



Regulating Uranium Production: Mining, Transportation, Trade and Control



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Outline

- General Information
- Regulating mines – then and now
- Modern regulatory issues in uranium
 - Environmental, worker protection
 - Waste
 - Transport
 - Non-proliferation, fuel supply
- Indigenous Rights and Mining
- Responsible Business Conduct – Human Rights / Corporate Social Responsibility
- Some concluding thoughts





Some Terminology

- **uranium**: natural element, common in most of the Earth's rock, soils, rivers, oceans – it is a factor of its concentration in natural deposits, as well as the price of uranium, that determines whether it is feasible to extract

- average-grade ore – from 0.1% uranium, fairly common today
- very high-grade ore – up to 20% uranium, Athabasca basin, Canada

Uranium is of regulatory interest and importance once it is part of the nuclear fuel cycle – or, once it is to be extracted, as its potential to generate energy is its major use

- **tailings**: waste that is produced from the uranium milling process – includes heavy metals, radium

- **radon**: radon is produced by the decay of uranium; radon gas is released into the air when uranium ore is mined and, to a lesser extent, during the production of uranium reactor fuel

- uranium that has been mined and milled is **uranium concentrate** (U_3O_8) or **yellowcake**; several further steps are required before uranium may be used in a reactor as nuclear fuel



Uranium at the "Front End" of the Fuel Cycle

Mining



Rock containing on average 0.1-19% uranium (uranium ore) is extracted from the ground. The ore is sent to a regional mill.

Milling



Uranium ore is ground and the uranium (U_3O_8) is chemically separated from most other constituents. Uranium concentrate, containing approximately 98% uranium (yellowcake) is shipped to a refinery.

Refining



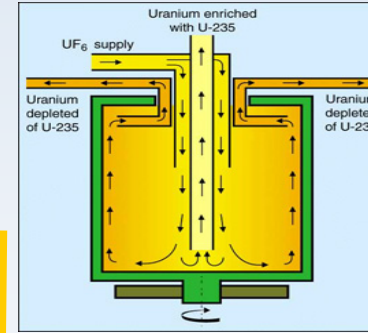
The remaining contaminants in the uranium concentrate are chemically separated from the uranium. The purified uranium (UO_3) is shipped to a uranium conversion facility

Conversion



The chemical form of uranium is converted to UO_2 (for CANDU reactor fuel) or to UF_6 (for enrichment).

Enrichment



Fuel assembly



The fuel bundles are shipped to a nuclear generating station

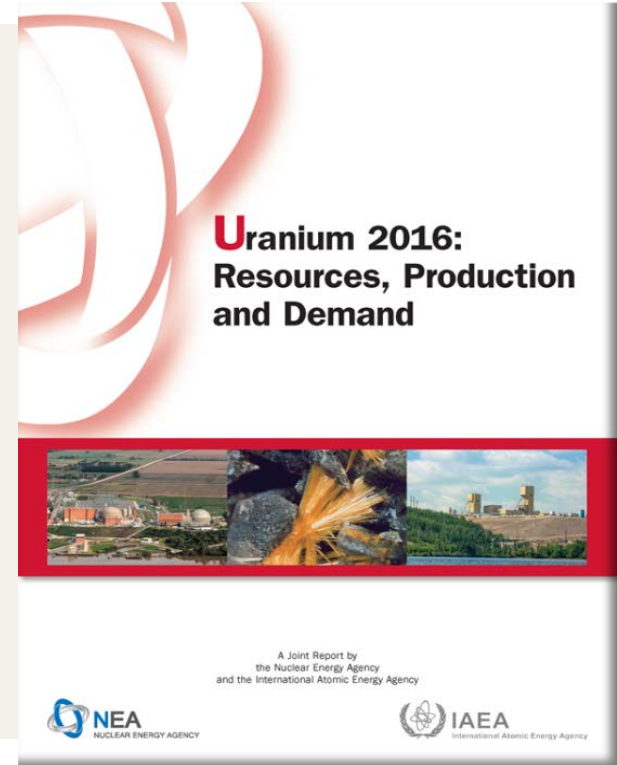


Uranium Market Information and Data

- Resources, production, demand – the “Red Book”
- Uranium supply for energy security – statistical profile of the world uranium industry

Resources:

- Identified resources are sufficient for “over 135 years of supply” for global nuclear power fleet
- But this depends on timely investment, and challenges remain in a market with “high levels of oversupply and inventories, resulting in continuing pricing pressures”
- Identified resources have changed little over 2 years – lower investment and exploration efforts
- Exploration and mine development expenditures up 10%, majority made by China





Current Red Book Information – Production

- Production has decreased 4.1% since last Red Book, but still above 2011 level
- Production in 21 countries – top 6 countries produce 90%:
 - Kazakhstan – 40%
 - Canada – 23%
 - Australia – 10%
 - Niger – 6%
 - Namibia – 6%
 - Russia – 5%
- Mining methods:
 - *In situ* leach – 51%
 - Underground – 27%
 - Open-pit – 14%
 - By-product – 7%
- World production has varied between 70% and 80% of production capability
- Environmental and social aspects of uranium production are of ever-increasing importance, especially for newer mining countries



Current Red Book Information – Demand

Will uranium supplies be adequate for future needs of nuclear power?

