Offshore Petroleum Safety and Environmental Management Administration

AMPLA State Conference

18 May 2012
Simon Schubach, General Manager Regulatory
Immediate Cause:
Primary cementing integrity failure

Root Cause:
Systemic failure of management systems, non-compliance with operating procedures
Recent amendments to the OPGGSA and the legislative framework

Regulating safety

Regulating well integrity

Regulating environmental management
On 1 January 2012 the *Offshore Petroleum and Greenhouse Gas Storage Amendment (National Regulator) Act 2011* commenced:

- Two new regulatory bodies replaced the Designated Authorities:
  - NOPSEMA: an expanded version of NOPSA with functions including regulation of environmental management
  - NOPTA: titles administration by an officer within RET
- There was no change to the Joint Authority arrangement with respect to petroleum titles
Extension of functions

• NOPSEMA functions include monitoring and enforcement to ensure compliance with obligations under the OPGGSA

• Capacity to enter into contracts for regulatory services to other jurisdictions (States or NT for offshore and onshore and foreign countries)

• Provides for States & Territories to confer OHS, structural integrity and environmental functions and powers in designated coastal waters. If any function is conferred, OHS and structural integrity must be conferred together

• Resource Management Regulations added to the listed OHS laws to the extent they relate to OHS matters
NOPTA – NOPSEMA interface

• NOPSEMA must co-operate with NOPTA regarding administration and enforcement
• NOPSEMA appoints and deploys petroleum project inspectors (PPIs)
• NOPTA may give directions to a PPI regarding information gathering
• Where a PPI undertakes activities related to a NOPTA function, NOPSEMA costs can be recovered
Petroleum Safety Zones

- **Objective**: Protect wells, structures & equipment from vessels and ensure the safety of navigation (s616)
- **Mechanism**: Petroleum safety zones published in the Gazette by NOPSEMA
- **Criteria**: A petroleum safety zone may extend to 500m around the well, structure or equipment
- **Process**:
  - Established via application by Operator or by NOPSEMA directly
  - NOPSEMA also assesses applications for entry
• NOPSEMA has general (s574) and remedial (s586) direction-giving powers
• Ministerial directions (resource management, resource security) prevail over NOPSEMA directions to the extent of any inconsistency
• On 7 March 2012 the *Offshore Petroleum and Greenhouse Gas Storage Amendment (Significant Incident Directions) Act 2012* commenced:
  – If there is a significant offshore petroleum incident in a petroleum title area, NOPSEMA may give a specific direction to the titleholder to deal with the escape of petroleum resulting from the incident, whether within or outside the title area.
2005

**NOPSA established** for regulation of safety *(1 January 2005)*


2009

**Productivity Commission**
Review of the regulatory burden on the offshore petroleum industry


2011

**Montara Commission of Enquiry**
Australian Government response to establish single national regulator

**NOPSA regulation of well integrity** *(April 2011)*


2012

**NOPSEMA established** including addition of environmental management regulation *(1 January 2012)*
Independent statutory authority

Minister for Resources, Energy and Tourism

Standing Committee on Energy and Resources Consultation on policy/direction

Responsible State & NT Ministers

Reporting, Policy/Direction

 NOPSEMA CEO

Advice & recommendations Inform, request advice

 NOPSEMA Advisory Board

Advice on OHS & NOPSEMA

Reporting & Information

 NOPSEMA CEO

 NOPSEMA

 NOPSEMA

 NOPSEMA
Commonwealth *Offshore Petroleum and Greenhouse Gas Storage Act 2006*

Schedule 3 – OHS law

- Safety regulations
- Wells via resource mgmt regulations
- Environment regulations
NOPSEMA’s coverage

• **Operations**
  – Offshore petroleum operations
  – Offshore greenhouse gas storage operations

• **Scope**
  – Occupational health and safety at facilities
  – Structural integrity of facilities and wells
  – Environmental management of petroleum activities
### 1. OPGGSA

**Petroleum Acts**

2. Petroleum Submerged Lands Act 1982
3. Petroleum & Geothermal Energy Resources Act 1967
4. Petroleum Act 1936

**Legend**

- **Commonwealth Offshore Area**
- **Coastal Waters**
- **Internal Waters**

**Note:** State Waters = Internal Waters + Coastal Waters

- **3 Nm Limit of State Coastal Waters**
- **Baseline**

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**Map:**

- **1.** Commonwealth Offshore Area
- **2.** Coastal Waters
- **3.** Internal Waters
- **4.** A valuable location for potential petroleum activities.
NOPSEMA operates under legislated functions

