

**Crow Butte Resources, Inc.  
d/b/a Cameco Resources  
Crow Butte Operation**

**SECURITY PLAN**

April 2, 2015

## SECURITY PLAN

### **Purpose and Scope**

Crow Butte Operation (CBO) is committed to:

- Providing employees with a safe, healthful, and secure working environment;
- Maintaining control and security of NRC licensed material;
- Ensuring the safe and secure handling and transporting of hazardous materials;
- Managing records and documents that may contain sensitive and confidential information;

The purpose of this Security Plan is to ensure that CBO operations are conducted in such a manner that these objectives are met.

This plan applies to CBO operations at the Crow Butte Uranium Project and other CBO properties, as appropriate. This plan also applies to the transport of licensed or hazardous materials by CBO employees over public highways.

### **Regulatory Requirements**

#### Security and Control of NRC Licensed Material

CBO is authorized by a license issued by the U.S. Nuclear Regulatory Commission (NRC) to receive, acquire, possess, and transfer natural uranium (“source material”) and byproduct material defined in 10 CFR §40.4 as follows:

*Source Material:* (1) Uranium in any physical or chemical form or (2) ores that contain by weight greater than one twentieth of one percent (0.05%) uranium. Common examples would include uranium in solution, loaded on ion exchange resins, in slurry form, or as dry product.

*Byproduct Material:* The tailings or wastes produced by the extraction or concentration of uranium from any ore processed primarily for its source material content, including surface wastes resulting from uranium solution extraction processes. Common examples would include contaminated equipment, materials, and wastes produced during facility operations.

The NRC requires licensees to maintain control over such licensed material. 10 CFR 20, Subpart I, *Storage and Control of Licensed Material*, requires the following:

§20.1801 Security of Stored Material

The licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.

§20.1802 Control of Material not in Storage

The licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage.

Stored material would include uranium packaged for shipment from the facility or byproduct materials awaiting disposal. Examples of material not in storage would include yellowcake slurry or loaded ion exchange resin removed from the restricted area for transfer to other areas.

Security Requirements for DOT Hazardous Materials

CBO routinely receives, stores, uses, and ships hazardous materials as defined by the U.S. Department of Transportation (DOT). In addition to the packaging and shipping requirements contained in the DOT Hazardous Materials Regulations (HMR), 49 CFR 172, Subpart I, *Security Plans*, requires that persons that offer for transportation or transport certain hazardous materials develop a Security Plan. Shipments may qualify for this DOT requirement under the following categories:

- §172.800(b)(4) A shipment of a quantity of hazardous materials in a bulk package having a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or more than 13.24 cubic meters (468 cubic feet) for solids;
- §172.800(b)(5) A shipment in other than a bulk packaging of 2,268 kg (5,000 pounds) gross weight or more of one class of hazardous material for which placarding of a vehicle, rail car, or freight container is required for that class under the provisions of subpart F of this part;
- §172.800(b)(7) A quantity of hazardous material that requires placarding under the provisions of subpart F of this part.

DOT requires that Security Plans assess the possible transportation security risks and evaluate appropriate measures to address those risks. All hazardous materials shippers and transporters subject to these standards must take measures to provide personnel security by screening applicable job applicants, prevent unauthorized access to the hazardous materials or vehicles being prepared for shipment, and provide for en route security. Companies must also train appropriate personnel in the elements of the Security Plan.

## **Responsibilities**

### Mine Manger

The Mine Manger will ensure that the individuals responsible for implementing this Security Plan have the appropriate training and resources required.

### SHEQ Manager

The SHEQ Manager has overall responsibility for the implementation of the Security Plan. The SHEQ Manager will periodically review this plan for improvements. In addition, the SHEQ Manager will be responsible for reviewing Security Plans submitted by carriers that are contracted to transport materials covered by this plan.

### Individual

Individuals whose job functions involve maintaining control of licensed material or shipping and transporting radioactive materials are responsible for ensuring that the security requirements of this plan are implemented.

## **Permit Area and Facility Security**

CBO provides adequate measures to ensure the safety and security of employees, contractors, visitors and CBO equipment and facilities. This section was developed to explain the general security procedures and guidelines that apply to the physical structures and facilities within the permit area. Following are the guidelines and procedures that apply to security issues related to CBO physical facilities:

### Central Processing and Restoration Facility Areas

All Central Processing and Restoration facility areas where source or byproduct material is handled are fenced. The main access road is equipped with a locking gate. The access road and areas around the Central Processing facility are monitored by strategically placed surveillance cameras. A 24-hour per day 7-day per week staff is on duty at these facilities.

