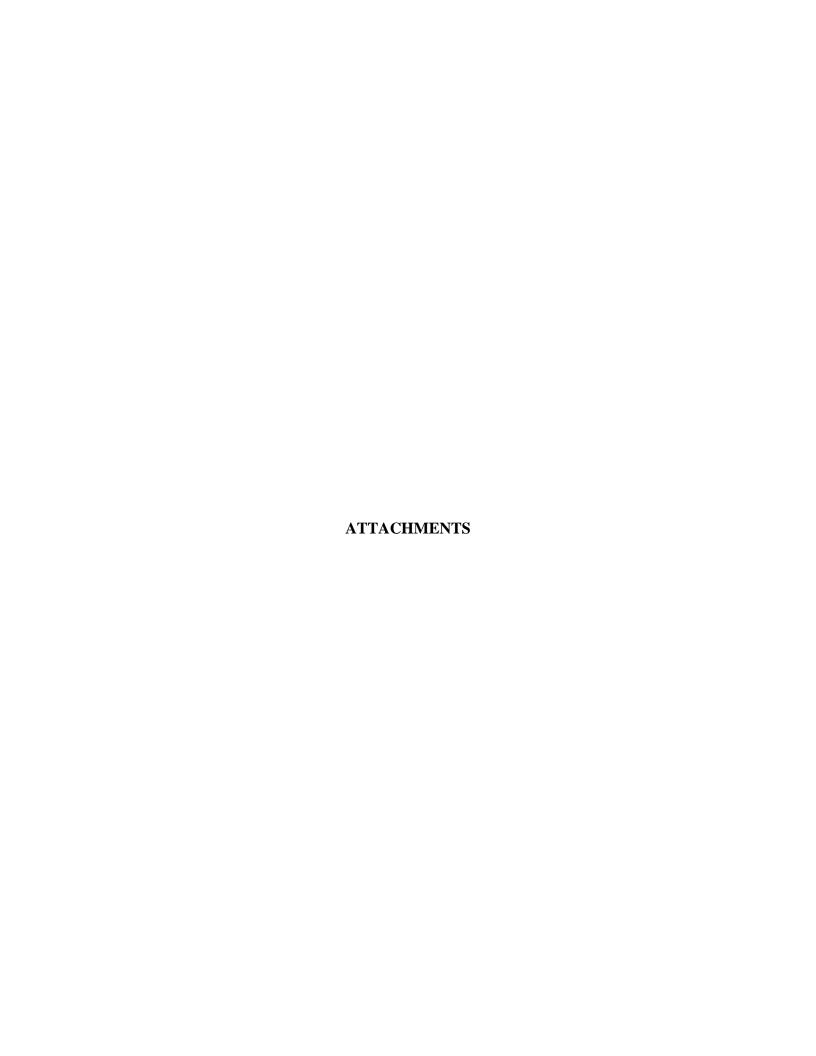


# Form 1 Press Release Form for Uranium Ore Incident

At approximately (time)	on (date)	an accident involving a truck
carrying uranium ore from Energy	y Fuels Resources (USA) II	nc.'s Pinyon Plain Mine to the White
Mesa Mill occurred near (location	1)	
There (were or were not)	injuries to	the public or the driver of the truck.
There (was or was not)	spi	llage of uranium ore from the truck.
The accident occurred at	near	
If no spillage: State that your pur continue without presenting a haz	-	heck to ensure that the shipment can
	on with government author	been trained to clean up spills of rities to clean up the spill as quickly

# Form 2 Initial Incident Briefing Report Form

Date Time
Person Calling Capacity
From Telephone No Who Else Notified
Accident Location
Description of the Accident
Persons Injured Name(s)
Treatment
Accident Description
Was Any Material (i.e., fuel, ore, etc.) Spilled from the Vehicle(s)?
What Action Has Been Taken to Contain the Material?
Driver reports this information to one of the following:



# **Attachment A**

**Uranium Ore Safety Data Sheet** 



# **Uranium Ore in Breccia Pipe (Pinyon Plain Mine)**

### **Section 1: Product Identification**

<u>Product Name:</u> Uranium ore mixed with quartz, iron, and copper minerals as major

components, unoxidized and oxidized mineralization of uranium may be

present.

Synonyms: Pitchblende, uranium oxide ore, uraninite ore

<u>Supplier Information:</u> Pinyon Plain:

HWY 64, Mile Marker 226

FSR 305

Tusayan, AZ 86023

Ph: 303-389-4169 or 303-389-4170

<u>Recommended Use:</u> For processing into fuel for nuclear reactors.

In Case of Emergency:

# Section 2: Hazard Identification

### **Pitchblende**

Hazard classification: Acute toxicity – Oral – Category 2

Eye irritation – Category 2

Skin - Category 2

Carcinogenicity – Category 1A

Specific target organ toxicity – Acute Exposure – Category 2
Specific target organ toxicity – Repeated Exposure – Category 1

**Caution note:** The hazardous to aquatic environment classification needs to be verified for each compound. This classification looks at LC50 based on concentration in test water. Data is expressed as uranium concentration therefore classification may be

overly conservative for compounds that are insoluble.

<u>Target Organs:</u> Kidney, Liver, Lungs, Brain

Signal Word: Warning

NFPA Rating: H: U F: 0 R: 0





**Label Elements:** 



Harmful if swallowed or if inhaled. <u>Hazard statement(s):</u>

May cause damage to organs through prolonged or repeated exposure.

Causes eye irritation.

Use appropriate procedures and precautions to prevent or minimize

exposure.

Precautionary Statements: Do not breathe particulates or dust. Use personal protective equipment as

required.

Wash hands, forearms, and other exposed areas thoroughly after handling.

Do not eat, drink, or smoke near uranium ore.

IF SWALLOWED: Immediately call a poison center or doctor. Rinse mouth.

IF INHALED: Remove person to fresh air and keep at rest in a position

comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical advice/attention. Specific treatment is urgent.

Immediately call a poison center or doctor.

Poison control hotline: 800-222-1222

Collect spillage. Dispose of contents at the White Mesa Mill site. Container should also be transported to the White Mesa Mill for disposal or processing.

### **Section 3: Composition/Information on Ingredients**

Uranium ore varies in color from yellow to orange (uranates), dark green or black (oxides). It is an odorless powder. Inhalation, ingestion, or absorption through skin abrasions may lead to heavy metal toxicity or radiation exposure. Avoid inhalation or contact with skin, eyes, and clothing. Wash thoroughly after handling.

Pitchblende, uranium oxide ore, uraninite ore Common name and synonyms:

Chemical name(s) of possible minerals, other than uranium minerals, in ore:

Quartz (68 wt%), tennantite (10 wt%), bornite (5 wt%) and chalcocite (4 wt%) are the most abundant gangue minerals in the ore. Minor amounts of clay and mica minerals (4 wt%), sphalerite (3 wt%), chalcopyrite (2 wt%) and K-feldspar (2 wt%) are also present. Trace constituents include pyrite, covellite, barytes, Fe-oxide/hydroxide and carbonates. Please note that the mineral concentrations vary from ore zone to ore zone and the above values are approximate.



#### **Section 4: First-Aid Measures**

**Eye Contact:** Flush eyes with copious amounts of water for fifteen minutes. Separate eyelids with fingers.

If irritation persists, seek medical attention.

Skin Contact: If this product contaminates the skin, begin flushing the skin with soap and water. Remove

any exposed or contaminated clothing, taking care not to contaminate the eyes. Call a poison control center or doctor if irritation develops or persists after area has been rinsed.

<u>Ingestion:</u> If this product is swallowed, call physician or poison control center for the most current

information. If professional advice is not available, do not induce vomiting. Contaminated individuals should drink large quantities of water. Never induce vomiting or give diluents to someone who is unconscious, having convulsions or unable to swallow. Seek medical

attention immediately. Poison control hotline: 800-222-1222

<u>Inhalation</u>: Move to a fresh air environment. Give oxygen with artificial respiration as needed. Seek

medical attention for treatment, observation, and support as needed. Contact a physician

if breathing becomes difficult.