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- Compliance
- Improvement
- Governance
Legal framework

- A ‘General Duties’ regime for offshore petroleum & greenhouse gas storage operations
- Performance-based, but with some prescriptive elements
- An **independent** Safety and Environmental Management Authority, funded by levies on industry
- A duty holder’s management plan, accepted by NOPSEMA is used as a permissioning document:
  - Safety case
  - Well operations management plan
  - Environment plan


**Assessment**
- Independent, sampled evaluation of an operator’s submission against the regulations
- Challenge operators: “Are your plans appropriate?”

**Inspection**
- Independent, sampled inspection of the petroleum activity against the accepted SC, WOMP, EP and regulations
- Challenge operators: “Are you doing what you said you would do?”

**Investigation**
- Independent inspection to determine what went wrong and determine whether enforcement/prosecution is required
- Challenge operators: “What wasn’t done? What can we learn?”

**Enforcement**
- Take action within powers under the Act and regulations to secure compliance
• **Independent and professional**
  - *Transparent, coherent policies and processes, shared with industry and consistent with the requirements of the regulations, administered by a critical mass of skilled professionals that focus on ensuring duty holders, and the regulator, comply with their obligations specified in law*

• **Respect for “due process”**
  - *Timely and competent decisions based on criteria set out in the regulations*
  - *Processes outside the regulatory requirements are not created*
  - *Requirements and interventions by the regulator are not arbitrary*

• **Certainty for industry and a reduction in regulatory burden**
• **Offshore Petroleum and Greenhouse Gas Storage (Regulatory Levies) Act 2003:**
  - Safety case levy: annual levy payable by operator of facility with safety case in force
  - Annual well levy: payable by titleholder for eligible wells (non-abandoned) plus well activity levy: submission of WOMP
  - Environment plan levy: on submission of EP and payable by titleholder
  - Values worked out in accordance with the Regulations
## NOPSEMA regulatory scope

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Scope of regulation - petroleum resource development life cycle

Seismic / other surveys:
Environment Plan (EP)

Drilling:
SC, EP, WOMP, AAUWA

Construction, Production:
SC, EP, PSZ

Decommissioning:
SC, EP, AAUWA

life cycle

Exploration

Construction

Development

Operations

Decommissioning

Seismic / other surveys:
Environment Plan (EP)

EPBC Act referral(s) (and EIA)

EPBC Act decision

EPBC Act conditions of approval/compliance

acreage release & bid

award title

field development plan

title surrender

Construction Operations

Decommissioning Development Exploration

NOPSEMA

NOPTA/AJA

SEWPac

A222580

[OPGGS Act]

[OPGGS Act]

[EPBC Act]
Regulating safety
Objectives of the Health & Safety Schedule

- To secure the health, safety and welfare of persons at or near facilities
- To protect people at or near facilities from risks arising out of activities being conducted at facilities
- Schedule 3 contents:
  1. Facility definition
  2. General duties
  3. Workplace arrangements
  4. OHS inspections
  5. Accident and Dangerous Occurrence reporting
• Vessels/structures being used/prepared for use
• Categories of activities:
  • recovery, processing, storage and offloading of petroleum
    — Includes any wells, associated plant, equipment used, and any pipes, or secondary lines connected to the facility
  • accommodation, drilling or servicing a well, laying pipes, erection/dismantling of a facility
  • licensed pipelines
• Ceases when returned to a navigable form or can be towed
Duties of the Operator

• **General:** the operator of a facility must take all reasonably practicable steps to ensure that:
  — the facility is safe and without risk to the health of any person at or near the facility
  — all work and other activities are carried out in a safe manner and without risk to the health of any person at or near the facility

• **Specific duties include** implementation and maintenance of safe system of work and procedures and equipment for control of emergencies
• Facility (including licensed pipelines) must have a registered operator
• A safety case must be in force (accepted by NOPSEMA) to conduct activities
• Work at a facility must not be contrary to the safety case in force for the facility
Standards in the regime

