



# BRAZIL BRIEF:

Practical Considerations for  
Regulatory Compliance in Brazil  
*for Offshore Floating Production Installations*





## OVERVIEW

### PRACTICAL CONSIDERATIONS FOR REGULATORY COMPLIANCE IN BRAZIL

Developing an offshore production installation is a complex task with multiple aspects to consider in order to meet production targets and operational requirements while meeting safety goals. One of the important components is regulatory compliance. While international standards, codes and regulations are widely used as the basis of design, the local regulatory agencies at the country of operation often present additional requirements that must be met by operators.

Floating production installations operating in Brazilian Jurisdictional Waters must comply with a series of requirements that are specific and set

forth by multiple agencies rather than unified in one set of regulations, as illustrated in Figure 1 below. This makes regulatory compliance for Floating Production Storage and Offloading (FPSOs) units and Floating Production Units (FPUs) operating in Brazil a unique challenge. Since regulatory authorities do not delegate verification of compliance to third parties (with a few exceptions), it is the responsibility of production installation owners, operators and providers to obtain the necessary approvals to operate. To help offshore operators in Brazil navigate these regulations, ABS provides detailed guidance for floating production units operating in Brazil.

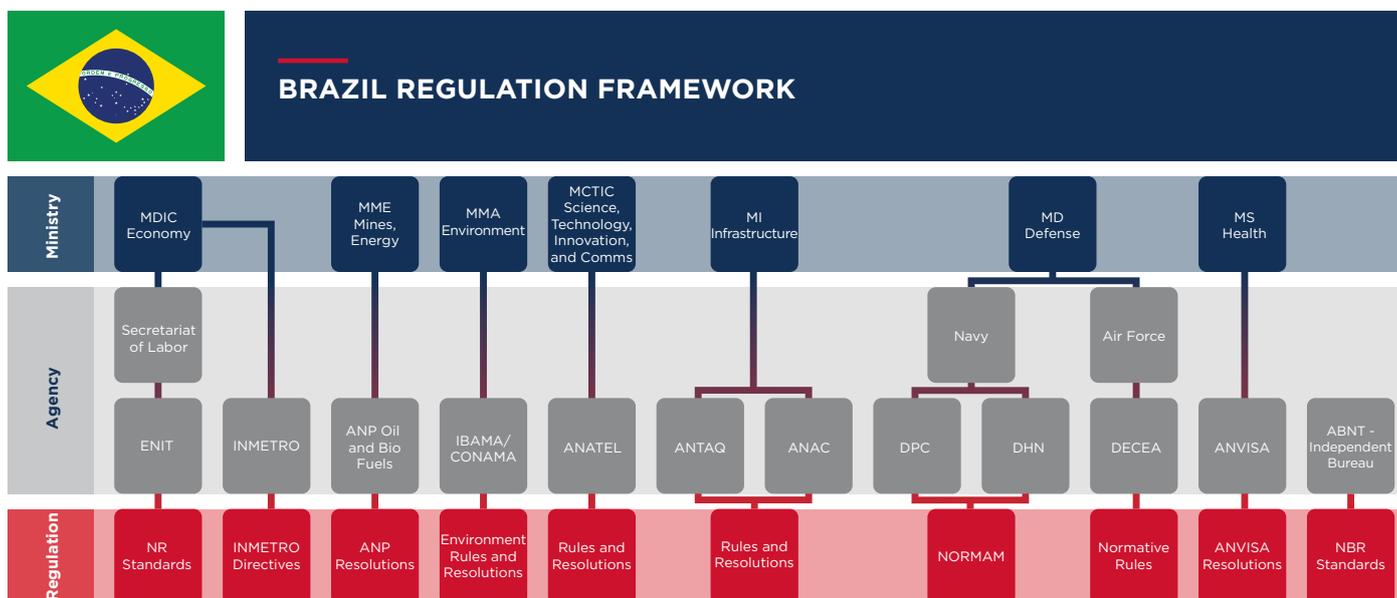


Figure 1: Regulatory Framework for FPSOs and FPUs Operating in Brazil



# ABS BRZ AND BRZ+ NOTATIONS

The ABS BRZ and BRZ+ notations provide shipyards, construction yards, designers, owners and operators with a design and construction-focused approach to help achieve compliance with domestic regulations for FPSOs and FPU's operating in Brazilian Jurisdictional Waters. The guidance includes a comprehensive process that verifies the implementation of physical regulatory requirements covered by each notation.