Following all major exposures: Contaminated individuals should remove clothing and wash off

contaminated areas with water. Take a copy of the SDS to health professional with contaminated individuals that require medical attention. Follow established procedures

including radiation-monitoring programs.

**EMERGENCY OVERVIEW**: Uranium ore varies in color from yellow to orange (uranates), dark green or black (oxides). It is an odorless powder. Inhalation can be harmful due to lung irradiation by inhaled particles. In case of accident, or if you feel unwell, seek medical advice immediately.

This material is not flammable and is not reactive under normal circumstances of use. If this material is involved in a fire, use suitable extinguishing media for surrounding material and type of fire. Fire runoff water should be contained to prevent possible environmental damage. Emergency responders must wear the personal protective equipment suitable for the situation to which they are responding.



### **Section 5: Fire Fighting Measures**

<u>Flash Points:</u> Not Available

Explosion Limits: Not Available

Auto Ignition (°C): Not Available

Extinguishing Media: Carbon dioxide, dry chemical powder, alcohol-resistant foam, or water spray.

Protective Equipment: As in any fire, wear self-contained breathing apparatus pressure-demand,

MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific Hazards: Uranium ore is not flammable. However, the product may emit toxic and

radioactive particulates if released. If this product is involved in a fire, dikes should

be used to control fire runoff water for later disposal.

#### **Section 6: Accidental Release Measures**

<u>Personal Precautions:</u> Trained personnel using preplanned procedures should respond to uncontrolled releases. Proper protective equipment should be used. Minimum personal protective equipment should be gloves, goggles, respirator, as well as appropriate body protection. For large spills large equipment should be used to load spill into additional trucks for cleanup. Small spills should be shoveled or swept and placed in a container with a lid for proper disposal.

In case of an unexpected release off-site, clear the affected area, protect people, and respond with local emergency response personnel. Do not touch spilled materials. Cover powder spill with plastic sheet or tarp to minimize spreading. Contact the company Radiation Safety Officer at 435-459-9463, to obtain further instructions and access to trained personal.

#### Methods and Materials for Containment and Cleaning Up:

<u>Small spill:</u> Avoid dust generation. Ore typically contains moisture and is not easily airborne. Use caution to keep dust to a minimum when cleaning up any types or spills. Dispose of contents at the White Mesa Mill.

<u>Large spill:</u> Approach release from upwind. Avoid creating dusty conditions and prevent wind dispersal. Prevent entry into sewers, water courses, or confined areas. Avoid dust generation. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of materials at the White Mesa Mill. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.



## **Section 7: Handling and Storage**

<u>Precautions for Safe Handling:</u> All personnel who handle uranium ore should be trained to handle the material safely. Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Do not eat, drink, or smoke while handling this product. Remove contaminated clothing immediately and send the clothing to be cleaned before reuse. Wash thoroughly after exposure. Avoid formation of dusts and aerosols.

Handling and Storage: N/A

## **Section 8: Exposure Controls and Personal Protection**

#### **Exposure Limits:**

#### Quartz:

30 mg/m3 /%Si02 +2 total dust, 10 mg/m3/%Si02+2 resp. dust, OSHA PEL 0.02 mg/m3 respirable fraction (alpha quartz) ACGIH TLV 50 mg/m3 (quartz) NIOSH IDLH

Subject to California Proposition 65 cancer and/or reproductive toxicity warning and release requirements - (October 1, 1988)

URANIUM, Insoluble Compounds (As U):

0.05 mg/m3 OSHA PEL-TWA

0.2 mg/m3 ACGIH TWA; 0.6 mg/m3 ACGIH STEL

0.2 mg/m3 NIOSH Recommended TWA; 0.6 mg/m3 NIOSH Recommended STEL

Occupational exposure to radioactive substances must adhere to standards established by the Occupational Safety and Health Administration, 29 CFR 1910.96, and/or the Nuclear Regulatory Commission, 10 CFR Part 20.

#### **Engineering Controls:**

Radiation shielding: For large spills, large equipment should be used to load spill into additional trucks for cleanup. Small spills should be shoveled or swept and placed in a container with a lid for proper disposal.

Alpha particles: The typical alpha particles emitted by uranium oxide are easily shielded by a fraction of a millimeter of any ordinary material or a few inches of air. Thick paper, plastic, or cardboard will suffice. Do not breathe or ingest material to prevent alpha exposure.

<u>Beta particles:</u> Beta particles are present in uranium ore. Basic PPE such as safety glasses, gloves, boots, and in some cases, respirators will prevent potential exposure.



# **Engineering Controls (Cont.):**

Gamma rays: Gamma rays are highly penetrating and are most easily shielded by heavier elements (high Z

number).

#### **Personal Protective Equipment:**

Eye Protection: Employee must wear eye protection to prevent eye contact with this substance.

<u>Clothing:</u> Employee must wear sufficient clothing to prevent repeated or prolonged skin contact with

this substance.

<u>Gloves:</u> Employee must wear appropriate protective gloves to prevent contact with this substance.

Respirator: The following respirators and maximum use concentrations are recommendations by the U.S.

Department of Health Services, NIOSH Pocket Guide to Chemical Hazards; or by the U.S. Department of Labor, 29 CFR 1910 Subpart Z. The specific respirator selected must be based on contamination levels found in the workplace. Airborne contamination levels must not exceed the working limits of the respirator. Respirators must be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health

Administration (NIOSH-MSHA).

# **Section 9: Physical and Chemical Properties**

<u>Color and Form:</u> Uranium ore varies in color from yellow to orange (uranates), dark green or black

(oxides). It is an odorless powder.

Molecular Formula: UO<sub>2</sub> and SiO<sub>2</sub>

Molecular Weight: 270.03 g/mol (UO<sub>2</sub>), 60.08 g/mol (SiO<sub>2</sub>)

Melting Point: 2865°C (5189°F) (UO<sub>2</sub>), 1713 °C (3115°F) (SiO<sub>2</sub>)

Boiling Point:  $2950 \,^{\circ}\text{C} \, (5340 \,^{\circ}\text{F}) \, (\text{SiO}_2)$ 

Relative density: 10.97 g/cm<sup>3</sup> (684.8 lb/ft<sup>3</sup>) (UO<sub>2</sub>), 2.196 g/cm<sup>3</sup> (137.1 lb/ft<sup>3</sup>) (SiO<sub>2</sub>)

Odor: None Solubility in Water: Insoluble



# **Section 10: Stability and Reactivity**

<u>Stability:</u> Stable under normal temperatures and pressures except for radioactive disintegration.

<u>Conditions to Avoid:</u> No potentially hazardous conditions could be found in the literature, nor could any accidents be recalled in which uranium ore reacted in a hazardous manner.

Incompatibility:

Quartz: Alkalis (strong,) chlorine trifluoride, hydrochloric acid, manganese trifluoride, metals (pure), oxidizers (strong,) oxygen trifluoride, ozone, vinyl acetate, xenon hexafluoride.

Uranium: Bromine trifluoride: Reaction is rapid below 135°C.

# **Hazardous Decomposition Products:**

Quartz: Thermal decomposition may release toxic/hazardous gases.

Uranium: Thermal decomposition may release toxic/hazardous gases. Radioactive decomposition may produce hazardous radon gas.

# **Section 11: Toxicological Information**

**Likely Routes of Exposure:** Inhalation, ingestion, skin, and eye contact.

<u>Uranium oxide</u> is irritating to the skin, eyes, and mucous membranes. Uranium ore is both radioactive and toxic. Radioactivity is not a regulated hazard under the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). However, it is difficult to separate the effects on human health, which can arise from both types of hazards.

Natural uranium emits alpha particles (a form of radiation), which are of biological significance only if the uranium ore dust is internalized by inhalation, by ingestion or by deposition into an open wound.

