URANIUM NORTH RESOURCES CORPORATION
RADIATION PROJECTION PLAN
SOUTH BAKER (DUBAWNT LAKE) PROJECT

MAY 2008

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1.0 PROJECT SUMMARY

The South Baker (Dubawnt) Project is an advanced exploration program. One component of the program is the search for uranium deposits, therefore procedures have been established to provide a safe workplace for employees while minimizing disturbances or harm to the natural environment. The procedures in place will be reviewed and amended as needed if this program is successful in identifying a deposit warranting a more rigorous radiation protection plan.

All work on this program will be based out of a camp located in North West Territories with field work conducted on exploration permits 5735, 5741, 5748, 5766, 5768 and 7030 located in Nunavut. Exploration activities in the form of ground geophysical surveys and diamond drilling is planned for the areas marked on the attached Figure. The object of the exploration is the discovery of economic mineral deposits. Due to the size of the project area it is expected that these activities will continue for many years. Approximately 20 diamond drill holes are planned for the 2008 field season. Field exploration will also consist of field mapping, prospecting, ground geophysics, soil and till sampling during the summer months.

A Spill Contingency Plan, Abandonment and Reclamation Plan, and a Wildlife Mitigation Plan were prepared as supplements to the licence and permit applications that have been submitted. Safety manuals and radiation protection guidelines for uranium exploration were prepared as supplements to the licence and permit applications that have been submitted.

2.0 HUMAN HEALTH AND SAFETY

The information contained in this document is compiled from several sources, mainly: the Canadian Nuclear Safety Commission (CNSC), Canadian Centre for Occupational Health and Safety (CCOHS), United States Environmental Protection Agency (U.S. EPA) and Cameco Corporation (Cameco).

It should be noted that the CNSC no longer regulates uranium exploration properties. However, transport of mineralized core and samples is governed by the *Packaging and Transportation of Nuclear Substance Regulations*, administered by the CNSC. Uranium North Resources Corp. is currently registering with the National Dosimetry Services, Occupational Radiation Hazards Division of Health Canada (NDS).

The U.S. EPA recognizes that there are 2 sources of radiation:
- Natural Radiation
- Nuclear Reactor Radiation

For the purposes of this document, only the Natural Radiation sources will be discussed. Ionizing radiation is often just referred to as radiation. The primary radioactive elements found in the earth's crust are uranium, thorium and potassium and their radioactive derivatives. These elements emit alpha and beta particles and gamma rays. The following information is direct from the U.S. EPA Radiation Information publication:

Alpha Particles

Alpha particles are energetic, positively charged particles (helium nuclei) that rapidly lose energy when passing through matter. They are commonly emitted in the radioactive decay of the heaviest radioactive elements such as uranium and radium as well as by some manmade elements. Alpha particles lose energy rapidly in matter and do not penetrate very far, however they can cause damage over their short path through tissue. These particles are usually completely absorbed by the outer dead layer of human skin and so, alpha emitting radioisotopes

are not a hazard outside the body. However, they can be harmful if they are ingested or inhaled. Alpha particles can be stopped completely by a sheet of paper.

Beta Particles
Beta particles are fast moving, positively or negatively charged electrons emitted from the nucleus during radioactive decay. Humans are exposed to beta particles from manmade and natural sources such as tritium, carbon-14 and strontium-90. Beta particles are more penetrating than alpha particles, but are less damaging over equally travelled distances. Some beta particles are capable of penetrating the skin and causing radiation damage, however, as with alpha emitters, beta emitters are generally more hazardous when they are inhaled or ingested. Beta particles travel appreciable distances in air, but can be reduced or stopped by a layer of clothing or by a few millimetres of a substance such as aluminum.

Gamma Rays
Like visible light and x-rays, gamma rays are weightless packets of energy called photons. Gamma rays often accompany the emission of alpha or beta particles from a nucleus. They have neither a charge nor a mass and are very penetrating. One source of gamma rays in the environment is naturally occurring potassium- 40. Manmade sources include plutonium-239 and cesium-137. Gamma rays can easily pass completely through the human body or be absorbed by tissue, thus constituting a radiation hazard for the entire body. Several feet of concrete or a few inches of lead may be required to stop the more energetic gamma rays.

Uranium North Resources Corp. is committed to providing a safe workplace for exploration personnel. Although the goal of any exploration program is the discovery of a new deposit, it is important to protect the people and to minimize the impact to the environment. Radiation exposure can be controlled and minimized by reducing the time spent in contact with radioactive material, maintaining safe and approved distances and monitoring.