Applicable to the offshore installation and its station keeping, the requirements are implemented during design, construction, integration, commissioning and installation of the units.



## BRZ NOTATION

The BRZ notation covers basic physical requirements to be implemented in the design and construction stages of the floating facility project.

NR, NORMAM, ABNT, CONAMA



## BRZ+ NOTATION

The BRZ+ notation expands the coverage of requirements and includes a significant larger coverage of regulations from different agencies to better assist clients in the project development phase.

Plus ANVISA, ANP, IBAMA, DECEA





## REGULATORY REQUIREMENTS

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The ABS BRZ and BRZ+ Notations address regulations from the following agencies:

### DPC - BRAZILIAN MARITIME AUTHORITY

The Brazilian Maritime Administration DPC (*Diretoria de Portos e Costas*) is a branch of the Brazilian Navy and is responsible for maritime safety. DPC issues the standards applicable to maritime activity in Brazil Jurisdictional Waters - the NORMAM series of standards (*Normas da Autoridade Marítima*). As an example, the NORMAM 01 contains requirements for ships and platforms, including all types of production units. It describes the international codes and regulations required for these units, including but not limited to MODU Code (Code for the Construction and Equipment of Mobile Offshore Drilling Units), SOLAS (International Convention for the Safety of Life at Sea), MARPOL (International Convention for the Prevention of Pollution from Ships). In addition, these standards refer to requirements issued by other Brazilian entities and Classification Societies rules.

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### ENIT - LABOR INSPECTION

The labor inspection awareness organization ENIT (*Escola Nacional da Inspeção do Trabalho*) is an organization in charge of maintaining and developing awareness of the labor requirements contained in the regulations. These requirements are published in the NR series of standards (*Normas Regulamentadoras*) which focus on safety and quality of life at work. The most relevant NR applicable to offshore production units is the NR-37 Health and Safety in Oil Platforms. Additional important documents are the NR-13, which requires certification of the majority of pressure vessels on board an offshore unit, and the NR-10, with requirements for certification of electrical systems on board.

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### ANP - OIL AND GAS AGENCY

The oil, gas and biofuels regulatory agency ANP (*Agência Nacional do Petróleo, Gás Natural e Biocombustíveis*) implements the national policy for the sector and regulates activities related to exploration, development and production of the country's reserves, as well as refining and distribution of related products. The regulatory activity also includes inspection to confirm compliance with the established regulations.

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As Brazilian regulations do not establish order of precedence, all regulations are equally applicable. Other regulatory agencies with the same level of importance and precedence covered by ABS notations are:

- **ANVISA** - Health Regulatory Agency - *Agência Nacional de Vigilância Sanitária*
- **DECEA** - Air Space Control Department - *Departamento de Controle do Espaço Aéreo*
- **CONAMA** - National Environmental Council - *Conselho Nacional do Meio Ambiente*
- **ABNT** - Brazilian Standards Association - *Associação Brasileira de Normas Técnicas*
- **IBAMA** - National Environmental Institute - *Instituto Brasileiro do Meio Ambiente*



# PRACTICAL APPLICATION GUIDANCE

With the largest fleet of classed floating production installations in Brazil, ABS has the knowledge and experience to support clients in achieving regulatory compliance in Brazil. Upon project commencement with the ABS BRZ notations, clients will receive the *ABS Practical Considerations for Regulatory Compliance in Brazil*, the most comprehensive guidance and with simplified translation of the application of the regulatory requirements included in the BRZ notations, all in the English language.

The document is presented in a format that allows sorting and filtering by area of application, by discipline, by agency or by regulation, for easy reference by designers, shipyards and owners. The following items are provided in the document:

- Discipline
- System
- Regulatory Agency
- Regulatory Document
- Regulation Requirement
- Practical Considerations Guidance

The guidance is presented in a simplified format that facilitates understanding and implementation of the requirement.