- Currently defined resource base – existing, committed, planned and prospective mines – will meet high case uranium demand, to 2035.
- Demand projections have a lot of uncertainty:
 - Asia, Middle East – capacity growth will increase uranium demand
 - North America – capacity estimate between same and 11% increase
 - EU – capacity estimate between 48% decrease and 2% increase
- Market transition in future from supply-driven to demand-driven?

“Regardless of the role that nuclear energy ultimately plays in meeting future electricity demand, the uranium resource base... is more than adequate to meet projected requirements for the foreseeable future. The challenge in the coming years is likely to be less one of adequacy of resources than adequacy of production capacity development due to poor uranium market conditions.”



Some 2018 Developments

RESOURCES –

- Cost-effective method of extracting uranium from seawater?
 - US Dept of Energy (Pacific Northwest National Laboratory) and American company LCW Supercritical Technologies used acrylic yarn to absorb, then extract, uranium from ordinary seawater
 - 4 billion tons of uranium in seawater – 500 times more uranium in the sea than could be mined on land

DEMAND –

- Some active uranium mine/mill operations in Canada have imposed temporary shutdown of operations
 - Global price is not supportive of production – low demand and oversupply

The next edition of the 'Red Book' to be expected by end-2018



Uranium Mining Regulation: Part of Nuclear Law

Commonalities with other aspects of nuclear law:

- Worker safety and radiation protection
- National interest in control over the resource
- Non-proliferation and export control
- Radioactive waste – low-activity, high-volume, long-lived
- Key part of nuclear fuel cycle
- Environmental protection
- Social acceptance





Past Uranium Mining vs. Uranium Mines Today

- Legacy sites: old mining practices, Cold War secrecy, lack of remediation, no closure plans, worker exposures
- New sites: environmental stewardship, site rehabilitation, social responsibility, financial guarantees, internationalized standards, prevention and mitigation of risks to health, environment – highly regulated
- Canadian example:
Rio Algom v. Canada, 2012 ONSC 550
(Jan 4, 2012 decision of Ontario Superior Court)



Rio Algom v. Canada, 2012 ONSC 550 not the law that's interesting, but the facts

- **1954-1972**: Rio Algom sold >65M pounds of uranium oxide to a Canadian government-owned (Crown) corporation, which in turn (and for no profit), sold the uranium to the U.S. Atomic Energy Commission to build nuclear arsenal in the Cold War – the “Cold War contracts”
- Rio Algom made >\$72M on the contracts based on a formula meant to incentivize the industry and turn a profit for them – to create a uranium mining industry in Canada
- Price formula included cost of tailings management – this was rudimentary at the time
- **1990s**: new regulations – to remedy environmental harm caused by radioactive waste and ineffectively treated mine tailings – Rio Algom complied
- **2000**: *Nuclear Safety and Control Act* – licence to decommission required, new standards for rehabilitation
- Rio Algom sues Canada – Government indemnified company, as an implied term of Cold War contracts?
- Legal arguments fail – Rio Algom must hew to new environmental standards for mine rehabilitation, Canada is not required to indemnify it
- Rio Algom's costs of managing tailings will continue **in perpetuity** – decision estimated future cost at approx. \$100M



Decommissioning and Restoration

- Legacy sites needing remediation are all over the world, a remnant of past inappropriate standards
- Governments may finance necessary cleanup – e.g., European Bank for Reconstruction and Development fund for Central Asia sites, set up in 2015
- Corporate responsibility to pay – e.g. US EPA claims to companies fund cleanup of >500 abandoned uranium mines in Navajo Nation region of US
- Remediating former sites can be more technically challenging than new sites
- New mine acceptance judged by treatment of old sites
- These photos - modern mine decommissioning project



Cluff Lake 1999



Cluff Lake 2014



Regulating Uranium Mine Operations Today





Regulating Uranium Mining



Protecting workers

- Control of radioactive materials
- Control of workers' radiation doses
- Measurement of radiation
- Conventional health and safety



Protecting the public

- Measure key parameters in the environment
- Estimate potential dose to the public