Because of its slow absorption through the lungs, the primary damage from uranium ore is due to radiological damage to internal organs rather than chemical damage, which is mainly to the renal system. Uranium ore is soluble in hydrochloric acid and some ingested material could be absorbed from the stomach. Uranium compounds may be toxic to the kidneys (nephrotoxins).

Chronic inhalation of insoluble uranium compounds may damage the lungs and effect the lymph nodes. Pneumoconiosis may occur. Deposition of uranium in the tissue of the bone occurs most readily with soluble uranium compounds.

Deposition may occur, to a lesser degree, with insoluble compounds. Adverse effects of uranium bone deposition include blood disorders such as anemia and leukopenia. In humans, cancer of the lung, lymphatic and hemopoietic systems, and bone have been reported. Uranium compounds usually do not constitute an external radiation exposure hazard since uranium emits mainly alpha radiation at a low energy level. Uranium may constitute an internal radiation hazard if it is absorbed into the body, delivering alpha emission onto tissues in which it is stored.



<u>Crystalline quartz</u> can cause silicosis and is listed as a carcinogen.

SKIN CONTACT: Quartz may cause irritation of intact skin via mechanical action. Skin abrasions may cause scarring. Uranium oxide may be irritating to the skin; however, there is no evidence that insoluble uranium compounds can be absorbed through unbroken skin. Penetration through damaged skin may result in internal damage or deposition of radioactive materials. Prolonged skin contact with insoluble uranium compounds should be avoided because of potential radiation damage to basal cells. Dermatitis has occurred as a result of handling some insoluble uranium compounds.

EYE CONTACT: Particles of quartz may cause irritation via mechanical action. An abnormally high silicon content in the cornea, and a gradual decrease in visual acuity due to corneal opacities in the pupillary area, have been reported in a group of foundry workers who developed pulmonary silicosis. Radiation affects the eye by inducing acute inflammation of the conjunctiva and the cornea. The most sensitive part of the eye is the lens. An effect of eye irradiation is cataract formation. Cataracts may begin to develop anywhere from 6 months to several years after a single, large exposure or after prolonged exposure. The rate of growth and the degree of opacity are dependent upon the dose of radiation.

INGESTION: Crystalline quartz is biologically inert. Effects of ingestion are due to mechanical action. The fate of ingested alpha emitters depends on their solubility. Uranium oxide is not biologically soluble, and the primary dose received would be to the lining of the gut. Repeated ingestion of alpha emitters may lead to increased cancer risk.

# **Section 12: Ecological Information**

Uranium ore: This material is insoluble in water.

Quartz: This material is insoluble in water.

## **Section 13: Disposal Considerations**

Dispose of according to local, state, and federal regulations Contaminated Uranium Ore is classified as a low-level radioactive waste (LLRW) and should be sent to the White Mesa Mill for disposal. Any contaminated equipment, tools, clothing, or other objects should also be sent to the White Mesa Mill for disposal or for decontamination.

#### **Section 14: Transportation**

Shipping Name (CFR): Radioactive Material, Low Specific Activity (LSA-1)

Hazard Class (CFR): 7

Packaging Group (CFR): None
UN ID Number (CFR): 2912
Radionuclides: U-nat

Energy Fuels Resources 6425 S HWY 191 Blanding, UT 84511 435 678 2221 www.energyfuels.com



# **Section 15: Regulatory Information**

TSCA: Uranium ore

SARA 311/312: Uranium ore (Acute and Chronic categories)

<u>SARA (TITLE 313):</u> Uranium ore <u>California Prop 65:</u> Uranium ore

#### **Section 16: Additional Information**

<u>Disclaimer:</u> The information herein is believed to be accurate and reliable as of the date compiled. However, Energy Fuels Resources, Inc makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

<u>Prepared by:</u> Chief Chemist and Radiation Safety Officer, White Mesa Mill, Energy Fuels Resources <u>Date Prepared:</u> Version History: 7/22/2024 - Original

## **Section 17: References**

Generic UOC Safety Data Sheet, WNTI Best Practices, Good Practice Guide 2018, World Nuclear Transport Institute, Remo House, 310-312 Regent Street, London W1B 3AX UK, <a href="https://www.wnti.co.uk">www.wnti.co.uk</a>.

Pitchblende ore-silica mixture Safety Data Sheet, NBL Program Office, NBL Program Office U. S. Department of Energy, 1 Science.gov Way, Oak Ridge, TN 37830, 1-240-780-6842, Revision Date: June 24, 2020.

# Attachment B

**Guide 162 from Emergency Response Guidebook** 

# GUIDE RADIOACTIVE MATERIALS 162 (LOW TO MODERATE LEVEL RADIATION)

#### **POTENTIAL HAZARDS**

#### HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation
  exposure, or both external and internal radiation exposure if contents are released.
- Low radiation hazard when material is inside container. If material is released from package or bulk
  container, hazard will vary from low to moderate. Level of hazard will depend on the type and amount of
  radioactivity, the kind of material it is in, and/or the surfaces it is on.
- Some material may be released from packages during accidents of moderate severity but risks to people
  are not great.
- Released radioactive materials or contaminated objects usually will be visible if packaging fails.
- Some exclusive use shipments of bulk and packaged materials will not have RADIOACTIVE labels.
   Placards, markings and shipping papers provide identification.
- Some packages may have a RADIOACTIVE label and a second hazard label. The second hazard is usually
  greater than the radiation hazard; so follow this GUIDE as well as the response GUIDE for the second
  hazard class label.
- Some radioactive materials cannot be detected by commonly available instruments.
- Runoff from control of cargo fire may cause low-level pollution.

#### FIRE OR EXPLOSION

- · Some of these materials may burn, but most do not ignite readily.
- Uranium and Thorium metal cuttings may ignite spontaneously if exposed to air (see GUIDE 136).
- Nitrates are oxidizers and may ignite other combustibles (see GUIDE 141).

#### **PUBLIC SAFETY**

- CALL 911. Then call emergency response telephone number on shipping paper. If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- Stay upwind, uphill and/or upstream.
- Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

#### PROTECTIVE CLOTHING

 Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

#### **EVACUATION**

#### Immediate precautionary measure

Isolate spill or leak area for at least 25 meters (75 feet) in all directions.

#### Large Spill

· Consider initial downwind evacuation for at least 100 meters (330 feet).

#### Fire

 When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

# RADIOACTIVE MATERIALS (LOW TO MODERATE LEVEL RADIATION)

# GUIDE 162

## **EMERGENCY RESPONSE**

#### FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- If it can be done safely, move undamaged containers away from the area around the fire.
- Do not move damaged packages; move undamaged packages out of fire zone.

#### Small Fire

Dry chemical, CO<sub>2</sub>, water spray or regular foam.

#### Large Fire

- · Water spray, fog (flooding amounts).
- · Dike runoff from fire control for later disposal.

#### SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Cover liquid spill with sand, earth or other non-combustible absorbent material.
- · Dike to collect large liquid spills.
- Cover powder spill with plastic sheet or tarp to minimize spreading.

#### FIRST AID

Refer to the "General First Aid" section.

#### Specific First Aid:

- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care
  personnel, equipment or facilities.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the "ERAP" section.

# **Attachment C**

Energy Fuels Resources (USA) Inc. Transportation Policy for Shipments of Uranium Ores to the White Mesa Uranium Mill



# TRANSPORTATION POLICY for Shipments of Uranium Ores to the White Mesa Uranium Mill

Prepared by:



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# **PURPOSE**

The purpose of this policy is to describe the shipping responsibilities and practices to be employed when shipping uranium ore from a mine (the "Mine") by truck to the White Mesa Uranium Mill (the "Mill"). The policy outlines specific shipping precautions and necessary documentation to maintain compliance with applicable requirements of the U.S. Department of Transportation ("DOT") regulations at Title 49 of the Code of Federal Regulations. Safe transportation of uranium ore from the Mine to the Mill is paramount to Energy Fuels Resources (USA) Inc. ("Energy Fuels"), and strict adherence to this policy is required.

