

**IRRS Workshop
Sevilla, 3-4 November, 2008**

**IRRS Spain
Part. 3rd “Execution & Main Results”
27 January – 08 February, 2008**

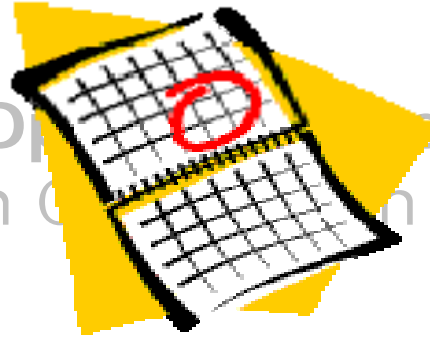
*Juan Carlos Lentijo
Radiation Protection Technical Director
CSN*

Content

- ❑ Conduct of mission
- ❑ Main results summary
- ❑ CSN Action Plan
- ❑ Main remarks & conclusions

Conduct of mission (IRRS Guidelines)

- Calendar: **27th January to 8th February**



- Sunday 27th **Opening Meeting:** IRRS Team Members with CSN Officers

- Monday 28th. **Entrance meeting:** IRRS Team Members, CSN staff

- Tuesday 29th /Thursday 7th. **Investigations, Policy Issues & Report**

- Friday 8th **Exit Meeting**

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 - ❑ ➤ **First contact:** IRRS Team Members / CSN senior management, liaison officers, counterparts...
 - ❑ ➤ **Well prepared and trained.** Oral presentations of counterparts introduce CSN vision of each topic: rehearsed in advance
 - ❑ ➤ Meeting open to CSN staff and representatives from Ministries and other institutions

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Investigations, Policy Issues & Report

- ❑ **Detailed Agenda.** Conduct remaining **flexible**
 - **How to construct the Agenda and examples...**
- ❑ In
- ❑ External interviews
- ❑ Direct observation
- ❑ Daily meeting

Modules grouped (Part I)

Part I: Common Requirements

Module I

Legislative & Governmental Responsibilities

*Legislative and statutory framework
Regulatory body independence
Competence
Resources*

Module II

Responsibilities & Functions of the Regulatory Body

*Defined regulatory activities
Policies, safety principles, criteria
Promotion of regulations and guides
Co-operation with relevant institutions*

Module III

Organization of the Regulatory Body

*General
Staffing & Training
Advisory Bodies
Interfaces with other bodies
Relation with the operator / licensee
International cooperation
Infrastructures*

Module VIII

Management System for Regulatory Body

Module XX

POLICY ISSUES

- **Common for all thematic areas, installations and activities**
- **Group IRRS. Team Leaders and Experts**
- **CSN: Liaison Officers and Counterparts**

Modules grouped (Part II)

Part II: Generic Requirements - Regulatory Activities

Module IV

Authorization

General issues in the Authorization process
Guidance for the operator on the format and content of documents
Formal action for granting or refusal of authorization
Process for amendment, renewal, suspension or revocation of the authorization

Module V

Review & Assessment

Review and assessment
General issues
Definition of the principles and criteria of the judgments and decision process
Compliance of available information on the activity or facility with safety objectives, principles and criteria
Review and assessment regulatory body programme

Module VI

Inspection

Inspection and enforcement - General issues
Inspection type, inspection procedures
Inspection findings and consecutive remedial action
Enforcement actions-graded approach
Curtailing, suspending, revoking of authorization
Inspector's competency

Module VII

Regulations & Guides

Development of regulation and guides - General issues
Feedback and experience reflected in guides
Feedback from internationally recognized standards and recommendations

- **Nuclear Safety (5 Experts)**
- **Radiation Safety (5 Experts): Practices, Transport, Public (Waste-Decomm-Env...)**
- **Regulations and Guides Common Process (3 Experts)**
- **Physical Protection (3 Experts)**
- **Emergency Preparedness (1 Expert)**