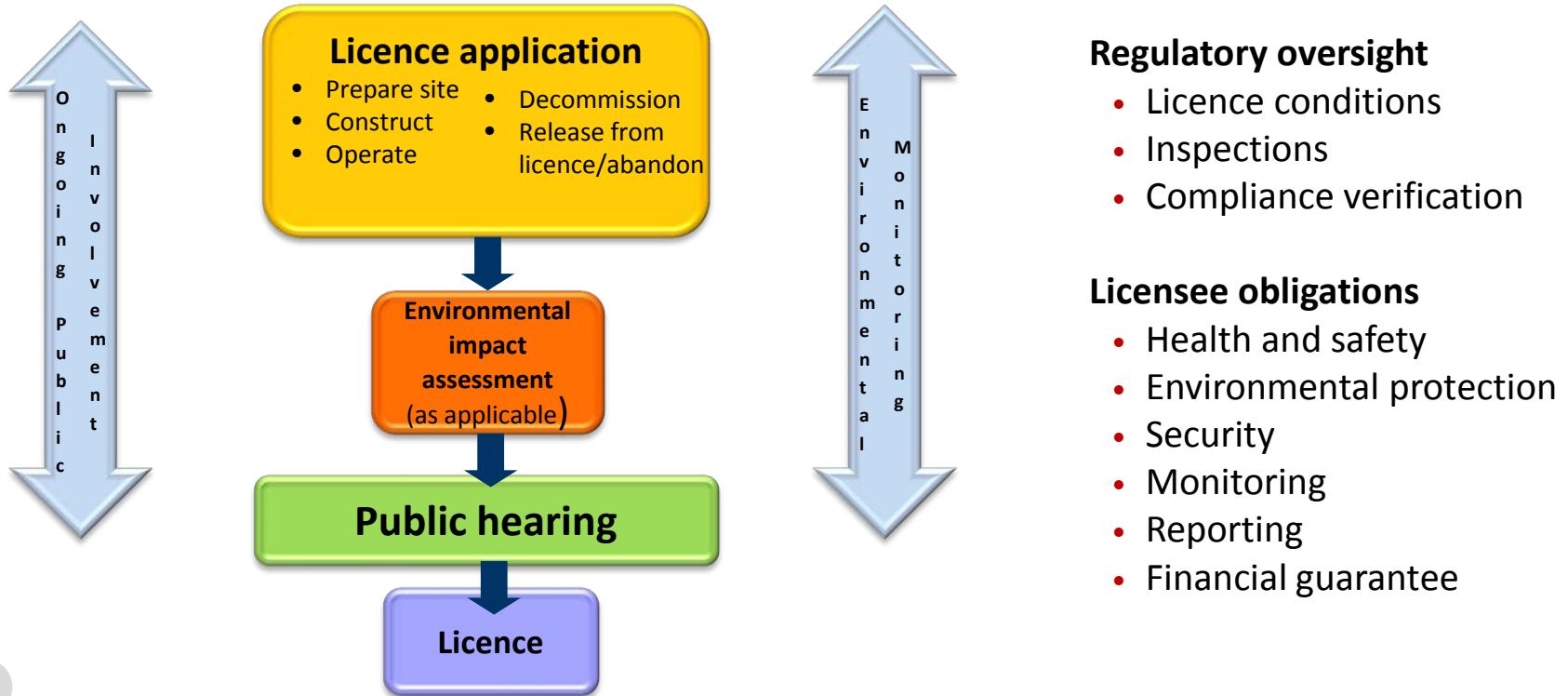


Protecting the environment

- Control releases to the air, surface water, ground water
- Measure releases: effects
- Take action, when required
- Site decommissioning, remediation planned and costed

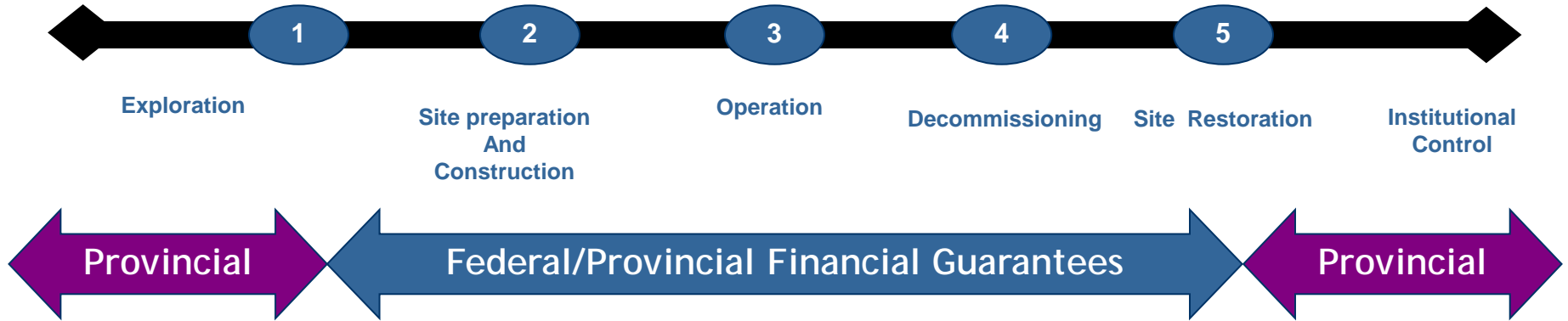


Licensing Uranium Projects in Canada- Lifecycle Approach





Uranium Mines and Mills: Financial Guarantees - Life cycle Management



Regulatory responsibility is transferred to the province once the site has been adequately decommissioned, for monitoring and maintenance



Environmental Impact Assessment

- International conventions:
 - **Aarhus Convention** (access, public participation)
 - **Espoo Convention** (environmental assessment (EA) in transboundary context); **Kiev Protocol**
- Environmental protection: a tenet of nuclear law
- Environmental impact assessment (EIA) is a process to predict the environmental effects of proposals:
 - assessing whether proposal would cause adverse effects – physical, biological, human environment
 - ensuring public discourse on a project
 - crafting monitoring programs, mitigation measures, remediation plans – lifecycle approach
- International Environmental Standards – **ISO 14001**: environmental management system, to measure and improve environmental impact