# **SCOPE**

This policy encompasses uranium ore shipping and transportation requirements and the specific responsibilities of the Mine operator/owner (the "Mine Operator"), the transport contractor (the "Transportation Contractor") and the Mill personnel with regard to: maintaining exclusive use shipments, personnel training, vehicle marking, labeling and placarding, preparation of shipping papers, transportation requirements, emergency response, radiation control, record retention and other matters.

# **POLICY**

# 1 Summary of Responsibilities

# 1.1 Mine Operator Responsibilities

The Mine Operator will be responsible for:

- a) Providing training to Mine Operator and/or Transportation Contractor personnel relating to the appropriate safe handling practices specific to uranium ores during loading, transport and unloading operations (see Section 3.1.2);
- b) Ensuring that the required shipping papers are completed, signed, and delivered to the transport driver (see Section 7);
- c) Confirming the uranium grade of ore shipments from the Mine and whether or not there is a Reportable Quantity ("RQ") of a hazardous material (see Section 2);
- d) Providing the required placards to the Transportation Contractor (see Section 6); and
- e) Ensuring that gamma and removable contamination limits for ore shipments from the Mine are satisfied (see Sections 10.2 and 10.3).

# 1.2 Transportation Contractor Responsibilities

Transportation Contractor personnel will be responsible for:

- a) Providing appropriate vehicle markings, labeling and placarding (see Sections 4, 5 and 6);
- b) Transporting uranium ore to the Mill in accordance with Section 8 below;
- c) Unloading transported uranium ore at the Mill;
- d) Maintaining exclusive (sole) use of the transport vehicle for uranium ore shipment and providing a closed conveyance trailer while shipping uranium ore to the Mill (see Sections 2 and 8.1);
- e) Carrying and delivering to the Mill a copy of the shipping papers which will accompany the uranium ore shipment (see Section 7);
- f) Ensuring that the training requirements described in Section 3.1.1 are satisfied;
- g) Preparing and adhering to an Emergency Response Plan (see Section 9);
- h) Contacting Energy Fuels personnel listed on the shipping documents and providing emergency response and cleanup personnel should accidental spillage of uranium ore occur during transport to the Mill (see Section 9); and
- i) Requesting an unrestricted use release survey from Mill radiation safety personnel when the transport vehicle is planned for uses other than uranium ore haulage, including when the vehicle is sent in for repairs or servicing (see Sections 10.3.1 and 10.3.2).

# 1.3 The Mill Responsibilities

The Mill personnel will be responsible for:

- a) Working with the Mine Operator to determine the expected grade of the uranium ore and whether or not ore shipments will constitute a Reportable Quantity of a hazardous substance (see Section 2);
- b) Assisting in emergency response situations if accidental spillage of uranium ore during transport has occurred (see Section 9);
- c) Completing radiation surveys of the transport vehicles prior to release from the Mill site for restricted use (see Section 10.3.1);
- d) Completing radiation surveys of the transport vehicles prior to return to service for unrestricted use and shipment of commodities other than uranium ore (see Sections 10.3.1 and 10.3.2); and
- e) Signing and retaining all shipping and survey records pertaining to shipments of uranium ore (see Sections 7 and 11).

# 2 Classification of Ore and Exclusive Use Shipments

Uranium ore that will be shipped from the Mine to the Mill is regulated as a Class 7 radioactive material under the hazardous material regulations in Title 49. Under Title 49 Code of Federal Regulations (CFR) 173.403, uranium ores and concentrates of uranium ore are classified as a Low Specific Activity (LSA)-1 material. As LSA material, uranium ores do not exceed the  $A_2$  quantity of a Class 7 radioactive material, regardless of the grade of the ore or the size of the load, because they are excluded from the definition of  $A_2$  (49 CFR 173.403). This means that the shipments will:

generally be exempt from most of the marking and labeling requirements required by 49 CFR 173.427(a)(6)(vi), but will be subject to placarding requirements (see Section 6 below); must be stenciled or marked "RADIOACTIVE – LSA" and "FOR RADIOACTIVE MATERIALS USE ONLY"; and, if they contain an average grade of 0.28% U<sub>3</sub>O<sub>8</sub> or higher, must also be stenciled or marked with the letters "RQ" (see following paragraph and Section 4 below).

Uranium ore is classified as Class 7 (Radioactive Material) (LSA-1), and as such it is listed on the Hazardous Materials Table in 49 CFR 172.101. Uranium ore is therefore a Hazardous Material as defined in 49 CFR 171.8, and as a result, the shipping papers and emergency response plan required for shipments of hazardous materials under 49 CFR 177.817 and 172.600 are required for each load of uranium ore (see Sections 7 and 9 below). In addition, if the total radioactivity of a truck load or uranium ore containing natural uranium ("Unat") in equilibrium with its daughters exceeds 0.051 curies, each load of uranium ore would be classified as a "Reportable Quantity" or "RQ" of a "Hazardous Substance" under 49 CFR 171.8 <sup>1</sup>. Examples of ore haulage that meet this requirement include:

- Colorado Plateau: If the average ore grade of uranium ore is 0.26% U<sub>3</sub>O<sub>8</sub> or higher, a 38-ton truck load of ore would be classified as a "Reportable Quantity" or "RQ" of a "Hazardous Substance"; and
- Arizona Strip: If the average ore grade of uranium ore is 0.80% U<sub>3</sub>O<sub>8</sub> or higher, a 12.5-ton truck load of ore would be classified as a "Reportable Quantity" or "RQ" of a "Hazardous Substance".

The uranium ore will be consigned as exclusive use shipments of uranium ore in accordance with the provisions of 49 CFR 173.427(a)(6) and will be shipped unpackaged in accordance with the provisions of 49 CFR 173.427(c). Accordingly,

- a) Shipments must be loaded by the Mine Operator or the Transportation Contractor at the Mine and unloaded by the Transportation Contractor at the Mill, in accordance with directions from Mill personnel, from the truck trailer in which it was originally loaded;
- b) The Transportation Contractor must ensure that there is not any leakage or spillage of uranium ore from the truck trailer;
- c) Specific instructions for maintenance of exclusive use shipment controls will be provided by the Mine Operator to the Transportation Contractor with the shipping paper information (see Section 7.2 below);
- d) The shipment must be placarded in accordance with Subpart F of 49 CFR 172 (see Section 6 below);
- e) Shipments of uranium ores regardless of grade or tonnage will not contain an A<sub>2</sub> quantity of any Class 7 Radioactive material, and the shipments will be exempted from the marking and labeling requirements set out in 49 CFR 172 Subparts D and E (see 49 CFR 173.427(a)(6)(vi)), provided that the trailers are stenciled or otherwise marked "RADIOACTIVE-LSA" in accordance with Section 4(a) below; and

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<sup>&</sup>lt;sup>1</sup> To avoid becoming a Reportable Quantity and hence a Hazardous Substance, the total radioactivity of a truck load or uranium ore containing natural uranium ("Unat") in equilibrium with its daughters cannot exceed 0.051 curies, as 0.052 curies constitutes an RQ (see 49 CFR 172.101, Table 2 to Appendix A, note \*\*).

f) Shipments of uranium ores of 36 tons or more in secular equilibrium with an average ore grade of  $0.28\%~U_3O_8$  or more will contain a reportable quantity of a hazardous substance and must be stenciled or otherwise marked with the letters "RQ" (see 49 CFR 173.427(a)(6)(vi)).

