

Offshore Petroleum Safety and Environmental Management Administration

AMPLA State Conference

18 May 2012

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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

- 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

- 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

- **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.

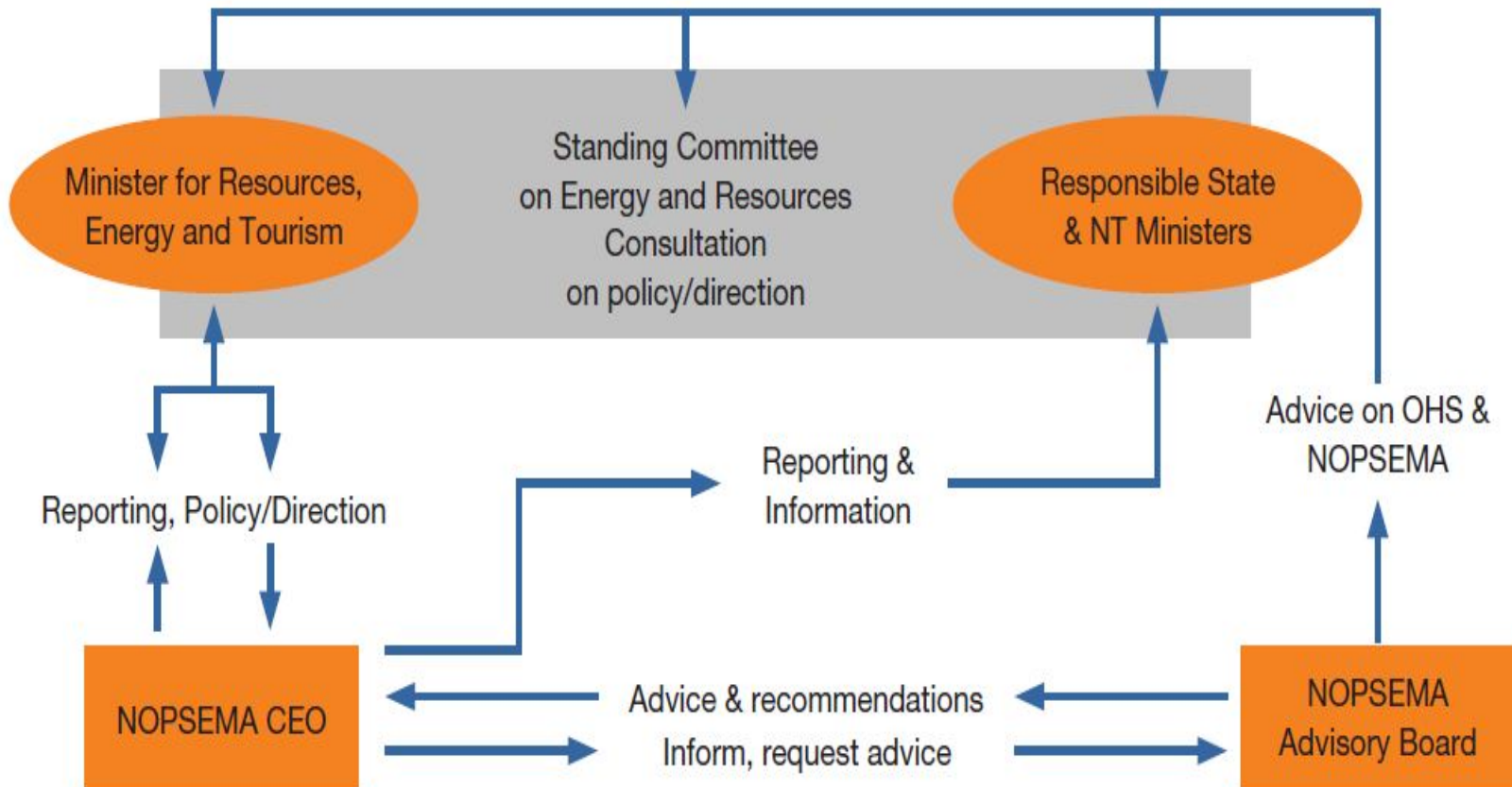
2005 **NOPSA established** for regulation of safety (1 January 2005)