EIA Components for Uranium Production

- Baseline data – topography, hydrogeology, flora, fauna, local air, water, soils, biota
- Detail of ore body, mining method proposed, milling process, transportation, plan for life of site
- Socio-economic issues – need to include potential impacts on culture, potential positive economic effects, long-term plan for land
- Cumulative impacts
- EIA is a planning tool, with procedural and substantive elements



EIA Components for Uranium Production

- EIA links social impact (political) to environmental protection (scientific)
- “Social acceptability” of uranium mining –
 - Ranger Inquiry (Australia):
1975–77 Fox Report – ethics of mining, social and Aboriginal opposition
 - Matoush Project (Canada):
2013 Quebec government decision: inadequate social acceptability; moratorium on uranium exploitation

Ressources Strateco Inc. v. Procureure Générale du Québec, 21 June 2017, Que.S.C., file 200-17-022389-159

- Strateco unsuccessfully sought \$200M in damages for failure to authorize advanced exploration on the basis that the project lacked social acceptance
- The governing statute (*Loi sur la qualité de l’environnement*) did not include or define the term “social acceptability”; the Court was nonetheless satisfied both that the concept came from the statutory principles, and that the environment must include the social environment.
- Just as important, the Court found that Strateco had, as evidenced from its own reports and statements, acknowledged the importance of social acceptability of the project throughout its work in the region

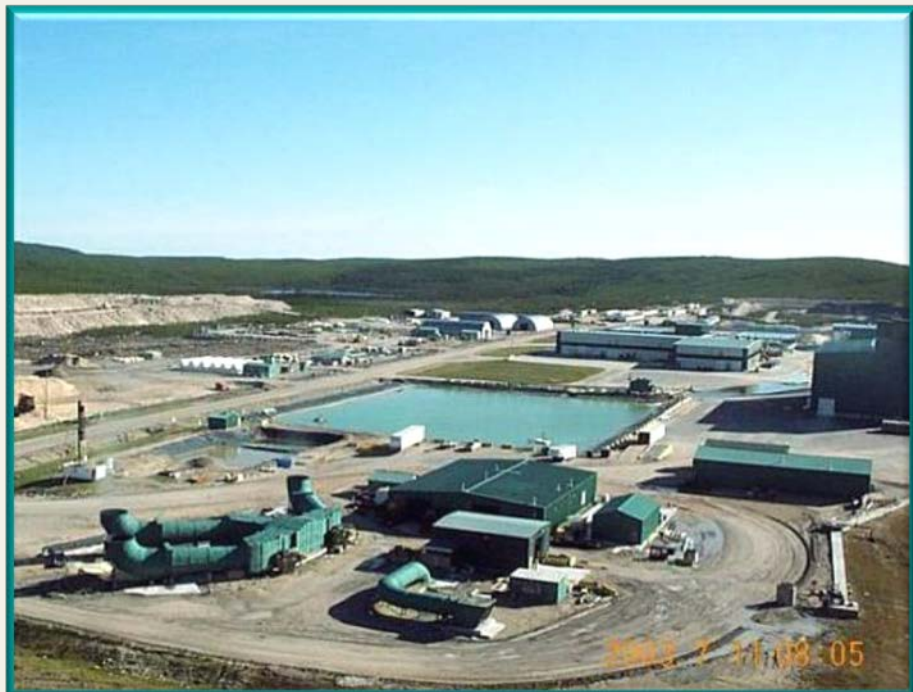


Construction – Cigar Lake Mine





Operation – McArthur River Mine





Mining – Drill and Blast



A person operates a scoop tram remotely

Radiation Protection

- Distance – The person maintains a line of sight with the scoop tram but is far away from the muck pile.
- Shielding – The walls are covered with cement.
- Reduction – The muck pile is kept damp to reduce dust.
- Dilution – The tunnel where the worker is working is ventilated with fresh air.

Health and Safety

- The orange plates and screening provide ground support.
- Personal protective equipment



Operation – Key Lake Mill





Operation – McClean Lake Mine and Mill





International Guidance and Industry Tools

- *Managing Environmental and Health Impacts of Uranium Mining* (NEA, 2014) <http://www.oecd.org/publications/managing-environmental-and-health-impacts-of-uranium-mining-9789264216044-en.htm>
- *Lessons Learned from Environmental Remediation Programmes* (IAEA Nuclear Energy Series No. NW-T-3.6, 2014) <http://www-pub.iaea.org/books/IAEABooks/10509/Lessons-Learned-from-Environmental-Remediation-Programmes>
- *Sustaining Global Best Practices in Uranium Mining and Processing: Principles for Managing Radiation, Health and Safety, Waste and the Environment* (WNA Policy document, 2010) <http://www.world-nuclear.org/our-association/publications/position-statements/best-practice-in-uranium-mining.aspx>

“This document holds the status of a policy and ethical declaration by the full WNA membership... In the category of uranium miners, the WNA membership includes all major uranium mining and processing companies as well as many mid-size and junior companies.