# 3 Training Requirements

# 3.1 Shipment Personnel

# 3.1.1 Training Required to be Provided by the Transportation Contractor

In accordance with the requirements of 49 CFR 177.800, 177.816 and 172 Subpart H, each truck driver and any other Transportation Contractor personnel involved in the loading or unloading of uranium ore onto and from the uranium ore truck must be trained in the applicable requirements of 49 CFR Parts 390 through 397 and the procedures necessary for the safe operation of the vehicle. Driver training must include the following subjects:

- a) Pre-trip safety inspection;
- b) Use of vehicle controls and equipment, including operation of emergency equipment;
- c) Operation of the vehicle, including turning, backing, braking, parking, handling, and vehicle characteristics including those that affect vehicle stability, such as effects of braking and curves, effects of speed on vehicle control, dangers associated with maneuvering through curves, and dangers associated with weather or road conditions that a driver may experience (e.g., blizzards, mountainous terrain, high winds), and high center of gravity;
- d) Procedures for maneuvering through tunnels, bridges, and railroad crossings;
- e) Requirements pertaining to attendance of vehicles, parking, smoking, routing, and incident reporting; and
- f) Loading and unloading of materials, including compatibility and segregation of cargo in a mixed load; package handling methods; and load securement.

This training is the responsibility of the Transportation Contractor and may be satisfied by compliance with the current requirements of a Commercial Driver's License with a hazardous materials endorsement.

# 3.1.2 Additional Training to be Given by the Mine Operator

It is the responsibility of the Mine Operator to ensure that Mine Operator and Transportation Contractor personnel involved in loading, transporting and unloading the consigned uranium ore shipment also receive additional specialized training relating to the appropriate safe handling practices specific to uranium ore shipments. A training record will be documented by the Mine Operator.

This training should include, at a minimum, the following radiation safety topics:

a) Basic radiation concepts (alpha, beta and gamma radiation);

- b) Dust and contamination control measures necessary during loading, unloading and uranium ore shipment:
  - o Avoid inhalation of ore dust during loading and unloading operations;
  - o Tarpaulin covers and tailgate closure requirements (i.e. closed transport vehicle);
  - o Avoid spillage onto the vehicle during loading operations; and
  - o Avoid shipment during muddy mine site or road conditions;
- c) Vehicle survey requirements to release vehicles for unrestricted use;
- d) Exclusive use transport provisions; and
- e) Emergency response contact information in the event of accidental uranium ore spillage during transport (including who should be contacted at Energy Fuels and what information should be conveyed).

# 4 Vehicle Marking

Each exclusive use transport conveyance (trailer) shall be marked as follows:

- a) The words "RADIOACTIVE-LSA" must be stenciled or otherwise affixed to the surface or on a label, tag or sign in 3-inch letters in a conspicuous place on both sides of the trailer (see Section 2(e) above); and
- b) The words "FOR RADIOACTIVE MATERIALS USE ONLY" must be stenciled in 3-inch letters in a conspicuous place on both sides of the trailer (see Section 10.3.1(d) below).

In addition, shipments of uranium ores of 36 tons or more with an average ore grade of 0.28% U<sub>3</sub>O<sub>8</sub> or more will contain a reportable quantity of a hazardous substance and must be stenciled or otherwise marked with the letters "RQ" in 3-inch letters in a conspicuous place on both sides of the trailer (see 49 CFR 173.427(a)(6)(vi)).

All such markings must remain affixed to the trailer during the entire period of exclusive use, regardless of whether the vehicle is loaded with uranium ore or not. These markings can be removed from the transport trailer only after the vehicle has been surveyed for unrestricted release at the Mill, at which time the vehicle is free to ship commodities other than uranium ore. **VEHICLES SHALL NOT BE USED FOR THE SHIPMENT OF ANY OTHER MATERIALS UNLESS THEY HAVE BEEN SURVEYED FOR UNRESTRICTED RELEASE BY MILL RADIATION SAFETY STAFF.** Upon release of any vehicles for unrestricted use in accordance with the provisions of Section 10.3.2 below, Mill staff will remove or paint over such markings. However, prior to re-use for transporting uranium ore to the Mill, such markings must be re-affixed to the trailer by the Transportation Contractor.

# 5 Vehicle Labeling

As LSA material, uranium ores do not exceed the  $A_2$  quantity of a Class 7 radioactive material, regardless of the grade of the ore or the size of the load, because they are excluded from the definition of  $A_2$  (49 CFR 173.403). This means that the labeling requirements do not apply to shipments of uranium ores, provided that they are shipped as exclusive use shipments as set out in

Section 2 above, and contain the marking and placarding described in Section 4 above and 6 below (49 CFR 172.400a(a)(7) and 49 CFR 173.427(a)(6)(vi)).

# 6 Vehicle Placarding

Each exclusive use transport conveyance (trailer) with an ore grade above 0.05% shall be placarded in accordance with the requirements of 49 CFR 172.504 as follows:

- Placard name: RADIOACTIVE;
- Placard must meet the design specifications in 49 CFR 172.556;
- Placards must be placed on each side and each end of the load (49 CFR 172.504(a)) (the required placarding of the front of a motor vehicle may be on the front of a truck-trailer instead of or in addition to the placarding on the front of the cargo body to which a truck-tractor is attached (49 CFR 172.516);
- Each placard must be clearly visible from the direction it faces (49 CFR 172.516);
- Each placard must:
  - Be securely attached or affixed thereto or placed in a holder thereon. (see appendix C to 49 CFR Part 172);
  - Be located clear of appurtenances and devices such as ladders, pipes, doors, and tarpaulins;
  - So far as practicable, be located so that dirt or water is not directed to it from the wheels of the transport vehicle;
  - Be located away from any marking (such as advertising) that could substantially reduce its effectiveness, and in any case at least 3 inches (76.0 mm.) away from such marking;
  - Have the words or identification number (when authorized) printed on it displayed horizontally, reading from left to right;
  - Be maintained by the carrier in a condition so that the format, legibility, color, and visibility of the placard will not be substantially reduced due to damage, deterioration, or obscurement by dirt or other matter; and
  - Be affixed to a background of contrasting color, or must have a dotted or solid line outer border which contrasts with the background color;
- Placards must meet the design, size, color and other criteria set out in 49 CFR 172.519; and
- The Mine Operator will provide the Transportation Contractor with the required placards prior to or at the same time the material is offered for transportation, unless the carrier's motor vehicle is already placarded for the material as required by this subpart (49 CFR 172.506).

# 7 Shipping Papers

# 7.1 Material Description & Shipment Information

Each uranium ore shipment must be accompanied with signed shipping papers that comply with the requirements of 49 CFR 172 Subpart C, and shall include the following information (blanks to be filled in by Mine Operator):

•	Date of Acceptance:	
•	Identification Number:	UN 2912
•	Shipping Name:	RQ (if applicable) <sup>2</sup> , Radioactive Material, Low Specific Activity
		(LSA I)
•	Hazard Class:	Class 7
•	Packaging Group:	Bulk – Unpackaged
•	Category of Label Used:	Not applicable
•	Total Activity:	
•	Radionuclide(s):	U-Nat, Pb-210, Po-210, Ra-226, Rn-222, Th-230
•	Number/Type of Packages:	
•	Weight:	
•	Description of Physical Form:	Solid
•	Description of Chemical Form:	U-nat_
•	Transport Index:	
•	Emergency Response Guide:	ERG#162 (May 2024)
•	If Export Shipment:	[Notation of package ID marking, see 49 CFR § 173.473]
•	Emergency Response:	For Hazardous Materials (or dangerous goods) incident spill, leak
		fire, exposure, or accident: Call Energy Fuels at 435-459-9463
		(primary) or 435-678-4114 (secondary).

The shipping papers will be prepared by the Mine Operator. The Transportation Contractor shall ensure that the shipping papers are readily available to, and recognizable by, authorities in the event of an accident or inspection, in accordance with the requirements of 49 CFR 177.817(e).

#### 7.2 Exclusive Use Statement

The following exclusive use statement must be printed onto the shipping papers (49 CFR 173.427(a)(6)(iv)):

This shipment of uranium ore has been consigned by Energy Fuels Resources and is being shipped as an exclusive (sole) use shipment. Accordingly, the contents of this shipment must be loaded at the Mine and unloaded at the Mill, absent any unloading or additional loading prior to delivery at the Mill. The transportation conveyance trailer must be utilized only for uranium ore transport until such time that Mill personnel conduct a survey of the interior and exterior of the trailer and determine that the trailer can be released for unrestricted use. At such time that the trailer is released for unrestricted use, all markings related to the radioactive material shipment must be removed from the conveyance trailer.