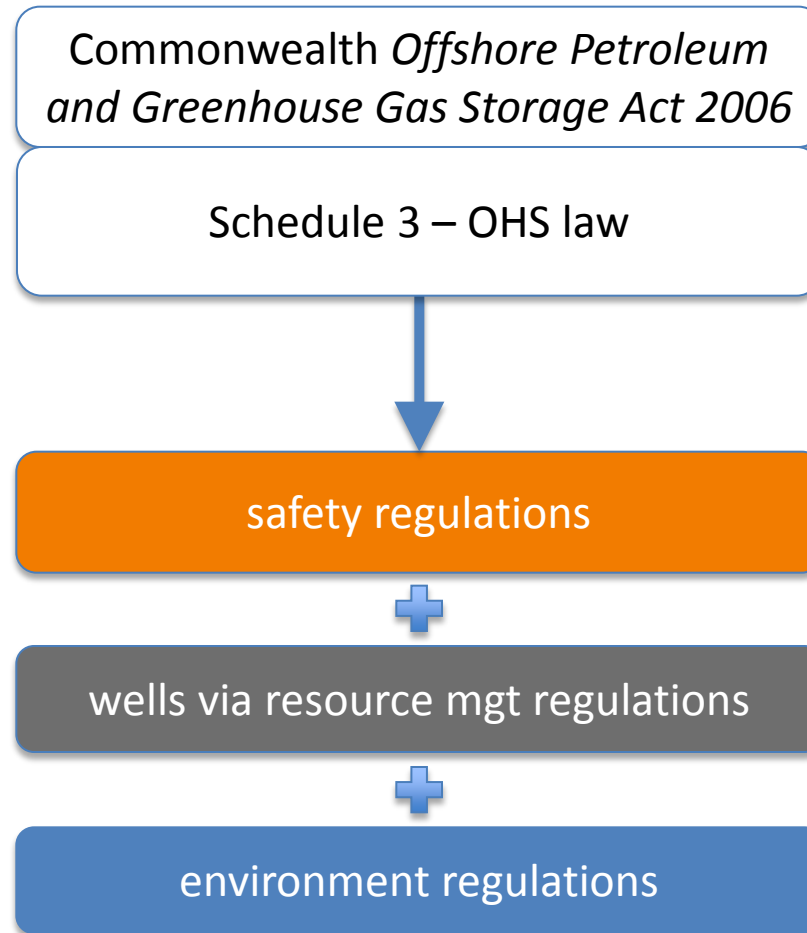
2009 **Productivity Commission**
Review of the regulatory burden on the offshore petroleum industry

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)