The principles affirmed here are supported by key relevant international organizations, including the International Atomic Energy Agency. Indeed, these principles have been affirmed as an outgrowth of an IAEA cooperation project aimed at encouraging expanded exchanges between professionals from governments and industry. These principles are also supported by the global mining community through relevant international and national associations that cover uranium mining and processing.”



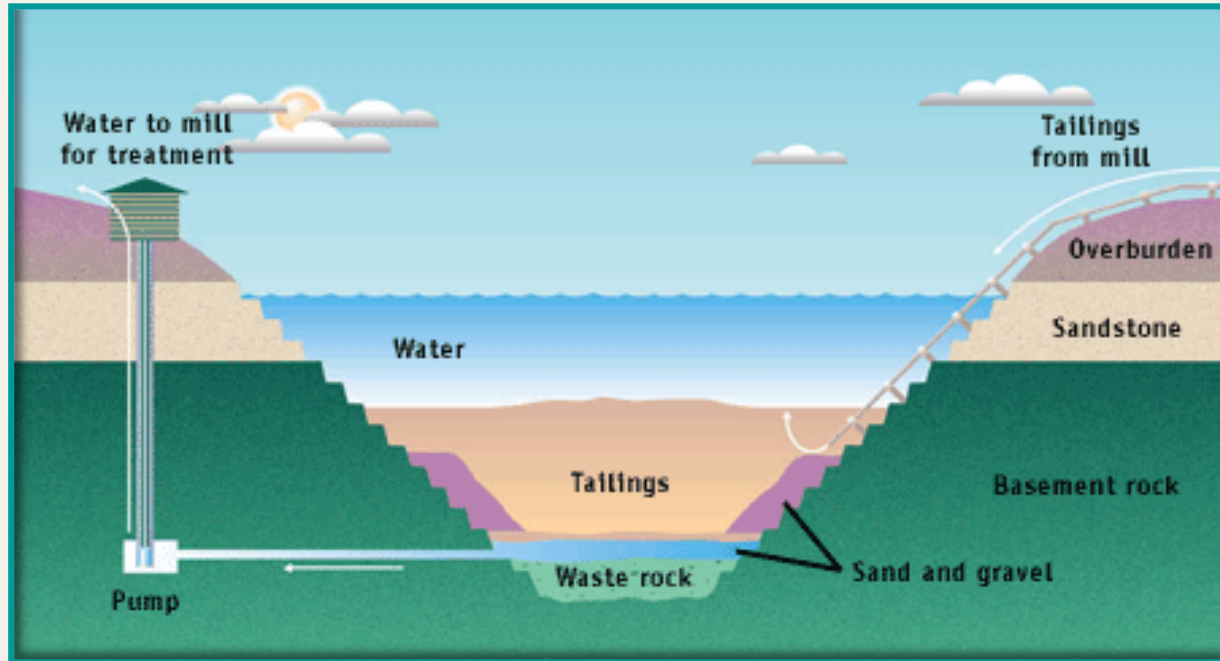
What Waste Do Uranium Mines and Mills Produce?

Remember: high volume, low activity

- **Clean waste rock and waste rock:** Mining produces both clean waste rock and waste rock that must be removed to retrieve the uranium ore. Clean waste rock is not harmful to the environment and is placed in surface rock piles for future use. Waste rock is usually found close to the ore body and contains low concentrations of radionuclides or heavy metals (mineralized waste). These must be managed during operations and properly disposed of so that contaminants are not released to the environment.
- **Tailings:** Milling uranium ore produces tailings. Tailings are what is left over once the uranium has been removed from the ground rock – they resemble fine sand. They contain long-lived radionuclides (such as thorium-230 and radium-226) produced from the decay of uranium, as well as trace metals like arsenic and nickel. They also contain chemical residues from the milling process.



Mine Waste Management





Waste Management for Mines/Mills

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

- Sets general safety requirements (article 11)
- Article 3(2) notes the Convention does not apply to “naturally occurring radioactive material ... that does not originate from the nuclear fuel cycle unless ... declared as radioactive waste ... by the Contracting Party.”
- Contracting Parties have agreed to include mine/mill waste information in their National Reports
- Triennial Peer Review Meetings under the Joint Convention





Transportation

Producing vs. using countries + complexity of fuel cycle =
a lot of shipments, different stages

- IAEA regulations
- Packaging requirements
- Security requirements, physical
- Use of reliable carrier
- Secure storage in transit
- Driver communications
- Emergency planning
- Security response
- Shipment notification





Non-Proliferation and Uranium Trade

- Peaceful purposes nuclear trade under safeguards
- Government policies on non-proliferation determine what “obligations” are put on trade (beyond NPT requirements)
- Nuclear cooperation agreements – bilateral treaty for trade in nuclear material, equipment and technology – **obligations:**
 - exports only for peaceful, non-explosive end-uses
 - control over re-transfer of items under NCA
 - control over the reprocessing of any obligated spent nuclear fuel
 - control over the storage/use of any separated plutonium
 - control over high enrichment / its subsequent storage and use
 - bilateral safeguards if IAEA safeguards are unable to be applied
 - assurances of adequate physical protection – *CPPNM*
- Nuclear Suppliers Group Guidelines – INFCIRC/254





Uranium Trade – Fuel Supply

- Fuel supply: mining, conversion, enrichment, fuel fabrication – all are required to guarantee supply of fuel
- NPT article IV:
 - “inalienable right of all the Parties ... to develop research, production and use of nuclear energy for peaceful purposes” and
 - “right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy”
- BUT: the relevant technology, materials and know-how for civilian nuclear energy production are all dual-use
- Proliferation risk – enrichment technologies



Fuel Supply

How to achieve assurance of supply and ensure non-proliferation?