<sup>2</sup> If the average ore grade and tonnage results in a Reportable Quantity of natural uranium equal to or greater than 0.052 curies pursuant to 49 CFR 172.101, Table 2 to Appendix A, note \*\*, and is therefore considered a Hazardous Substance, the letters "RQ" must be entered on the shipping paper either before or after the basic description required by 49 CFR 172.202 (see 49 CFR 172.203(c)(2)).

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## 7.3 Certification

The Mine Operator shall certify that the uranium ore is offered for transportation in accordance with the applicable DOT regulations by printing the following certification on the shipping papers (see 49 CFR 172.204(a)(1)):

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

This certification must be legibly signed by an authorized employee of the Mine Operator.

# 8 Transportation Requirements

# 8.1 Vehicles to be Kept Closed at all Times

The trailers must be kept closed at all times, when containing uranium ore and when empty, by use of a tarpaulin or other suitable mechanism, other than loading and unloading, so that there may not be any leakage of radioactive material from the trailer (see 49CFR 173.427(a)(6)(ii)). See also 49 CFR 177.843(b) and 49 CFR 173.443(d).

# 8.2 Transportation Route

The Transportation Contractor shall advise Energy Fuels of the route to be taken from the Mine to the Mill. It should be noted, however, that shipments of uranium ore are not a "highway route controlled quantity" within the meaning of 49 CFR 173.403 and the applicable provisions of Title 49 because the quantity within any single package will not exceed 3,000 times the  $A_1$  or  $A_2$  value of the radionuclides as specified in §173.435 for normal form Class 7 (radioactive) material, or 1,000 TBq (27,000 Ci).

# 8.3 No Unnecessary Delay in Movement of Shipments

As required by 49 CFR 177.800(d), all shipments of uranium ore to the Mill must be transported without unnecessary delay, from and including the time of commencement of loading of the uranium ore until its final unloading at the Mill.

# 8.4 Use of Safe Havens

If necessary, in order to coordinate delivery times at the Mill, the Transportation Contractor may designate suitable safe havens for the temporary storage of transportation vehicles along the transportation route from the Mine to the Mill. The location and use of such safe havens will be subject to the approval of Energy Fuels.

# 8.5 Limited Activity in High or Gusty Winds

Neither the loading of uranium ore at an Energy Fuels Mine nor the unloading of uranium ore at the Mill shall occur in the presence of high or gusty wind, which for purposes of this Policy means

wind exceeding 30 miles per hour over a two (2)-minute average or such lesser wind speed as stipulated in the applicable Mine or Mill air permit or other permit or license. To the extent loading/unloading is still permissible, the Transportation Contractor shall strictly comply with all wind mitigation efforts required by the Mine and/or Mill. The applicable waiting period prior to recommencing loading/unloading, if any, shall also be met.

# 9 Emergency Response

Emergency response in the event of an accident resulting in the spillage of uranium ore (or other spillage during transport) is the contractual responsibility of the Transportation Contractor. Energy Fuels' role in such incidents will be to provide technical support, if required, during the emergency situation and, if necessary, to verify that cleanup requirements have been met. In addition, Energy Fuels must be contacted, at the telephone number listed on the Shipping Papers, as soon as possible in order to coordinate any necessary reporting to regulatory agencies.

The Transportation Contractor shall prepare an Emergency Response Plan for transportation of the uranium ore to the Mill, in accordance with 49 CFR 172 Subpart G, and shall provide a copy of such plan to Energy Fuels for review and approval.

The National Response Center, (toll free) 800-424-8802 or (toll) 202-267-2675, must be notified as soon as practical but no later than 12 hours after the occurrence of an incident listed in 49 CFR 171.15, such as where the general public is evacuated for one hour or more, a major transportation artery or facility is closed or shut down for one hour or more, or suspected radioactive contamination occurs. This will include most spills of uranium ore from a transport vehicle. In addition, a written report must be filed within 30 days of discovery of the incident by the Transportation Contractor in accordance with 49 CFR 171.16.

Further, under 40 CFR 302.6, EPA requires persons in charge of facilities (including transport vehicles, vessels, and aircraft) to report any release of a hazardous substance in a quantity equal to or greater than its reportable quantity in any 24-hour period, as soon as that person has knowledge of the release, to DOT's National Response Center at (toll free) 1-800-424-8802, (toll) 202-267-2675, or (facsimile) 202-267-1322 (see Note to §171.15). These notification requirements, including contact information, shall be included in the Transportation Contractor's Emergency Response Plan.

# 10 Radiation Control

# 10.1 Gamma Radiation Survey

Based upon a typical uranium ore grade of 0.25-1.00%  $U_3O_8$  for uranium ores, the gamma exposure rate from the surface of the transport vehicle is expected to be less than 10 mrem/hr. As a result, the requirements of 49 CFR 173.427(a)(1) that the external dose rate may not exceed an external radiation level of 1,000 mrem/hr at 3 meters (or 10 ft.) from the unshielded material is expected to be satisfied, as are the requirements of 49 CFR 173.427(a)(5) and 173.441(a), which state that under conditions normally incident to transportation:

- a) The radiation level does not exceed 200 mrem/hr at any point on the outer surfaces of the ore truck; and
- b) The transport index does not exceed 10.

It is also expected that the radiation level limitations set out in 49 CFR 173.441(b)(4) (applicable to drivers) will be satisfied by following the measures set out in Section 10.2 below.

# 10.2 Gamma Radiation Surveys (Transportation Index)

It is the responsibility of the Mine Operator to ensure that the radiation levels fall within the applicable limits summarized in Section 10.1 above. At a minimum, the Mine Operator will perform the following surveys at the Mine site on a representative number of uranium ore shipments from the Mine:

- a) A beta/gamma survey will be conducted at various locations on all outer surfaces of the transport vehicle, including the top and underside of the vehicle, on the upper surface of the load or enclosure if used, and on the lower external surface of the vehicle, to ensure that the radiation level does not exceed the 200 mrem/hr limit set out in 49 CFR 173.441(b)(2) at any point on the outer surface of the vehicle;
- b) A gamma survey will be conducted at one meter from all sides of the transport trailer. The average reading in mrem/hr will be recorded as the Transport Index for all uranium ore shipments from the Mine. The Transport Index shall not exceed 10;
- c) A gamma survey will be conducted at various locations 2 meters (6.6 ft.) from the outer lateral surfaces of the vehicle (excluding the top and underside of the vehicle) to ensure that the radiation level does not exceed the 10 mrem/hr limit set out in 49 CFR 173.441(b)(3) at any such location; and
- d) A gamma survey will be conducted within the cab and any other normally occupied space of the transport tractor, to ensure that the average reading does not exceed the 2 mrem/hr limit set out in 49 CFR 173.441(b)(4).

These surveys will be recorded and kept on file.

In addition, the Mine Operator will perform (and document for the record) spot gamma surveys on uranium ore shipments from time to time as it deems appropriate in order to ensure that these regulatory standards are satisfied.

## **10.3** Removable Contamination Surveys

# 10.3.1 Vehicles Used Solely for Purposes of Transporting Ore from the Mine to the Mill.

49 CFR 177.843(a) and 49 CFR 173.443(a) and (d) provide that each motor vehicle used for transporting uranium ore under exclusive use conditions must be surveyed with radiation detection instruments after each use. A vehicle may not be returned to exclusive use transport service, until:

- (a) the radiation dose rate at every accessible surface is 0.5 mrem/hr. or less;
- (b) the level of non-fixed contamination, excluding the interior surfaces of the trailer, may not exceed 2,400 dpm/cm<sup>2</sup>, and must be determined by wiping an area of 300 cm<sup>2</sup> of the surface

concerned with an absorbent material, using moderate pressure, and measuring the activity on the wiping material. Sufficient measurements must be taken in the most appropriate locations to yield a representative assessment of the non-fixed contamination levels. The amount of radioactivity measured on any single wiping material, divided by the surface area wiped and divided by the efficiency of the wipe procedure (the fraction of non-fixed contamination transferred from the surface to the absorbent material), may not exceed the 2,400 DPM/Cm<sup>2</sup> limit at any time during transport. For this purpose the actual wipe efficiency may be used, or the wipe efficiency may be assumed to be 0.10 (see 49 CFR 173.443(a));

- (c) a survey of the interior surface of the trailer shows that the radiation dose rate does not exceed 10 mrem/hr at the interior surface or 2 mrem/hr at 1 meter (3.3 feet) from any interior surface;
- (d) The vehicle is stenciled with the words "For Radioactive Materials Use Only" in lettering at least 7.6 cm (3 inches) high in a conspicuous place, on both sides of the exterior of the vehicle; and
- (e) The vehicles must be kept closed at all times other than loading and unloading.