Plant Operators perform an inspection to ensure the proper storage and security of licensed material at the beginning of each shift. The inspection determines whether all licensed material is properly stored in a restricted area or, if in controlled or unrestricted areas, is properly secured. In particular, Operators will ensure that loaded ion exchange resin, slurry, drummed yellowcake, and byproduct material is properly secured. If licensed material is found outside a restricted area, the Operator ensures that it is secured,

locked, moved to a restricted area, or kept under constant surveillance by direct observation or surveillance cameras. The results of this inspection are documented in the Control Room Log Book.

### Mine Units and Wellhouses

Lixiviant is found in injection piping in the wellfields, wellhouses and trunklines to the Central Processing Plant and Restoration Building. All mine units and wellfields are fenced and all entry gates have signs posted restricting public access. Each wellhouse is locked with an electronic keypad. The mine site is staffed 24-hours a day, 7-days per week. During each shift an inspection is performed to ensure each wellhouse is secure, free of leaks, and to verify correct pressures and settings are maintained. During the shift inspection, wellfields (Mine Units) are monitored for trunkline leaks and to monitor for unauthorized access. Inspections are documented on the Shift Wellfield Inspection sheet and the Control Room Log Book. Nonconformities are reported to appropriate supervisors and site management for further evaluation and corrective actions if necessary.

### Office Building

There is a reception area located at the main entrance into the office building. All other entrances are locked during off-shift hours. There are a limited number of traceable keys to the office and they are given out to select employees. The main door and the door to the Central Plant facility entrance are also locked with an electronic keypad.

Visitors entering the office are greeted by the receptionist and announced to the receiving person. All visitors are required to sign the access log and indicate the purpose of their visit and the employee to be visited. The person being visited is responsible to supervise the visitors at all times when they are on site. Visitors are only allowed at the facility during regular working hours unless prior approval is obtained from the Mine Manager or the SHEQ Manager.

### **Driver, Cargo and Equipment Security**

Transport of licensed/hazardous material by CBO employees is generally restricted to moving ion exchange resin from a Satellite facility to the Central Processing Plant or transferring contaminated equipment between company facilities. This transport generally occurs over short distances through remote areas. Therefore, the potential for a security threat during transport by CBO vehicle is minimal. The goal of the driver, cargo, and equipment security measures is to ensure the safety of the driver and the security and integrity of the cargo from the point of origin to the final destination by:

- Clearly communicating general point-to-point security procedures and guidelines to all drivers and non-driving personnel;
- Providing the means and methods of protecting the drivers, vehicles, and customer's cargo while on the road; and
- Establishing consistent security guidelines and procedures that shall be observed by all personnel.

## Locked and Secured Equipment

For the security of all tractors and trailers, the following must be adhered to:

- If material is stored in the vehicle, access must be secured at all openings with locks and/or tamper indicators;
- Off-site tractors will always be secured when left unattended with windows closed, doors locked, the engine shut off, and no keys or spare keys in or on the vehicle;
- The unit is to be kept visible by an employee at all times when left unattended outside a restricted area.

The security guidelines and procedures apply to all transport assignments. All drivers and non-driving personnel are expected to be knowledgeable of, and adhere to, these guidelines and procedures when performing any load-related activity.

## **Training**

All drivers and employees are required to attend training upon employment in accordance with the training requirements specified in SHEQMS Program Volume VII, *Training Manual*. The training includes (but is not limited to):

- The need for awareness;
- Security requirements in this plan;
- Employee, material, and equipment security;
- Specialized “Hazardous Material” training required under the DOT HMR;
- Workplace violence

## Hazardous Material Control and Training

Hazardous materials and specialized radioactive shipments (Class 7) training sessions are conducted for all employees involved in handling, packaging, shipping, and transporting hazardous materials as defined by DOT.

The training includes all regulatory requirements of the following:

Emergency Preparedness procedures prepared for use in the event of an emergency involving a radioactive materials shipment and are contained in SHEQMS Program Volume VIII, *Emergency Manual*. These procedures contain the emergency contact and product information necessary to respond in an emergency. Copies of this material are provided in the transportation packages for use by drivers.

All key management personnel are trained in Emergency Response. Periodic meetings are held to review and modify procedures, as required. Key management personnel are available for emergency

response through the Emergency Notification procedures in SHEQ Program Volume VIII, *Emergency Manual*; Chapter 10.