- Ensuring commercial competitiveness and avoiding monopolistic conditions – challenging
- IAEA Low Enriched Uranium (LEU) Fuel Bank – facility was inaugurated in Kazakhstan on 29 Aug 2017

LEU from the bank may be supplied only if a Member State (MS) fulfills the following eligibility criteria:

- MS experiencing supply disruption of LEU to a nuclear power plant, is unable to secure LEU from the commercial market through State-to-State arrangements, or by other such means
- The IAEA has made a conclusion that there has been no diversion of declared nuclear material, and no issues relating to safeguards implementation in the requesting State are under consideration by the IAEA Board of Governors
- MS has brought into force a comprehensive safeguards agreement requiring the application of IAEA safeguards to all its peaceful nuclear activities

LEU from the IAEA LEU bank, as a mechanism of last resort, can be supplied to a MS only upon advance payment, when the Director General concludes that these three criteria are fully met



Indigenous Rights and Uranium Mining

- Indigenous peoples live in many places with valuable uranium ores – Canada's Athabasca Basin, Australia's Northern Territory, many parts of Africa
- Indigenous Peoples live in more than 60 States

UN Declaration on the Rights of Indigenous Peoples:

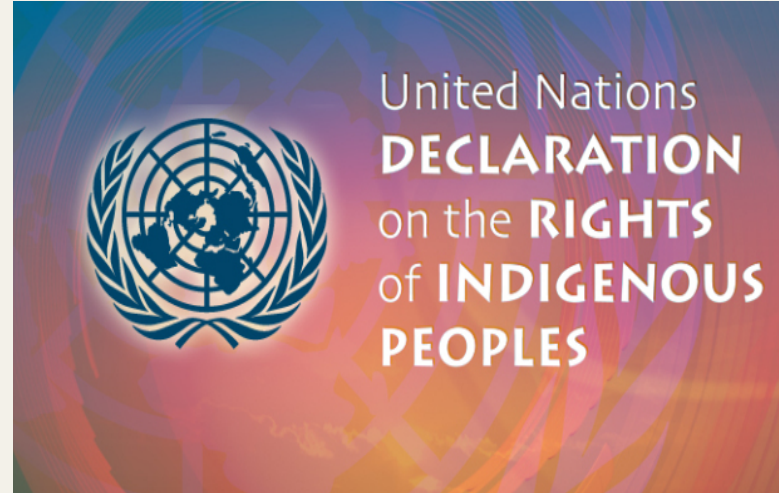
- Adopted in 2007 by the UN General Assembly (143 in favour, 4 against, 11 abstentions)
- Altered the political and legal climate surrounding indigenous *rights* rather than *claims*
- a standard of achievement to be pursued – describes both individual and collective rights of Indigenous peoples around the world, recognizing past injustice and need to respect and protect
- addresses issues such as culture, identity, language, health and education and provides guidance to States, the UN and other international organizations on harmonious, cooperative relationships with Indigenous peoples
- Recognizes land rights, self-determination, autonomy as collective rights of Indigenous groups



Indigenous Rights and Uranium Mining

UN Declaration on the Rights of Indigenous Peoples:

- 29(2): States shall take effective measures to ensure that *no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent.*
- 32(2): States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their *free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.*





Indigenous Rights and Uranium Mining in Canada

- Canada signed onto the UNDRIP in 2010
- Canadian constitutional law imposes on the Crown (government) the duty to consult and potentially accommodate Indigenous groups whose rights (established or asserted) may be affected by a Crown decision, such as a decision to authorize the construction and operation of a uranium mine (licensing/permitting)
- Project proponents are expected to engage with interested Indigenous groups and address all of their concerns
- The CNSC conducts consultation activities and considers potential accommodation as part of its regulatory role in considering a licence application



Fond du Lac Denesuline First Nation et al. v. Canada (Attorney General)

2012 FCA 73

March 2012 Federal Court of Appeal
(see NLB 2012/1, No. 89)



UN Declaration on the Rights of Indigenous Peoples

- “**Soft Law**” instrument – aspirational, a ‘standard of achievement to be pursued in a spirit of partnership and mutual respect’
- Such a non-binding instrument has benefits – broad application, enhanced universality (no ratification process), progressive content (strong mandatory language), participation by non-State actors in drafting
- According to UN standards, a **declaration** is a “formal and solemn instrument, suitable for rare occasions when principles of great and lasting importance are being enunciated”