Discipline	System	Agency	Regulatory Standard	Subject	Item	Regulatory requirement	Practical Considerations
Electrical	Power distribution system	ENIT	NR 10 - Safety in Electrical Installations and Services	Safety	10.3	10.3.1 It is mandatory that the electrical installation design specify circuit disconnection devices having features to prevent re-energizing, for warning signs with an indication of the operating condition.	Circuit breakers and other disconnecting devices: - be able to be locked disconnected (lockout) - have operational state indication
Electrical	Power distribution system	ENIT	NR 10 - Safety in Electrical Installations and Services	Fire and explosion protection	10.9	10.9.4 Electrical installations in hazardous areas or subject to increased risk of fire or explosion, should be provided with protection devices, such as alarm and automatic sectioning to prevent overvoltage, overcurrent, insulation faults, overheating or other abnormal operating conditions.	Protection devices such as breakers and alarms to be provided for electrical systems in hazardous areas
Equipment	Electrical	ENIT	NR 12 - Machinery and Equipment	Electrical installations and devices	12.3	12.3.3 The control and power circuits of machinery and equipment which are or may be in direct or indirect contact with water or corrosive agents are to be provided with means and devices to assure their shielding, tightness, insulation and grounding in order to prevent accidents.	Electric control and power supply for equipment to be designed with proper water ingress protection rating
Arrangement	Noise	ENIT	NR 17 - Ergonomics	Working conditions	17.5	17.5.2.1 For the activities that have their characteristics defined by the sub-item 17.5.2, but not equivalent or correlated to the ones listed in the NBR 10152, the acceptable noise level regarding to the comfort shall be up to 65 dBA and the noise evaluation curve (NC) not to be higher than 60 dB.	Control stations, labs, offices and design rooms not mentioned in NBR10152, noise level to be 65dB(A) and NC not higher than 60dB
Arrangement	Safety	ENIT	NR 23 - Fire Protection	Working Spaces	23.2	23.2 The workplaces must have exits in adequate number and located so who is in that places may abandon fast and with safety, in case of emergency.	Sufficient exits to be installed in work spaces to allow quick evacuation
Arrangement	Safety	ENIT	NR 23 - Fire Protection	Exits	23.3	23.3 The openings, exits and passing ways must be clearly indicated by plates or light signals, showing the exit direction.	Exits signs to be installed
Arrangement	Accommodation	ENIT	NR 24 - Workplace Health and Comfort	Mess rooms	24.5	24.5.2.1 The company must guarantee, near to the place of meals: a) means for preserving and heating meals; b) place and material for washing utensils used in the meal; and c) potable water.	Mess rooms to have heated and cooled counters, cutlery washing sinks and potable water
Arrangement	Accommodation	ENIT	NR 32 - Health and Safety at Work in Health Facilities	Biohazards	32.2	32.2.4.3 Every place where there is a possibility of exposure to biological agent must have exclusive wash basin to hand hygiene and provided with running water, liquid soap, paper towel and garbage recipient with an opening system without manual contact.	Compartments where exposure to bio-hazards is possible to be provided with sink with running water, liquid soap, disposable towel and hands-free garbage bin
Arrangement	Health	ENIT	NR 37 - Health and Safety in Oil Platforms	Food Services	37.15	37.15.1.1 The operator of the facility must provide fresh and potable water at work sites and work fronts by means of a drinking fountain, similar equipment or portable containers that are clean, hermetically sealed and made of suitable material to ensure the same conditions.	Potable water to be provided at workspaces through drinking fountain, galon water dispensers or other portable dispensers.
Arrangement	Safety	ENIT	NR 37 - Health and Safety in Oil Platforms	Signage	37.17	37.17.1.2 The offshore unit with foreign workers on board shall have the safety and health signaling written also in the English language.	Signs on board to be bilingual Portuguese and English
Piping	Safety	ENIT	NR 37 - Health and Safety in Oil Platforms	Signage	37.17	37.17.4 The pressure in the piping should be indicated next to the sampling or drainage points, in the unit in kgf/cm <sup>2</sup> .	Pressure in kgf/cm <sup>2</sup> to be stenciled at sampling and draining tags
Arrangement	Access & Egress	ENIT	NR 37 - Health and Safety in Oil Platforms	Hazardous substances	37.19	37.19.2 The compartments shall directly access the open area of the unit, be of exclusive use for storing dangerous substances and be located at a safe distance from living areas (including temporary accommodation modules), control room, laboratories, escape routes, flames, sparks and heat.	Compartments storing hazardous materials to have outside access, not be used for other types of material storage, and be located away from living areas (including temporary accommodations modules), control rooms, labs, escape routes, and also away from flames, sparks and heat.
Equipment	Equipment	ENIT	NR 37 - Health and Safety in Oil Platforms	Boilers, pressure vessels, piping	37.21	37.21.1.1 Originally transportable vessels which are permanently attached to the unit installations and which do not undergo any kind of movement during operation shall comply with the provisions of NR-13.	Any pressure vessel permanently installed in the unit, even if designed to be transportable, is to meet NR-13
Safety	F&G Detection	ENIT	NR 37 - Health and Safety in Oil Platforms	Detection and alarm system	37.26	37.26.7.1 For fixed detectors dedicated to points of continuous or intermittent emanation of toxic gases, the first alarm level shall be adjusted to the exposure limits defined by Brazilian or international standards.	Fixed gas detectors set point to meet Brazilian or international standards

