

The background of the entire slide is a dense field of glowing blue jellyfish, likely a species of moon jelly, with their translucent bodies and intricate internal structures visible against a dark background.

# Best Practices for Deep Seabed Mining

*Lessons from the U.S. Surface Mining Control and Reclamation Act  
Marine Policy, Volume 125, p. 104327 (March 2021)*

*Mark Squillace, Raphael J. Moses Professor of Law  
University of Colorado Law School*

# What can we learn from terrestrial mining?

- Fundamentally different from deep seabed mining
  - In terms of its environmental impact
  - Because conventional reclamation is not possible
- But *we can learn much about good process* in managing mining from the U.S. Surface Mining Control and Reclamation Act
  - It offers many *innovative and exemplary processes* that can be adapted to regulating deep seabed mining

# Elements of a Good Regulatory Program

1. An *agency with comprehensive regulatory authority* over mining;
2. A *robust and public-facing planning and permitting process*;
3. *Comprehensive performance standards* for exploration and mining activities developed with input from relevant stakeholders; and
4. *Inspection and enforcement protocols and strategies* to ensure compliance with permit conditions and all regulatory standards.

# The Organizational Structure of the ISA

- The key elements of the ISA includes—
    - The **Assembly** (all UNLCOS member states – equal voting rights)
    - The **Council** (36 members elected by and from the Assembly)
    - The **Legal and Technical Commission (LTC)** (Elected by the Council)
- The LTC is the key because *once it finds that the conditions for approval are met it must recommend approval*. Moreover, its recommendations on substantive decisions – contract approvals and enforcement actions – *can only be overturned by a 2/3 supermajority of the Council*



# Making the ISA Work

- The LTC is designed as a professional, expert body that makes recommendations on the merits. The **Council must vigilantly oversee the LTC** to keep politics out of their recommendations
  - **Impartial technical staff** to assist the LTC will be critical
  - And the ISA must adopt strict standards that promote transparency and ensure that a recommendation of approval reflects all elements of a good

# Planning and Contracting

- **After a comprehensive *ESIA* process, contracts or permits must reflect that process and include clear standards describing how exploration and mining activities will be conducted and how problems encountered will be addressed. Contracts must include:**
  - 1. *Small scale testing requirements***
  - 2. *Comprehensive reporting requirements***
  - 3. *Adaptive management protocols***
  - 4. *A commitment to the precautionary principle***
  - 5. *Opportunities for public oversight and engagement***

# Informal and Formal Contract Review

- Before the LTC makes a recommendation on a contract, the public should be given to review the proposed contract and LTC recommendations
  - As with SMCRA, the ISA should allow interested stakeholders to request an *informal conference with the LTC before any final recommendations are made*
  - *Formal review of final decisions by the Seabed Disputes Chamber should also be afforded to all interested stakeholders after approval of a contract*

# Designing Performance Standards

- Assessing how different mining techniques and methods will impact marine resources is extremely difficult, especially at the outset of a new mining program
  - ***The small-scale testing*** requirement (hopefully carried out by the Enterprise) before full-scale mining proceeds could yield valuable information for designing good standards
  - ***Using SMART (specific, measurable, achievable, realistic, and time-bound) metrics*** to assess whether standards are being met
  - Critical to engage relevant stakeholders in setting metrics



# Inspection & Enforcement Program

- Only with ***regular inspections*** will we know if a contractor is violating the terms of the contract/performance standards?
  - ***Rotating inspectors*** assigned to live on-board vessels
  - ***Live, continuous, on-board cameras*** showing mining activities
  - Detailed ***regular (at least monthly) monitoring reports*** assessing compliance with SMART metrics/describing enforcement action
  - ***Opportunities for stakeholders to file complaints*** and have them promptly and fairly addressed
  - ***Whistleblower protections*** for employees