Some Potential Legal Effects/Applications –

- Can inform how we contextualize existing law, especially for links to recognized legal concepts
- May eventually affect development of customary international law – building legal consensus
- Mechanisms for promotion and follow-up – UN Special Rapporteur, country reports
- Principles can impact how courts decide cases – can be relevant to interpreting responsibilities



OECD Guidelines for Multinational Enterprises

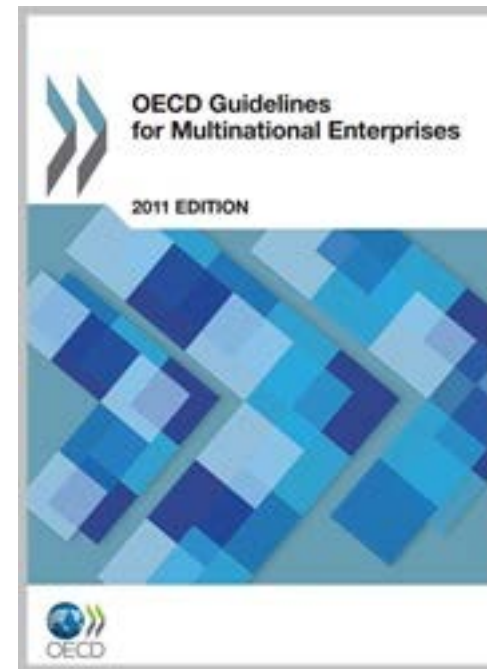
“The OECD Guidelines ... are recommendations addressed by governments to multinational enterprises. The Guidelines aim to ensure that the operations of these enterprises are in harmony with government policies, to strengthen the basis of mutual confidence between enterprises and the societies in which they operate, to help improve the foreign investment climate and to enhance the contribution to sustainable development made by multinational enterprises... The **Guidelines provide voluntary principles and standards for responsible business conduct consistent with applicable laws and internationally recognised standards. However, the countries adhering to the Guidelines make a binding commitment to implement them in accordance with the Decision of the OECD Council on the OECD Guidelines for Multinational Enterprises. Furthermore, matters covered by the Guidelines may also be the subject of national law and international commitments.**” (para 1 of Preface to Guidelines)

- Part of ***DECLARATION ON INTERNATIONAL INVESTMENT AND MULTINATIONAL ENTERPRISES***
- Declaration was first adopted in 1976 – a policy commitment by governments to open, transparent environment for international investment, and to encourage positive contribution multilateral enterprises can make to economic and social progress
- Latest periodic review of Declaration was May 2011, which included the updated Guidelines
- Adhering Governments: 35 OECD countries, plus 13 non-OECD countries



OECD Guidelines for Multinational Enterprises

“The common aim of the governments adhering to the Guidelines is to encourage the positive contributions that multinational enterprises can make to **economic, environmental and social progress** and to minimise the difficulties to which their various operations may give rise. In working towards this goal, governments find themselves in partnership with the many businesses, trade unions and other non-governmental organisations that are working in their own ways toward the same end. Governments can help by providing **effective domestic policy frameworks** that include stable macroeconomic policy, non-discriminatory treatment of enterprises, appropriate regulation and prudential supervision, an impartial system of courts and law enforcement and efficient and honest public administration. Governments can also help by **maintaining and promoting appropriate standards and policies in support of sustainable development** and by engaging in ongoing reforms to ensure that public sector activity is efficient and effective. Governments adhering to the Guidelines are committed to continuous improvement of both domestic and international policies with a view **to improving the welfare and living standards of all people.**” (para 9 of Preface to Guidelines)





Responsible Business Conduct: the Extractive Sector

OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector

“An OECD Recommendation on the Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector was adopted by Council on 13 July 2016. **While not legally binding, the Recommendation reflects the common position and political commitment of OECD members and non-member adherents.**”

Recommendations for management on:

- Developing clear policy framework on engagement, integrating it into management system
- Considering stakeholder engagement issues when making investments/forming business relationships, integrating stakeholder views into project decision-making

Recommendations for on-the-ground personnel on:

- identifying stakeholders, designing appropriate processes for engagement, ensuring follow-through – particular attention to Indigenous, women, workers/trade unions etc.



Business and International Human Rights

Implementing the **UN “Protect, Respect and Remedy” Framework** – the “Ruggie Framework”:

- State duty to protect and respect human rights;
- Corporate responsibility to comply with all applicable laws and respect human rights;
- The need for appropriate, effective remedies when human rights are breached

UN Guiding Principles on Business and Human Rights, 2011: to operationalize the Framework

- Authoritative global standard on risks of adverse human rights impacts linked to business activity
- Encourage States to have coherent laws, policies that are clear for businesses respecting “home” State requirements in terms of respect for human rights
- Operational Principles for businesses – policy commitment, human rights due diligence, legitimate and contextual remediation



Business and International Human Rights

State Duty

- clear law shapes business behaviour: reporting requirements; human rights due diligence as prerequisite for State support; fostering cooperation between government agencies and 'host' governments to inform, address issues; ensuring policy coherence

Corporate Responsibility

- policy commitment: from top to bottom, available to all, embedded into entire enterprise
- human rights due diligence: assess actual and potential human rights impacts, track, respond
- legitimate and contextual remediation: directly, or cooperate with authorities – legal compliance