Mill Radiation Staff will perform surveys on each ore truck prior to its release from the Mill site. In performing such surveys, Mill Radiation Staff will follow existing Mill standard operating procedures.

It should be noted that, in order for vehicles to be released from the Mill site, Mill staff will also be required to survey the vehicles in accordance with the requirements of Nuclear Regulatory Commission Regulatory Guides 1.179, 1.184 and 1.185 ("Reg. Guides"), unless and to the extent exempted by the Utah Division of Waste Management and Radiation Control. Notably, Reg. Guides 1.179, 1.184 and 1.185 do *not* apply to releases of vehicles from Mine sites.

Unless the Transportation Contractor advises Mill staff otherwise, Mill staff will assume that each vehicle released from the Mill site will be returning to use solely for transporting uranium ore from the Mine to the Mill, and will not be released for unrestricted use.

The Transportation Contractor will advise Mill staff prior to sending any vehicle in for repairs or servicing, so that Mill staff can ensure that the vehicle to be serviced or repaired has been released for unrestricted use. No vehicle may be sent in for servicing or repair unless it has been released for unrestricted use by Mill staff.

# 10.3.2 Vehicles That Will Not be Used Solely for Transporting Ore from the Mine to the Mill (Free Release)

If the Transportation Contractor advises Mill personnel that any particular vehicle will not be returning for use solely for purposes of transporting uranium ore from the Mine to the Mill or is to be sent in for servicing or repairs, Mill Radiation Safety staff will survey the vehicle prior to releasing it from the Mill site to ensure that it satisfies these criteria, as well as the applicable provisions of Reg. Guides 1.179, 1.184 and 1.185. In performing such surveys, Mill Radiation Staff will follow existing Mill standard operating procedures.

Once a vehicle is surveyed for unrestricted release in accordance with this Section, Mill staff will remove or paint over the markings on the vehicle described in Section 4 above.

# 11 Records

Records of all shipments, including but not limited to all shipping papers required by 49 CFR 172.200(a), or an electronic image thereof, will be maintained at the Mill office for two years after the material is accepted by the Initial Carrier. Each copy of shipping papers must include the date of acceptance by the Initial Carrier (see 49 CFR 172.201(e)), or for such longer period of time as may be required by applicable regulations.

# 12 Compliance with Laws, Regulations and Permit Requirements

It is the responsibility of the Transportation Contractor to comply with all other applicable laws, regulations and permit requirements relating to the transportation of uranium ore from the Mine to the Mill that are not specifically mentioned in this procedure.

# **Attachment D**

Navajo Nation Release Notification Form – Petroleum

Navajo Nation EPA Navajo Nation **Superfund Program** Phone: (928) 871-6859 Fax: (928) 871-7333

Navajo Nation EPA Navajo Nation Storage Tank Program Phone: (928) 871-7993 Fax: (928) 871-7599

Navajo Nation Dept. Of Emergency Mgt. Phone: (928) 871-6892 Fax: (928) 871-7569

For NNEPA and NNDEM use only Approved By:

**Approval Date:** 

RELEASE NOTIFICATION FORM – PETROLEUM

FOR REPORTING RELEASES OF PETROLEUM EQUAL TO OR EXCEEDING REPORTABLE QUANTITIES UNDER NNCERCLA, 4 N.N.C. § 2201, AND IMPLEMENTING REGULATIONS. THIS FORM MAY ALSO BE USED TO SATISFY WRITTEN REPORTING REQUIREMENTS FOR RELEASES OF PETROLEUM UNDER NNSTA, 4 N.N.C. § 1544, AND IMPLEMENTING REGULATIONS.

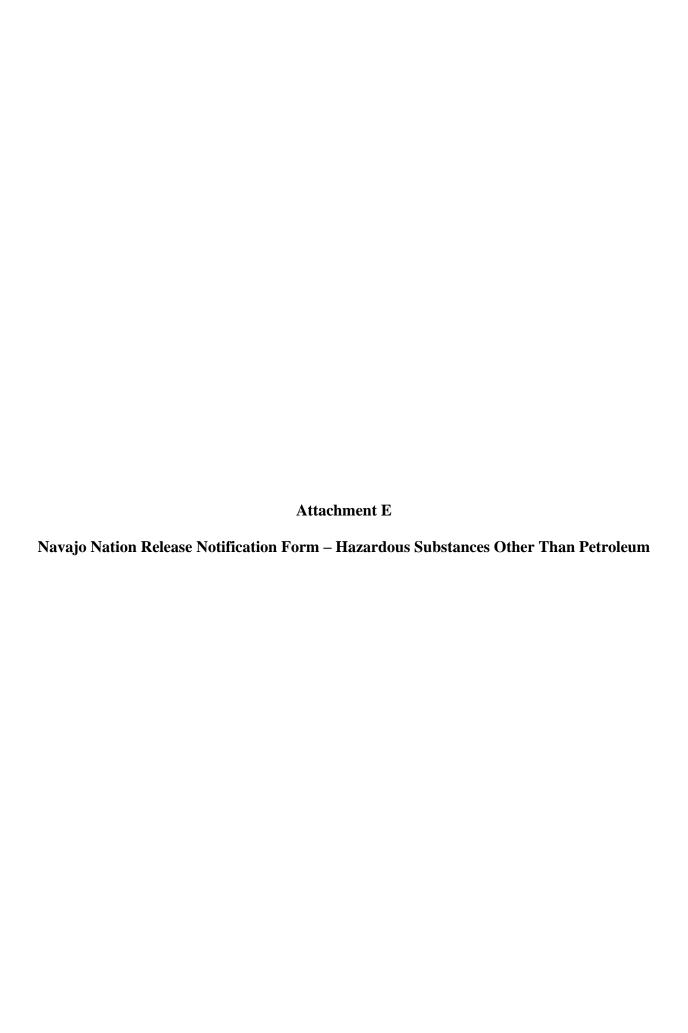
ALSO DE GOLD TO SATISET WATTEN ALL ONTINO REQUIREMENTS FOR RELEASES OF TETROLEOM CADEA MAGIA, 4 MARC. § 1544, AND BALL EMENTINO REQUIREMENTS			
Operator Contact Information			
Name of Company	Designated Contact Person		
Address	Telephone Num	nber	
Facility Name	Facility Type		
Additio	onal Information	for Storage Tanks Only	
Tank Owner		Address of Tank Owner	
Tank Operator		Address of Tank Operator	
Tank Identification Number		Tank System Size	
	Location of	of Release	
Location of release, including description of area (e.g. business site, farm, etc.), conditions (e.g. sandy, rocky, temperature, vegetation, precipitation, slope, etc.), and GPS coordinates:			
If GPS coordinates are not available, please fill in the following: <u>Unit Letter</u> Section Township Range Feet from the North/South Line Feet from the East/West Line Chapter			
Nature of Release			
Type of Petroleum Product Released		Into what Medium/Media?	
Source of Release/Suspected Release (if storage tank, indicate whether from tank, piping, dispenser, etc.)		Volume of Release	
Is Release Confirmed (storage tank only)		Volume Recovered	