Exposure to alpha and beta particles can be controlled by wearing proper clothing and ensuring frequent laundering of the clothing. Hand washing is extremely important and eating, drinking and smoking is to be avoided while working around radioactive material. Exposure to gamma rays is controlled by maintaining a safe distance and limiting the time spent in contact with any radioactive source ("ALARA"). Monitoring exposure with the Dosimeter badges (TLD badges) is the method used in the South Baker Project by Uranium North Resources.

2.1. Handling and Logging of Radioactive Rocks and Drill Core

The following procedure for handling and logging of radioactive rocks (drill core, hand samples etc.) have been developed by Cameco Corp. Uranium North Resources Corp. is adopting these protocols for their uranium exploration camp. It is the responsibility of the Project Manager to ensure that all personnel are made aware of the current procedures, and to ensure compliance and updating of the protocols.

PROCEDURE
1. All employees who work with radioactive rocks must wear TLD badges.
2. When working with radioactive materials, safety glasses, work gloves and coveralls will be worn. Gloves and coveralls should be laundered and/or replaced regularly. These gloves, coveralls and other exposed outerwear will not be worn in the common areas of the camp.
3. Wash hands well with soap and water after handling radioactive material.
4. Do not eat, drink or smoke when handling or working near radioactive material.

5. Ensure that the core logging areas have proper ventilation to ensure constant air turnover.
6. Store radioactive core at least 30m away from the main camp area. Post the storage area and the core-logging tent as radioactive areas.
7. Do not move or store radioactive core unless in core boxes secured with wood or Plexiglas lids.
8. Follow all regulations and procedures regarding the shipment of radioactive materials.
9. A summary of Procedures for Handling and Logging of Radioactive Core will be posted prominently at the camp.

3.0 ENVIRONMENTAL CONSIDERATIONS

Uranium North Resources Corp. will establish a suitable core storage area for radioactive core with contact dose rates greater than 5 uSv/h. This area will have the appropriate containment systems in place and be located at a **minimum** of 100 metres from the normal high water mark of any water body and will have appropriate signage. Additional measures may be required dependent on the uranium concentration of the rocks. These will be discussed with the regulatory Agencies as necessary.

3.1. Drill Procedures

As with all drilling procedures, at each drill site a suitable natural depression will be used to serve as a sump for the disposal of cuttings, sludge and return water that cannot be recirculated during the drilling process. The sump will be located at a **minimum** of 31 metres above the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created. Upon completion of the hole, the sump will be restored as required to the pre-existing natural contour of the land.

If uranium mineralization is encountered in a drill hole, the drill mud solids and/or cuttings with a uranium concentration greater than 0.05 per cent will be collected in appropriate containers and stored in the radioactive core storage area.

Any drill hole that encounters mineralization with a uranium content greater than 1 .0 per cent over a length of > 1.0 metre, and with a metre-per-cent concentration > 5.0, will be sealed by grouting over the entire length of the mineralization zone and not less than 10 metres above or below each mineralization zone. The top 30 metres of the hole within bedrock will also be sealed by grouting once drilling is complete.

3.2. Core Storage

Once the uranium content has been established by assaying, a decision will be made on the safe storage arrangements of the core. This core storage area will be located at a minimum of 31 metres from any other working structure. Additionally, radiation levels must be reduced to less than 1.0 μSv measured at 1 metre from the surface and in no instance will the level be allowed to exceed 2.5 μSv.

3.3. Spills

In the event of a spill, radioactive materials will e collected and necessary site remediation undertaken to meet the site abandonment criteria of less than 1uSv/h at a height of 1m above background. To the greatest extent possible, all spill affected areas will be decontaminated.

3.4. Shipping and Transport

The shipping of radioactive materials (Class 7) from the Project site is controlled by the CNSC *Packaging and Transport of Nuclear Substances Regulations* and Transport Canada's *Transportation of Dangerous Goods Act* and *Regulations*. The *Regulations* stipulate that Low Specific Activity consignments will be shipped as Excepted Packages if the radiation on the external surface does not exceed 5μSv/hr. The container must bear the UN Number PTNSR 17(2) and contain a marking of "radioactive" on an internal surface that is visible upon opening the package. The Company users GR135 gamma ray spectrometers manufactured by Exploranium Canada to determine dose rates in uR/h converted into uSv/h. The Project Manager has a certificate in the Packaging & Transport of Radioactive Materials.