- **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

Commonwealth Offshore Area

Coastal Waters

Internal Waters

* Note - State Waters = Internal Waters + Coastal Waters

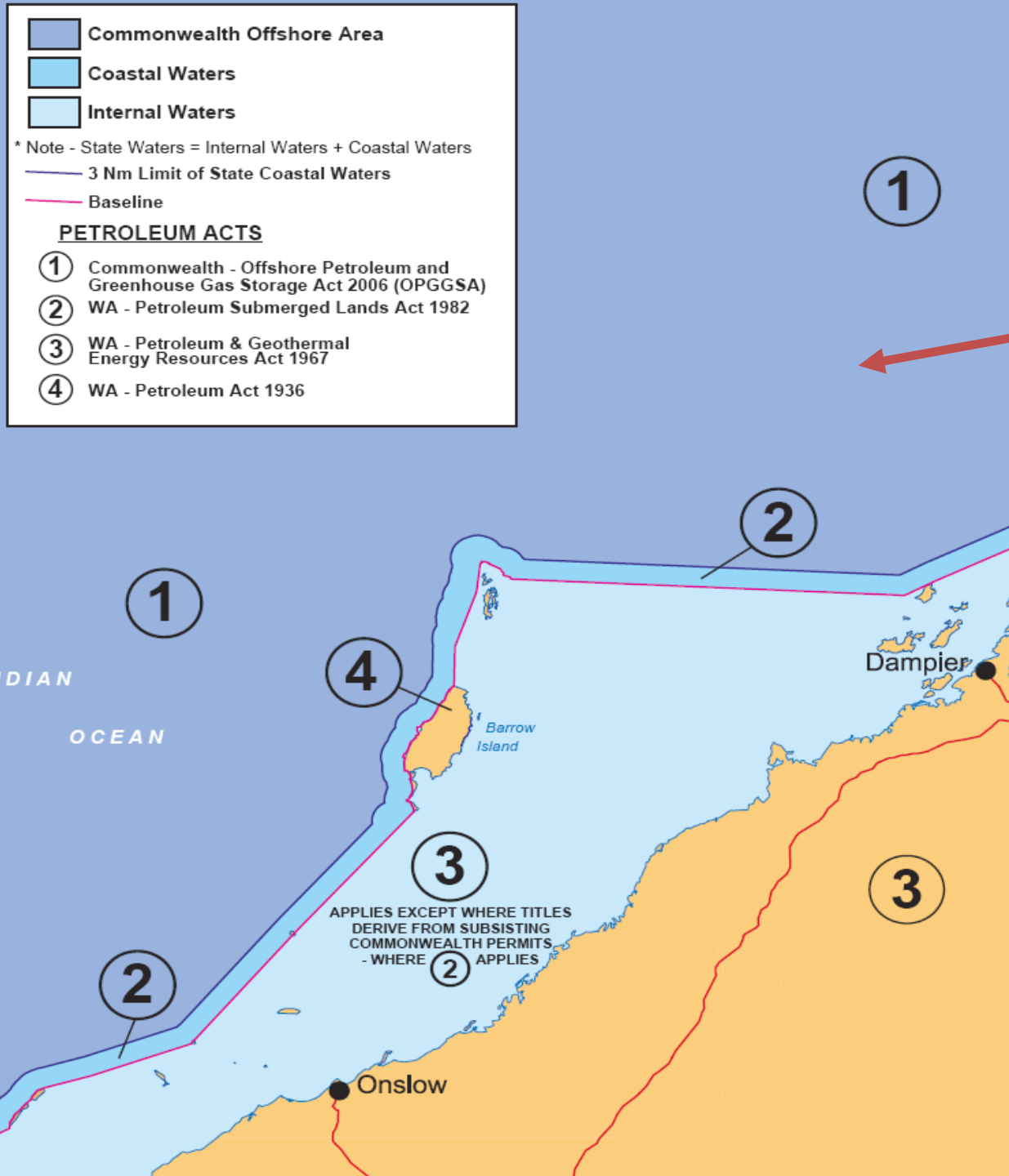
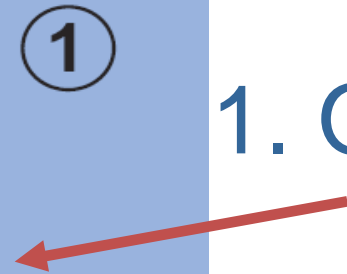
— 3 Nm Limit of State Coastal Waters

— Baseline

PETROLEUM ACTS

- ① Commonwealth - Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGSA)
- ② WA - Petroleum Submerged Lands Act 1982
- ③ WA - Petroleum & Geothermal Energy Resources Act 1967
- ④ WA - Petroleum Act 1936