Access to Remedy

- State-based judicial and non-judicial mechanisms; collaborative initiatives by industry



Implementation of Guidelines, Goals & Principles

Financing:

example, **Equator Principles**

- risk management framework for financing – 94 financial institutions in 37 countries
- “Environmental and social risk management for project finance”
- 10 principles, like: human rights due diligence, climate tracking, stakeholder engagement, transparency and reporting

Trade Agreements:

example, **Comprehensive Economic and Trade Agreement Between Canada and the EU (CETA):**

- reaffirms commitment to promote sustainable development in its economic, social and environmental dimensions
- encourages businesses to respect CSR guidelines, including *OECD Guidelines for Multinational Enterprises*, and to “pursue best practices of responsible business conduct”
- urges consistency with labour and environmental laws

Transparency rules:

example, **Canada’s Extractive Sector Transparency Measures Act**

- Reporting of payments made on commercial development of oil, gas and minerals – “publish what you pay”
- To deter corruption by making revenues from natural resources transparent to the public; meant to ensure citizens benefit
- Now law in UK, US, EU and Canada



Corporate Social Responsibility and Accountability

- Canada's ***Corruption of Foreign Public Officials Act***; U.S. ***Alien Tort Claims Act***; ***Foreign Corrupt Practices Act***
 - Global companies need to have robust anti-bribery, anti-corruption policies in place
 - Question of “facilitation payments” to to get/expedite acts “of a routine nature”
 - Need to verify compliance tools, that employees disclose complete, accurate information
- **OECD National Contact Points (NCP)** – role comes from the ***Guidelines for Multinational Enterprises***
 - dialogue facilitation, mediation
- **Canadian Ombudsperson for Responsible Enterprise (CORE)** (coming soon to Canada)
 - Will have mandate to investigate alleged human rights abuses by Canadian companies abroad
 - Investigative powers and reports are meant to be transparent and publicly available
 - CORE will be “guided by” UN Guiding Principles and OECD Guidelines for Multinational Enterprises
 - Initial focus on extractive and garment sectors, will expand to others
 - Advisory Body on Responsible Business Conduct will be created at the same time



Corporate Social Responsibility – Transnational Torts?

- *Choc v. Hudbay Minerals*, 2013 ONSC 1414 (22 July 2013 – ongoing):
Does a Canadian (nickel) mining company owe a duty of care to protect Guatemalan Mayan Q’eqchi from human rights abuses by the company’s subsidiaries in Guatemala?
- June 2015 motion decision ordering production of documents – on security at other mine projects; community relations activities; corporate control documents:
“... the documents relating to the defendants’ community relations with the Q’eqchi’ populations will help to provide the context for the defendants’ conduct in relation to their security forces. The court’s ultimate finding as to what, anything, the defendants should or should not have done relation to their security personnel could very well turn on the state of their relations with the populations affected.”
- *Yaiguaje v. Chevron*, 2018 ONCA 472
multi-billion dollar oil pollution judgment rendered in Ecuador against American company, which had no assets there; plaintiffs sought enforcement against Canadian indirectly-held subsidiary of Chevron Corp.
 - Perceptions of corporate law in opposition to Indigenous / human rights protections?
 - An ‘equitable ability to pierce the corporate veil whenever it would be just’? **No.**
 - One judge of the three-judge panel said there may be situations where equity would demand departure from the corporate separateness principle, in the context of the enforceability of a valid judgment



Operationalizing the Global Principles

- Domestic Laws – States regulate conduct; impose legal obligation to respect human rights, avoid corruption; include corporate laws with reporting obligations
 - Question of extraterritoriality – effect, investigation, reporting, follow-up
- Mandatory vs. voluntary corporate responsibilities – legal obligation or corporate commitment?
 - Potential litigation risks – conducting business in accordance with corporate policy?
 - Potential costs of failing to address ‘social licensing’ notion
- Transparency can be a key factor affecting how business enterprises view principles
- Governance expectation for systematic approach on human rights (as with anti-corruption and other considerations) – (i) context-specific policies; (ii) due diligence processes that include stakeholder engagement and issues tracking; and (iii) grievance/remediation initiatives



Some General Takeaways

- As a strategic resource that is important for energy security, uranium is of both national and global importance.
- For health and safety, radiation protection, environmental stewardship and non-proliferation, control of uranium production and trade is an important part of both national and international nuclear law.
- Evolution of environmental standards distinguishes current mining from legacy practices, but the perception of environmental damage and unsafe practices must still be addressed. Lifecycle management is key to current regulatory schemes.
- The internationalization of the fuel cycle has potential for non-proliferation gains and security of supply, but must also ensure competition and show respect for the NPT bargain.
- Industry needs to be aware of evolution in CSR imperatives and social acceptability issues for projects – for the extractive sector, stakeholder engagement, sustainability and human rights protections are key.
- Global initiatives on human rights, governance, anti-corruption may not themselves create hard law, but they may generate hard law requirements at State level and change litigation risks.



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

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We will never compromise safety.

nuclearsafety.gc.ca