• Standards applied must be listed in the safety case and the operator must comply with these standards
• Validation:
  – independent confirmation that appropriate standards have been selected and applied for the design, construction and installation
  – part of safety case assessment
• Performance standards must be specified (e.g. for emergency preparedness)
• Standards can take the form of prescriptive requirements e.g. development of an OHS policy
• Standards can be called up directly by the regulations
Regulating well integrity
• NOPSEMA replaced the State Regulator as the regulator for wells in Commonwealth waters

• NOPSEMA decides:
  – WOMP acceptance/rejection
  – individual well activities approval / rejection

• Integrity definition includes that the well is subject only to risks have been reduced to a level that is as low as reasonably practicable

• Part 5 of the Resource Management and Administration Regulation (RMAR) is a listed OHS law => NOPSEMA powers apply
• Performance-based regime that requires the titleholder to control well integrity hazards or risks where integrity means:
  – under control in accordance with an accepted WOMP
  – able to contain reservoir fluids
  – subject only to risks that have been reduced to a level that is as low as reasonably practicable

• Risks managed in accordance with sound engineering principles, standards, specifications and good oil field practice
WOMP Regulations – Safety Case for Wells

- Be appropriate
- Explain philosophy and criteria; company policies and processes that are the basis of the design, construction, operation, and management of the wells
- Identify risks & controls - demonstrate well integrity risks are reduced to ALARP
- Include performance standards, objectives & associated measurement criteria
- Explain how a well integrity hazard or increase in risk will be managed => contingency planning.
Regulating environmental management
Environment plan regulatory requirements

• Required before activity commencement
• Must contain an oil spill contingency plan
• Specific objectives-based acceptability criteria must be met, including:
  – Appropriate for nature and scale
  – Risks as low as reasonably practicable (ALARP)
  – Risks must be acceptable
  – Appropriate performance objectives and standards
  – Appropriate consultation
Consultation process in the offshore petroleum EP regime

Operators

| PLANNING STEPS                  | REVIEW THE LEGISLATIVE REQUIREMENTS & GUIDANCE | IDENTIFY THE RISKS, STAKEHOLDERS & STAKEHOLDER ISSUES | EVALUATE THE RISKS AND IDENTIFY POTENTIAL CONTROLS | CONSIDER FEEDBACK, RESPONSE & ACTIONS IN ABSENCE OF FEEDBACK | SUBMIT EP (&OSCP) TO NOPSEMA FOR ASSESSMENT | COMMENCE ACTIVITY AND REVISE |

Stakeholders

Planning: communication with ‘relevant persons’ on impacts relating to functions, activities or interests

Implementation: ongoing consultation

NOPSEMA

Assessment of submission

monitor & enforce
Oil Spill Preparedness & Response Framework

Oil Pollution Preparedness, Response and Cooperation, 1990 (OPRC90)

- Offshore Petroleum and Greenhouse Gas Storage Act
- Environment Regulations
- ‘Protection of the Sea Acts’
- National Plan
- Operator’s EP (with OSCP)

International
Australia
Organisational arrangements & NOPSEMA role (simplified)

**Planning/Preparedness**
- **Operator/Titleholder**
- **NOPSEMA**
- **National Plan Administrator**
  - AMSA
- **Major Hazard Agencies**
  - State/NT

**Response**
- **Commonwealth Agencies led by**
  - RET (OPIRRC)
- **Monitor and enforce compliance**
  - **Regulator and Statutory Agency**
  - NOPSEMA
  - **Operator/Titleholder**
  - **“Combat Agency”**
    - Operator or Nominated Combat Agency
  - **Oil Spill Response Organisation(s)**
What’s next

- Wells regulations: risk reduction and source control contingency planning
- Environment regulations: adequacy of coverage and strengthen powers to ensure compliance,
- Enhanced powers for petroleum project inspectors
- Greater transparency: publication of notices
- Design notification scheme within the safety case regime
- Clarification of health and safety regime boundaries
• Final Government Response
  

• Implementation by RET:
  – Good oilfield practice (R68)
  – Civil penalties review (71)
    
  – Polluter pays principle (R95 & 96)
Operational Review

• Second Triennial Review of the Operational Effectiveness of NOPSA Report presented to Minister November 2011


• Report concluded: NOPSA has firmly established itself as a respected and competent safety regulator among stakeholders and peers in both the domestic and international offshore petroleum and gas industry

• The Final Government Response is expected shortly
11 people lost their lives
11 families lost loved ones
Thank you