1. OPGGSA



NOPSEMA operates under legislated functions

Monitor & Enforce	Investigate
Promote	Advise
Co-operate	Report

Compliance

Improvement

Governance

- 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

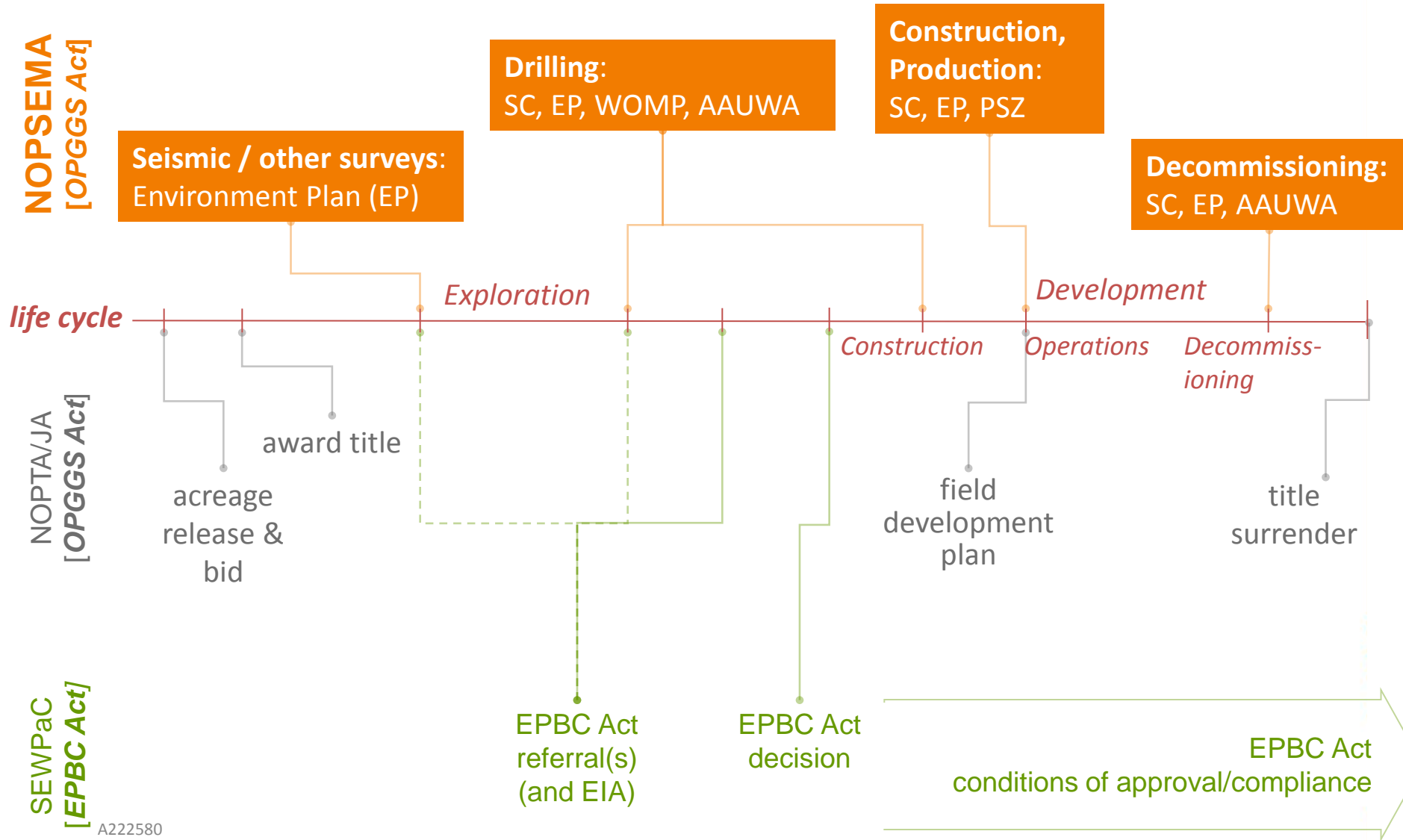
- Take action within powers under the Act and regulations to secure compliance

- **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

Terms & functions	Safety	Well Integrity	Environmental Management	Administration
Dutyholder	Operator	Titleholder	Operator of petroleum activity	Titleholder
Key approvals/submissions	Safety case	Well operations management plan	Environment plan (incl. oil spill contingency plan)	Notifications, safety zones, directions, compliance support to NOPTA
Compliance monitoring	OHS inspectors	OHS inspectors	Petroleum project inspectors	Petroleum project inspectors
Inspector powers	OHS-related entry, seizure and notices	OHS-related entry, seizure and notices	Entry and search	Entry and search
Funding	Safety case levies	Well levies	Environment plan levies	Reimbursement for NOPTA-related matters

Scope of regulation - petroleum resource development life cycle



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

- 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 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

- 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.