Detailed Agenda. Example 1

Part 1 (Modules: I, II, III, VIII and Policy Issues). 1st WEEK
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Mod. I, II, III and VIII. Common Requirements	Mon, 28	Tues, 29	Wed, 30	Thurs, 31	Fri, 1
IRRS-1: SCHMOCKER, LOY, REYES, JENDE CSN-1: MELLADO, LENTIJO, TORRES, ZARZUELA & RODRÍGUEZ. CEPAS (Mod. VIII) Support: MÉNDEZ, PELAYO, SANZ	Entrance meeting -Welcome, introduction of CSN Senior Staff, IRRS team & counterparts -Detailed presentations (Counterparts) Teams: IRRS-All / CSN-All / MITC Room: Conference Room (Floor: -1) Time: 9:00	Group interactions. Possible “one to one” interactions: to be programmed on line Teams: IRRS-1 / CSN-1 Room: Permanent IRRS (Floor 4) Time: 8:30	Interview Plant Manager: <i>Almaraz NPP</i> Teams: IRRS-1 (Partial) Room: Meeting Room (Floor 3) Time: 9:00 to 10:45 Interview <i>Ministry of Industry, Tourism and Trade</i> Teams: IRRS-1 (Part.)/CSN-1 (P) Place: Ministry Headquarters Time: 11:15 to 13:00	Interview Corporative Manager: <i>Cofrentes NPP</i> Teams: IRRS-1 (Partial) Room: Meeting Room (Floor 3) Time: 9:00 to 11:00 Group interactions. Teams: IRRS-1 / CSN-1 Room: Permanent IRRS (Floor 4) Time: 11:00 – Rest of day	
					Rest of the day. Typical daily agenda for Teams IRRS-1 / CSN-1
					Mod. VIII. One to one: JENDE / CEPAS Room: SIC-Cepas (Floor: 0). Time: typical daily agenda
					General discussions Policy Issues: Risk informed approach, Natural radiation, RB Efficiency, Transparency Teams: IRRS (All) / CSN (Liaison officers and others as needed). Time: 15:30 to 16:30. Perm. IRRS (Floor 4)

Detailed Agenda. Example 2

Part 2.1. Nuclear Safety (Modules: IV, V and VI + specific issues of VII). 1st WEEK

Rev.: 270108

Mod. IV, V and VI + VII (specific) Nuclear Safety	Mon, 28	Tues, 29	Wed, 30	Thurs, 31	Fri, 1
<p>IRRS-2: HERTTRICH, BIRO, HALL, JÄVINEN, MATSUURA</p> <p>CSN-2: ZARZUELA (@) VÁZQUEZ (IV), MUNUERA (V) DE LA VEGA+J. GIL (@@) (VI) @ Tues, 29. Rest as needed @@ Support to other groups in generic inspection matters (VI)</p>	<p>Entrance meeting -Welcome, introduction of CSN Senior Staff, IRRS team & counterparts -Detailed presentations (Counterparts) Teams: IRRS-All / CSN-All / MITC Room: Conference Room (Floor: -1) Time: 9:00</p>	<p>Group interactions. One to one interactions: to be programmed on line Teams: IRRS-2 / CSN-2 Room: IRRS-NS (Floor 2)</p>	<p>Plant Inspection NS <i>Garroña NPP#1</i> (see Note *) Interview: <i>Resident Inspector Garroña NPP</i></p> <p>Teams: IRRS (2 Exp.) / CSN (1 Counterpart) Time: Thurs. (afternoon) to Fri (afternoon) (* <i>Alternative plan in case of adverse weather</i>)</p>		
			<p>Group interactions. One to one interactions: to be programmed on line Teams: IRRS-2 (Rest) / CSN-2 (Rest) Room: IRRS-NS (Floor 2) Note: Possible Interview <i>Ministry of Industry, Tourism and Trade</i> Topic: Authorization. Place/Time: CSN/Fri-1, 9:00</p>		



Detailed Agenda. Example 3

Part 2.2. Radiation Safety (Modules: IV, V and VI + specific issues of VII). 2nd WEEK

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Mod. IV, V and VI + VII (specific) Radiation Safety	Mon, 4	Tues, 5	Wed, 6	Thurs, 7	Fri, 8
Medical & Industrial Practices & Radiation Protection Services IRRS-3: OLERUD, KREMBEL (medical), DUFFY, MAKAROVSKA (Industrial) CSN-3: RODRÍGUEZ (@) ÁLVAREZ (Practices), AMOR (Rad. Services) C GIL+J GIL (@@) (VI) @ Tues, 29. Rest as needed @@ Support generic inspect. (VI)	Inspection RP <i>Industrial gammagrafy (SCI)#4</i> Teams: IRRS-3 (Duffy – Makarovska) CSN-3 (1 Count.) Time: Morning	Inspection RP <i>Industrial accelerator (Ionmed)#4</i> Teams: IRRS-3 (Duffy – Makarovska) CSN-3 (1 Count.) Time: Morning	Group interactions. One to one interactions: to be programmed on line Teams: IRRS-3 / CSN-3 Room: IRRS-RP (Floor 1)		Exit Meting Teams: IRRS / CSN (All) / MITC Room: Conference Room (Floor: -1) Time: 9:00
	Group interactions. One to one interactions: to be programmed on line Teams: IRRS-3 / CSN-3 Room: IRRS-RP (Floor 1). Time: afternoons				
Transport: IRRS-4: DUFFY CSN-4: ZAMORA Code of Conduct MAKAROVSKA				One to one... Teams: IRRS-4 / CSN-4 Room: 052 (Floor 0)	
Radioactive Waste, decommissioning & remediation & environmental surveillance IRRS-5: OSOJNIC, LARSSON CSN-5: RAMOS, CID Support: LÓPEZ, RUÍZ, REVILLA	Plant Inspection RP <i>Trillo NPP#7</i> Teams: IRRS (1 Exp.) / CSN (1 Count.) Time: Sunday afternoon to Monday afternoon	Group interactions Teams: IRRS-5 / CSN-5 Room: SRA-Ramos (Floor 4)			
	Inspection RP <i>El Cbril LIRW Repository#8</i> Teams: IRRS (1 Exp.) / CSN (1 Counterpart) Time: Sunday afternoon to Monday afternoon				



