

# Laguna Verde Nuclear Powerplant License Renewal Units 1 & 2

**Stage 5** –Implementation of the commitments of the  
License renewal application


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1. License renewal application commitments
2. Ageing Management Programs (AMP's)
3. 10 criteria of an AMP
4. AMP Classification
5. The Road to License Renewal

# License Renewal Commitments

- According to the regulatory framework established by the CNSNS, license renewal application concludes in 53\* commitments required to ensure that the components and structures of the license renewal scope will continue its function during the extended operation period.

**License Renewal Application**  
**Central Nucleoeléctrica Laguna Verde**  
**Units 1 and 2**



**Facility Operating Licenses**  
**CNLV-1 and CNLV-2**

November 28, 2016

# Ageing Management Programs (AMP's)

- Out of the 53\* commitments on the application, 49 are or will be in compliance with the implementation of the ageing management programs (AMP) in “passive” components and structures.

Ageing Management Commitment List

NO.	Program or Topic	Commitment	Implementation Schedule	Source
1	ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD	<p>The ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD aging management program is an existing program that will be enhanced to:</p> <p>1) Revise Laguna Verde procedures to include those cases when flaw conditions or relevant conditions of degradation are found, evaluated, and qualified as acceptable for continued service applying analytical evaluation. Those areas containing such flaw indications and relevant conditions will be reexamined during the next three inspection periods of IWB-2410 for Class 1 components, IWC-2410 for Class 2 components, and IWD-2410 for Class 3 components. Also, for examinations that reveal indications that exceed the acceptance standards described in IWB-3000, IWC-3000 and IWD-3000, additional examinations are extended to include additional selected components in accordance with IWB-2430, IWC-2430, or IWD-2430 for Class 1, 2, or, 3 components, respectively.</p>	Program to be enhanced prior to the period of extended operation	<a href="#">A.2.1.1</a>
2	Water Chemistry	Existing program is credited.	Ongoing	<a href="#">A.2.1.2</a>

# An AMP must be in compliance with:

#	Criterium
1	Scope
2	Preventive Actions
3	Parameters to be monitored
4	Ageing efect detection
5	Monitoring and trending
6	Acceptance criteria
7	Corrective Actions
8	Confirmation Process
9	Administrative Controls
10	Operational Experience

- Each ageing program was evaluated to comply with the 10 criteria required by the regulatory framework (10CFR54, NUREG-1801)

# AMP's Classification

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- Of the evaluation of the existing programs in Laguna Verde and the program requirements to fulfill the license renewal applicable commitment ; it is determined that the programs could be:

Used as it is

Used with improvements

Used w/improvements and exceptions

A new program

# AMP's – used as it is (-)

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XI.M2 Water Chemistry

XI.M8 BWR Penetrations

XI.S4 Addendum J 10CFR50

X.E1 Environmental Classification

# AMP's – To be used with improvements (\$)

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XI.M3	Vessel cover bolts	XI.M3	External Surfaces 6
XI.M4	Welded attachments of the vessel	XI.M3	Lubricant oil analysis 9
XI.M5	Feedwater nozzles	XI.M4	Borum monitoring 0
XI.M17	Flow accelerated corrosion	XI.M4	Buried tubing and tanks 1
XI.M18	Bolt integrity	XI.M4	Internal coatings 2
XI.M20	Open circuit cooling systems	XI.S1	ASME Section XI Subsection IWF
XI.M21	Closed circuit cooling systems A	XI.S2	ASME Section XI Subsection IWE
XI.M23	Crane Inspection	XI.S3	ASME Section XI Subsection IWL
XI.M24	Compressed air monitoring	XI.S8	Coatings
XI.M26	Fire Protection	XI.E4	Non-segregated phase buses
XI.M27	Fire Protection water systems	LV.E1	230kV SF& Switchyard
XI.M29	Ground metal tanks	LV-OE	Operational Experience
XI.M30	Fuel oils chemistry		



# AMP's – new (\$\$\$\$\$)

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XI.M7	IGSCC	XI.MS	Intake retaining structures 7
XI.M32	Unique Inspection	XI.E1	Wiring and no EQ accesible connections insulation
XI.M33	Selective Leaching	XI.E2	Wiring and no EQ accesible connections insulation I&C
XI.M35	ASME Class 1 Unique Inspection	XI.E3	Wiring and no EQ no-accesible connections insulation I&C
XI.M38	Internal Surfaces	XI.E5	Fuse holders
X.M1	Fatigue Monitoring	XI.E6	Connections
XI.S5	Masonry walls	LV.E2	230-34.5 kV Switchyard
XI.S6	Structure Monitoring		

# The Road to License Renewal

Today  
june 2017

18RU1, aug-sep

19RU1, jan-feb

20RU1, may-jun

2017

2018

2019

2020

**STAGE 4** – Review/approval of the license renewal application.

CNSNS  
Review and  
attention of  
the RIA's by  
CFE  
5th update  
Application  
Approval

◆ 2nd update

◆ 3rd update

◆ 4th update

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**STAGE 5** – Commitments implementation (assessments, improvements, inspections and testing)

Preparing documents, personnel and equipment.

Inspections  
/Testing

18RU1

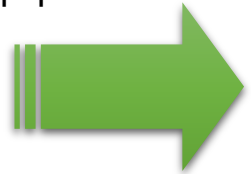
19RU1

20RU1

**C19-U1**

**C20-U1**

◆ PEO Start  
date



**THANK YOU!**

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**Gerencia de Centrales Nucleoeléctricas**

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