## SAMPLE EXCERPT

Our comprehensive document includes expert translations, full search and sort functionality, and easy access to practical considerations for BRZ and BRZ+ notations.



Fully searchable with convenient sorting features



700+ line items covering the entirety of each notation



Easy to understand translations written by engineers for engineers

# ADDITIONAL RESOURCES

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For more information on ABS expertise with floating production units, please visit [www.eagle.org/BrazilFPSOs](http://www.eagle.org/BrazilFPSOs).

Here you can:

- Get the latest updates about ABS expertise in Brazil
- Download white papers on FPSO thought leadership
- Read industry articles on key issues for offshore production
- Access on-demand webinars addressing floating production units
- Review our latest Rules and Guides for floating production installations

Questions? Contact us directly at [GlobalOffshore@eagle.org](mailto:GlobalOffshore@eagle.org).



# CONTACT INFORMATION



## **NORTH AMERICA REGION**

1701 City Plaza Dr.  
Spring, Texas 77389, USA  
Tel: +1-281-877-6000  
Email: [ABS-Amer@eagle.org](mailto:ABS-Amer@eagle.org)

## **SOUTH AMERICA REGION**

Rua Acre, n° 15 - 11° floor, Centro  
Rio de Janeiro 20081-000, Brazil  
Tel: +55 21 2276-3535  
Email: [ABSRio@eagle.org](mailto:ABSRio@eagle.org)

## **EUROPE AND AFRICA REGION**

111 Old Broad Street  
London EC2N 1AP, UK  
Tel: +44-20-7247-3255  
Email: [ABS-Eur@eagle.org](mailto:ABS-Eur@eagle.org)

## **MIDDLE EAST REGION**

Al Joud Center, 1st floor, Suite # 111  
Sheikh Zayed Road  
P.O. Box 24860, Dubai, UAE  
Tel: +971 4 330 6000  
Email: [ABSDubai@eagle.org](mailto:ABSDubai@eagle.org)

## **GREATER CHINA REGION**

World Trade Tower, 29F, Room 2906  
500 Guangdong Road, Huangpu District,  
Shanghai, China 200000  
Tel: +86 21 23270888  
Email: [ABSGreaterChina@eagle.org](mailto:ABSGreaterChina@eagle.org)

## **NORTH PACIFIC REGION**

11th Floor, Kyobo Life Insurance Bldg.  
7, Chungjang-daero, Jung-Gu  
Busan 48939, Republic of Korea  
Tel: +82 51 460 4197  
Email: [ABSNorthPacific@eagle.org](mailto:ABSNorthPacific@eagle.org)

## **SOUTH PACIFIC REGION**

438 Alexandra Road  
#08-00 Alexandra Point, Singapore  
119958  
Tel: +65 6276 8700  
Email: [ABS-Pac@eagle.org](mailto:ABS-Pac@eagle.org)

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