Typical Daily Agenda

Typical daily agenda for experts
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Time:	Mon	Tues	Wed	Thurs	Fri	Sat
8:30 – 10:30	Group or “one to one” interactions					Special daily meeting: Sat, 2 nd Time: 9:30 Permanent IRRS meeting room
10:30 – 11:00	Coffee break					
11:00 – 13:00	Group or “one to one” interactions					
13:00 – 14:30	Lunch					
14:30 – 15:30	Group or “one to one” interactions					
15:30 – 16:30	1 st Week: Policy issues / 2 nd Week: Group or “one to one” interactions					
16:30 – 17:00	Coffee break					
17:00 - OPEN	Daily meeting (Permanent IRRS meeting room: Floor 4). Except Fri, 1 st					

Visits (interviews, inspection...)

	Thurs, 31	Fri, 01	Mon, 04	Tues, 05
Part.1. Legislative & Governmental Responsibility	■MITC. Interview			
	■Almaraz NPP Plant Manager. Interview	■Cofrentes NPP Corp. Manager. Interview	■Ciemat (R&D Centre). Interview	
Authorization		■MITC. Interview		
Public Exp. (Waste)	■MITC & Enresa Interview			
Inspections: Nuclear Safety, Radiation Safety, Public Exp. (Waste and decomm.), Physical Protection	■SM Garoña NPP. NS Insp.: Heating Exchangers and UHS Interview Resident Inspectors ■Cof. NPP. Physical Protection Insp. ■Saelices M&M. RP Insp.: Env. Rad. Surv. ■Ciemat R&D. RP Insp.: Dosim. Lab.		■Juzbado. Insp. NS: Operation ■Trillo NPP. RP Insp.: Rad. Efluent ■El Cabril LIW-DF. RP Insp.: LILW Management	
	■Hospital "Ramón y Cajal". RP Insp. Medical Practices: RT, NM, XR		■SCI. RP Insp. Industrial Practice (gammagraphy)	■Ionmed. RP Insp Industrial Practice (accelerator)
Emergency				■SALEM. Emerg. Drill ASO NPP

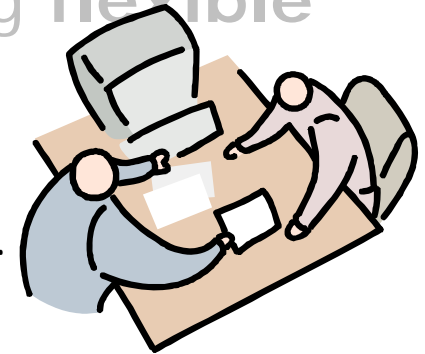


Investigations, Policy Issues & Report

❑ Detailed Agenda. Conduct remaining flexible

❑ Interviews & discussions:

- Counterparts. CSN staff fully available
- Documents, data bases, management system...



❑ External interviews:

- Ministries Industry, Interior, Enresa...
- Ciemat (TSO)
- Licensees



❑ Direct observation:

- Inspections. **Real CSN Inspection Program**
- CSN facilities. **Emergency drill: SALEM (CSN Emerg. Centre)**

➤ Daily meeting. Coordination & feedback

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 - Documents, data bases, management system...
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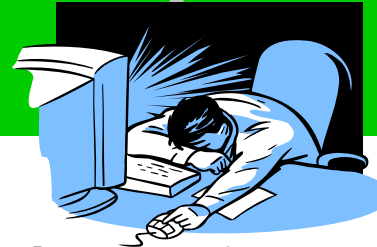
Investigations, Policy Issues & Report

□ Policy Issues

- Selected current challenges & subj. of interest
- Not too many: Agenda, deep discussions...
- Good opportunity to share experience and learnt from each other without pressure
- Helps increase self-understanding



Investigations, Policy Issues & Report



□ Report preparation:

- Continuous process. **Good practice** and necessary
- **Sat. 2nd. Very advanced technical notes:** potential recommendations and suggestions. Discussion with LO
- **Mon. 4th-Tue. 5th. Detailed discussions & feedback** experts/counterparts
- **Wed. 5th. Draft Report** given/discussed with Liaison Officers. Counterparts requested for final comments
- **Thur. 6th. Final Draft Version Report**
- **7 Months (Sep). Final Report** after comments



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Results.