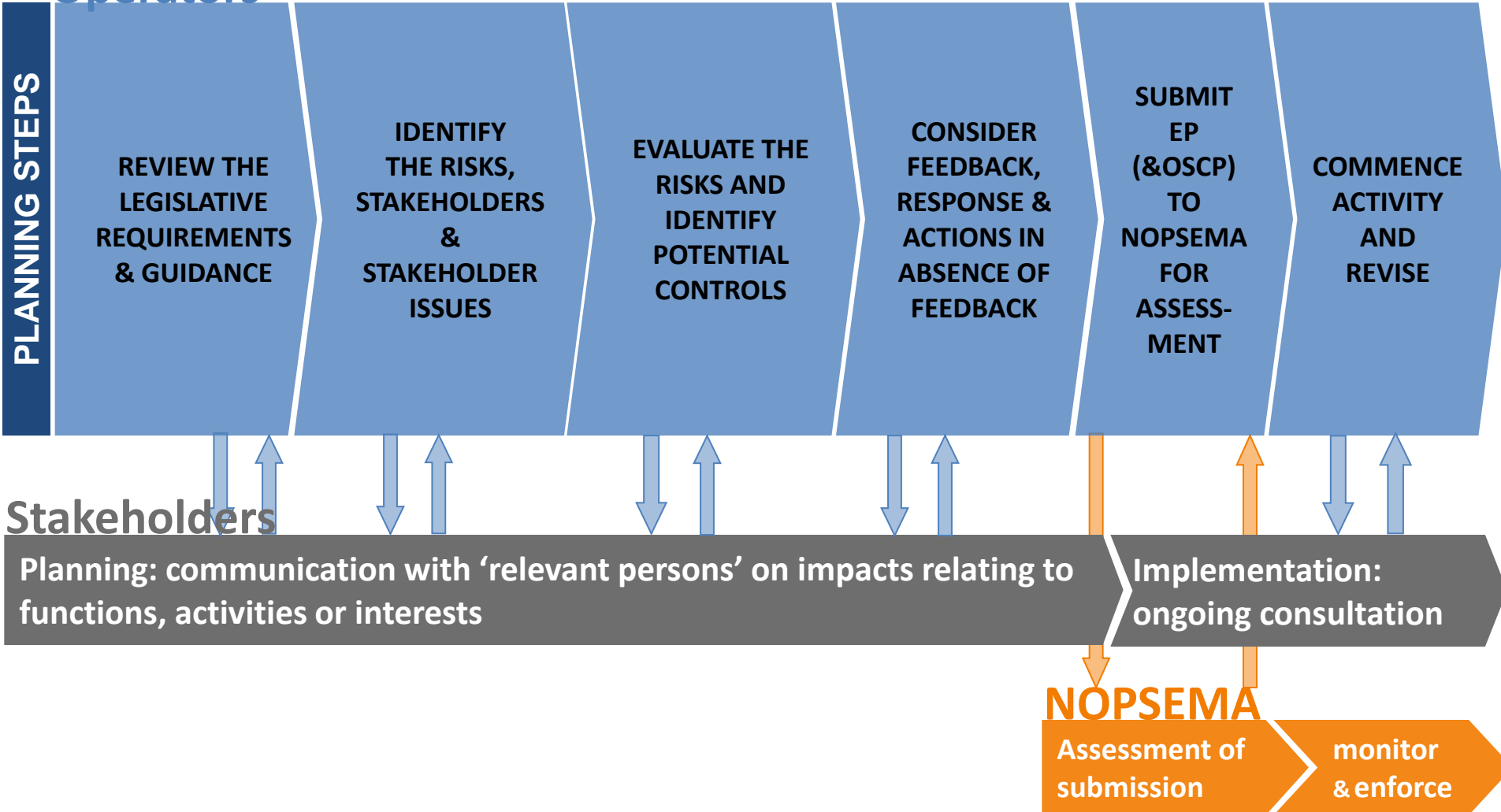
Regulating environmental management

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

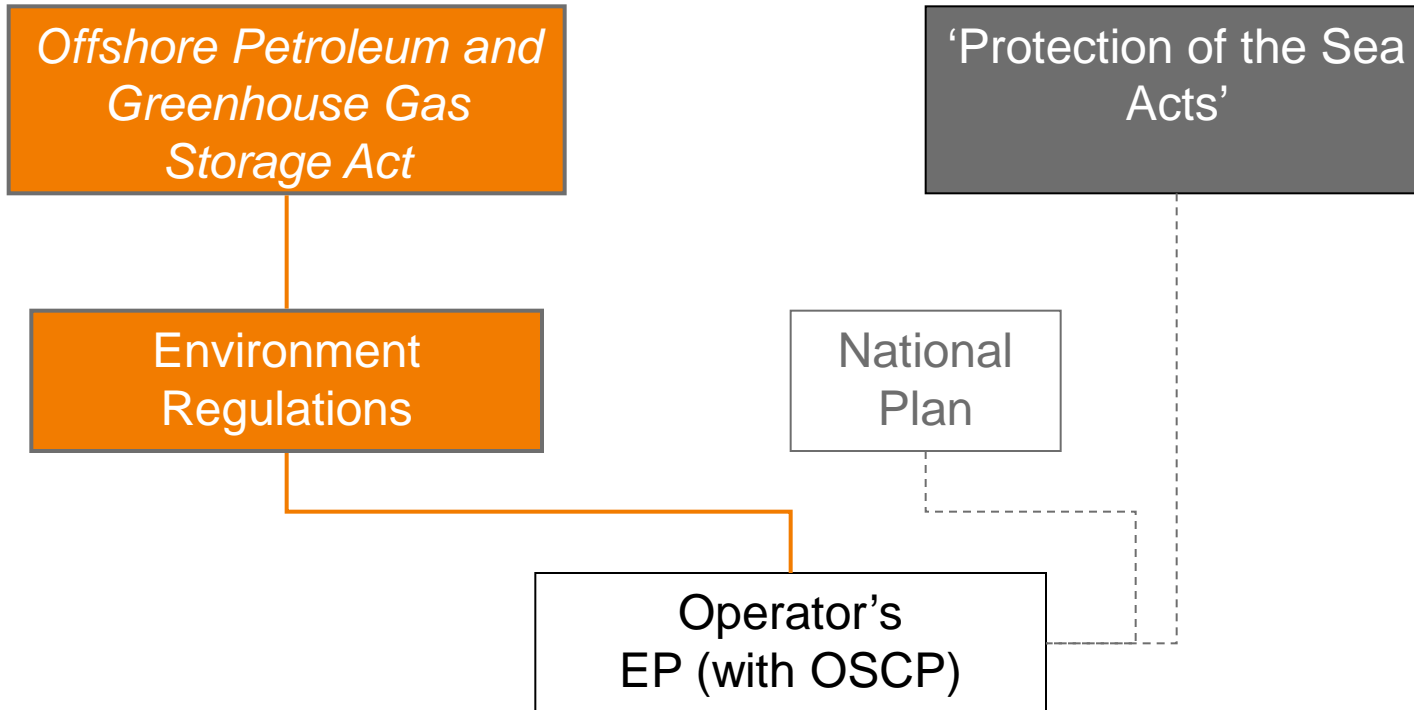
Operators



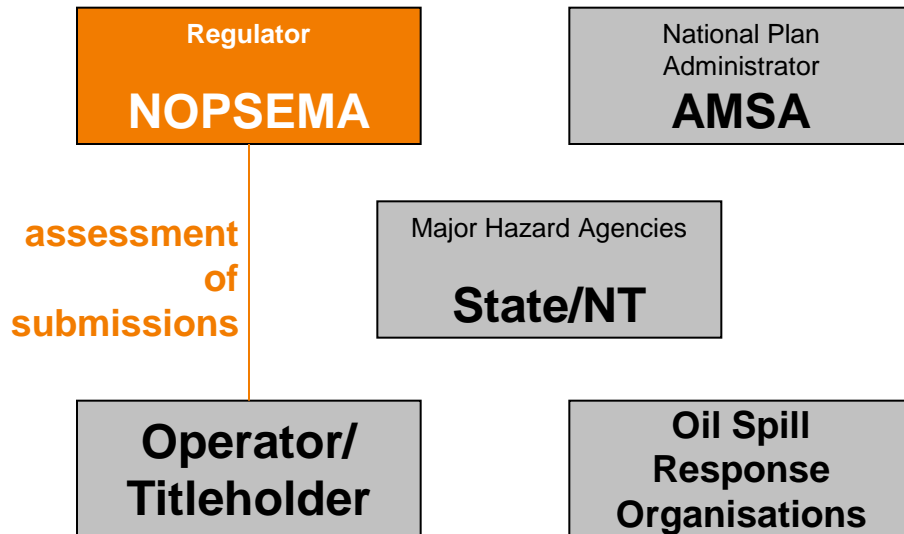
Oil Pollution Preparedness, Response and Cooperation, 1990 (OPRC90)

International

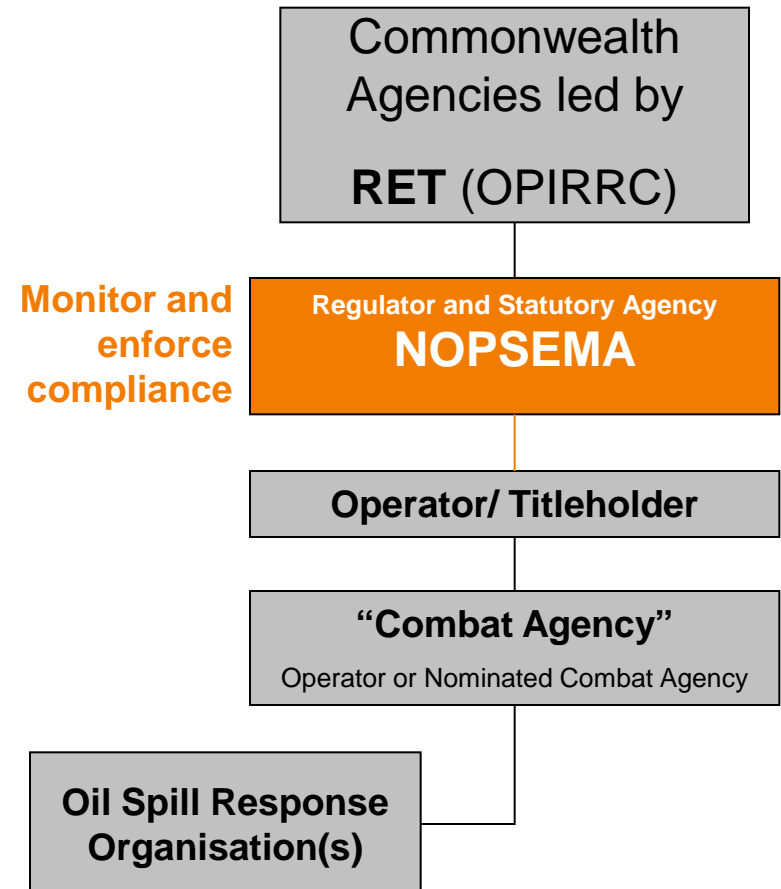
Australia



Planning/Preparedness



Response



- 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

<http://www.ret.gov.au/Department/Documents/MIR/FinalMontaraCommissionInquiryReport.pdf>

- Implementation by RET:

- Good oilfield practice (R68)
- Civil penalties review (71)

<http://www.ret.gov.au/Department/Documents/MIR/Civil-Penalties-Issues-Paper.pdf>

- Polluter pays principle (R95 & 96)

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

<http://www.ret.gov.au/resources/Documents/Offshore%20Petroleum%20Safety/Final%20Report.pdf>

- 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



© US Coastguard

11 people lost their lives
11 families lost loved ones



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Thank you