Date, Hour, and Duration of Release	Date and Hour of Discovery	
Was Notice Given?	If YES, To Whom?	
If YES, By Whom?	If YES, Date, Hour, and Method of Notice	
Was Spill Contained on Site in a Bermed Area?	Was a Watercourse Reached? If YES, Volume Impacting the Watercourse	
Depth to Groundwater and Direction of Groundwater Flow	Location of Nearest Water Well	
If a Watercourse or Groundwater was Impacted, Describe Fully:		
Describe Cause of Release (for storage tanks, specify if spill, overfill, corrosion, etc.) and Remedial Action Taken to Control Release and Prevent it from Recurring:		
Describe Effects of Release and Cleanup Action Taken:		
Please Add Any Additional Information Relevant to Release:		
Please Attach Additional Sheets As Necessary to Complete Answers to Any of the Questions Above.		
I hereby certify that the information given above is true and complete to the best of my knowledge. The filing of a Petroleum Release Notification Form does not relieve the owner or operator of liability should they fail to adequately investigate and remediate contamination. In addition, the filing of a Petroleum Release Notification Form does not relieve the owner or operator of responsibility for compliance with any other federal, tribal, state, or local laws or regulations, including other reporting requirements.		
Name	Signature	
Title Date		
Phone Number Email Address		

#### Additional Instructions

- 1. This form is intended to provide both operators and the Navajo Nation with the most accurate information available to address releases of petroleum.

  Accordingly, it must be filled out as accurately and completely as possible to ensure compliance with applicable provisions of the Navajo Nation Code and governing regulations.
- 2. Some fields contained in this reporting form may not apply to every type of release. Operators should make every reasonable effort to ensure that all applicable fields are completed and accurate.
- 3. For some fields contained in this reporting form, the operator may need to estimate or approximate the information requested. Operators should make every reasonable effort to ensure that each field is completed with the most accurate and complete information available to them at the time of the report.



Navajo Nation EPA Navajo Nation Superfund Program Phone: (928) 871-6859 Fax: (928) 871-7333

Navajo Nation EPA Navajo Nation Storage Tank Program Phone: (928) 871-7993 Fax: (928) 871-7599 Navajo Nation Dept. Of Emergency Mgt. Phone: (928) 871-6892 Fax: (928) 871-7569 For NNEPA and NNDEM use only Approved By:

**Approval Date:** 

# RELEASE NOTIFICATION FORM - HAZARDOUS SUBSTANCES OTHER THAN PETROLEUM

FOR REPORTING RELEASES OF HAZARDOUS SUBSTANCES, EXCEPT PETROLEUM, EQUAL TO OR EXCEEDING REPORTABLE QUANTITIES UNDER NNCERCLA, 4 N.N.C. § 2201, AND IMPLEMENTING REGULATIONS. THIS FORM MAY ALSO BE USED TO SATISFY WRITTEN REPORTING REQUIREMENTS FOR RELEASES OF HAZARDOUS SUBSTANCES UNDER THE NAVAJO NATION STORAGE TANK ACT, 4 N.N.C. § 1544, AND FOR RELEASES OF EXTREMELY HAZARDOUS SUBSTANCES UNDER EPCRA, 42 U.S.C. § 11004(c).

THIS REPORTING FORM DOES NOT APPLY TO RELEASES OF PETROLEUM UNDER NNCERCLA, 4 N.N.C. § 2201, OR UNDER NNSTA, 4 N.N.C. § 1544. RELEASES OF PETROLEUM SHOULD BE DEPORTED ON THE SEPARATE NNEPA DELEASE NOTIFICATION FORM FOR PETROLEUM

BE REPORTED ON THE SEPARATE NNEPA RELEASE NOTIFICATION FORM FOR PETROLEUM.		
Operator Contact Information		
Name of Company	Designated Contact Person	
Address	Telephone Number	
Facility Name	Facility Type	
Additional Information	for Storage Tanks Only	
Tank Owner	Address of Tank Owner	
Tank Operator	Address of Tank Operator	
Tank Identification Number	Tank System Size	
Location of	of Release	
Location of release, including description of area (e.g. business site, farm, etc.), conditions (e.g. sandy, rocky, temperature, vegetation, precipitation, slope, etc.), and GPS coordinates:		
If GPS coordinates are not available, please fill in the following: <u>Unit Letter Section Township Range Feet from the North/South Line Feet from the East/West Line Chapter</u>		
Nature of Release		
Substance(s) Released	Into what medium/media?	
Whether substance(s) listed pursuant to EPCRA § 11002(a)  Volume of Release		

Source of Release/Suspected Release (if storage tank, indicate whether from tank, piping, dispenser, etc.)	Volume Recovered		
Date, Hour, and Duration of Release	Date and Hour of Discovery		
Was Notice Given?	If YES, To Whom?		
If YES, By Whom?	If YES, Date, Hour, and Method of Notice		
Was Spill Contained on Site in a Bermed Area?	Was a Watercourse Reached? If YES, Volume Impacting the Watercourse		
Depth to Groundwater and Direction of Groundwater Flow	Location of Nearest Water Well		
Any known/anticipated acute or chronic health risks?	If YES, advice regarding necessary medical attention		
If a Watercourse or Groundwater was Impacted, Describe Fully:			
Describe Cause of Release (for storage tanks, specify if spill, overfill, corrosion, etc.) and Remedial Action Taken to Control Release and Prevent it from Recurring:			
Describe Effects of Release and Cleanup Action Taken:			
Describe Health Precautions Taken, if Any, Including Evacuation, as Result of Release:			
Please Add Any Additional Information Relevant to Release:			
Please Attach Additional Sheets As Necessary to Complete Answers to Any of the Questions Above.			

I hereby certify that the information given above is true and complete to the best of my knowledge. The filing of a Hazardous Substance Release Notification Form does not relieve the owner or operator of liability should they fail to adequately investigate and remediate contamination. In addition, the filing of a Hazardous Substance Release Notification Form does not relieve the owner or operator of responsibility for compliance with any other federal, tribal, state, or local laws or regulations, including other reporting requirements.

Name	Signature
Title	Date
Phone Number	Email Address

## Additional Instructions

- 1. This form is intended to provide both operators and the Navajo Nation with the most accurate information available to address releases of hazardous substances. Accordingly, it must be filled out as accurately and completely as possible to ensure compliance with applicable provisions of the Navajo Nation Code and governing regulations.
- 2. Some fields contained in this reporting form may not apply to every type of release. Operators should make every reasonable effort to ensure that all applicable fields are completed and accurate.
- 3. For some fields contained in this reporting form, the operator may need to estimate or approximate the information requested. Operators should make every reasonable effort to ensure that each field is completed with the most accurate and complete information available to them at the time of the report.

# Attachment F

Navajo Nation Emergency Contacts

# Navajo Nation Emergency Contacts, February 10, 2025

**Environmental Protection Agencies** 

NN EPA, Superfund			
Prgm.			
NN EPA, CED			
Arizona State			
Hazardous Materials			
Specialists			
U.S. Environmental	Emergency	(800) 300-2193	
Protection Agency	Response		
	Pacific SW, Region 9		
	US EPA		

Navajo Division of Public Safety

Navajo Division of Public Safety			
NDPS			
NDPS, NPD			
NDPS, NPD			
NDPS, NPD			
NN Fire & Rescue Services			
Department of Emergency Medical Services			
NPD	Kayenta District	(928) 697-5600	
NPD	Tuba City District	(928) 283-3111	
NPD	Shiprock District	(928) 368-1350	

State Department of Public Safety

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AZ DPS District 2	1515 US-89, Page, AZ 86045	(928) 645-2122
AZ DPS District 2	1500 Historic U.S. 66, Williams, AZ 86046	(928) 637-4323
AZ DPS District 2	1100 W. Kaibab Lane, Flagstaff, AZ 86001	(928) 773-3601
AZ DPS District 3	Kayenta, AZ	(928) 679-2558
UT DPS	San Juan County, San Juan, UT	(435) 637-0893