Numerical summary

	Module (According Final Report)	Recom.	Suggest.	Good Practice
1	Leg. & Govern. Responsabil.		2	1
2	Responsab. & Functions RB			
3	Organizat. & Interfaces RB		4	
4	Reg. Activities (Auth./Insp./Rul.)	2	8	9
5	Safety & Security RS		1	2
6	Transport		1	2
7	Emergency Preparedness		3	2
8	Radwaste, public exposure	1	2	2
9	Management System	2	5	1
10	Security	-	-	-
	TOTAL	5	26	19

Final report also includes: comments, observations, etc.

Recommendations (1/3)

Area: Regulatory activities

1. **Nuclear facilities**: CSN should implement a systematic way of compiling and presenting results obtained, trends and consequences drawn from inspections and review and assessment for all nuclear installations where applicable, and should give feedback to licensee. This should be taken in a periodic basis.
2. **Radioactive facilities**: From inspections in X-ray diagnostic and radiation facilities, CSN should built and express an opinion about results obtained, trends and consequences drawn in different practices using radioactive sources, and to give feedback to licensee. This should be taken in a periodic basis.

Recommendations (2/3)

Area: radwaste, public exposure

- 3. Radioactive waste:** CSN should work with other competent authorities to encourage the development and communication of plans for final disposal of spent fuel and HLW, and contribute to setting the appropriate targets and conditions that would, from all points of view, govern the process, so that there is no unnecessary delay in the solution of the problem, and that also gradually would improve the estimates of future costs for the final radwaste management.

Recommendations (3/3)

Area: Management System (MS)

- 4. Audits:** CSN should formalize & implement internal audit program of management processes. Programme should ensure all processes are audited within defined time period. To support this a number of internal auditors should be selected among staff and given training. In connection, a systematic approach to management of non-conformances of processes and products should be developed and formalized
- 5. Management System Reviews:** CSN should develop methodology and implement MS reviews conducted & planned intervals by internal and external resources. Programme should ensure continuing suitability and effectiveness of MS and ability to enable objectives organization to be accomplished

Suggestions

- ❑ Main aim: enhance CSN Action Plan

- ❑ Topics (**presentation of Team Leader**)
 - Introduction new activities. Balance priorities: safety (**1st priority**) & transparency
 - New Technical Advisory Committee
 - CSN Personnel: recruitment, skills, training...
 - Oversight program to strengthen Human & Organizational Factors
 - .../...



Good practices

- ❑ Motivation of CSN staff

- ❑ Topics (**presentation of Team Leader**)
 - CSN sole competent authority NS & RP.
Independent. Transparency. Competent staff
 - Management Syst. Information & documentation
 - Modern tools. SPA, Rx oversight system (SISC)
 - Emergency preparedness and capabilities
 - Waste management system
 - Code of conduct for RS
 - Security
 - .../...

CSN Action Plan

- ❑ **Evolving** from **previous** Action Plan
- ❑ CSN Methodology:
 - Foster & decision: **Highest** organization level
 - Coordination: Management System Committee
 - Fitted real CSN process map (differs from IRRS modules) & CSN organization (process owners)
 - Organization involvement: motivation
 - Many actions: Priorities, focus on important
- ❑ Future: implement, assessment, follow-up...



Remarks and conclusions (1/3)

- ❑ Conduct a **Full scope** mission: huge challenge
 - Real/comprehensive view. Balance of areas
 - Difficult to manage.
 - Special care with security: confidentiality, Team Leader coordination...
 - IRRS Guidelines. OK, but improvement welcomed

- ❑ **Integrated approach** very useful. Needs flexibility to fit real scope installations/activities & organization in country

- ❑ **Policy Issues.**
 - Not many & well selected
 - Open discussions to share experience and learn from each other

Remarks and conclusions (2/3)

□ Programming & conducting

- Good preparation: **key of success**. IRRS team and RB: prepare/review in advance documentation, interviews, presentations...
- Detailed programme needs introduce flexibility
- Discussions: open, frank...
- Availability of staff, facilities...

□ Co-ordination

- Continuous interaction: experts/counterparts
- Double feedback loops: counterparts/Liaison Officers & experts/IRRS team
- **Daily meeting**: excellent framework for co-ordination. Open, frank and focused
- **Language is a challenge**. Misunderstandings

Remarks and conclusions (2/3)

□ Report preparation

- Continuous process. Good practice
- First technical notes. Deliver soon as possible helps to focus discussions and avoid last time misunderstandings and nervous
- Consolidated version report. Only for minor changes

□ Participation of staff

- Challenge but motivation

Main conclusion



Gracias

