RAPPREŻENTANZA PERMANENTI
GĦALL-UNJONI EWROPEA

MALTA

PERMANENT REPRESENTATION
TO THE EUROPEAN UNION

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28 ta' Awissu 2015

Għażiż Dominique,

Notifika lill-Kummisjoni tal-Programm Nazzjonali u tar-Rapport Nazzjonali skont id-Direttiva tal-Kunsill 2011/70/EURATOM dwar il-ġestjoni responsabbli u sikura ta' fjuwil użat u skart radjuattiv

Qegħda nirreferi għall-ittra tiegħek datata 13 ta' April 2015 rigward in-notifika lill-Kummisjoni tal-Programm Nazzjonali u tar-Rapport Nazzjonali skont id-Direttiva tal-Kunsill 2011/70/EURATOM li tistabilixxi qafas komunitarju għall-ġestjoni responsabbli u sikura ta' fjuwil uzat u skart radjuattiv.

F'dan ir-rigward, mehmuż għandek issib l-ewwel rapport nazzjonali dwar l-implimentazzjoni ta' din id-Direttiva.

Dejjem tiegħek

Marlene Bonnici
Ambaxxatriċi
Rappreżentanta Permanenti

Mehmuż: Rapport Nazzjonali skont id-Direttiva tal-Kunsill 2011/70/EURATOM

Copy: Segretarju Permanenti, Ministeru għad-Djalogu Soċjali, Affarijiet tal-Konsumatur u Libertajiet Ċivili

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Malta's National Report in accordance with Council Directive 2011 / 70 / Euratom on the responsible and safe management of spent fuel and radioactive waste

1 Maltese National Programme:

Pursuant to Article 15(4) of Council Directive 2011/70/Euratom, please refer to

- "National Framework for Radioactive Waste Management", approved on 3 October 2014, given in Annex A.
- Pursuant to Article 12(1)c (& Article 14(2)b) of Council Directive 2011/70/Euratom, Maltese disused sources in storage are listed in Annex B.
- Pursuant to Article 12(1)k, of Council Directive 2011/70/Euratom Malta does not have any such agreements. One medical establishment has an agreement for some of its disused sources to be sent overseas.

2 Maltese Report on the Implementation of Council Directive 2011/70/Euratom

Malta Pursuant to Article 14 (of Council Directive 2011/70/Euratom) :

- Malta transposed Council Directive 2011/70/Euratom by virtue of legal notice 186 of 2013 published on 16 July 13, entitled "Management of Radioactive Waste Regulations, 2013"
- The Maltese National Programme as required by article 12 Council Directive 2011/70/Euratom is contained in "National Framework for Radioactive Waste Management" , that was approved on 3 October 2014 (Annex A).
- Details of how Malta implemented the requirements of Directive 2011/70/Euratom are given within: "Malta National Report on the measures taken by Malta to fulfil the obligations laid down by Article 32 of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management" given in Annex C.
- Some of the key issues on the implementation of the requirements of the Directive 2011/70/Euratom taken from Annex C are
    - Storage
        - Disused sealed sources are currently kept in secure on-site storage at various governmental and private user facilities and are subject to RPB inspection.
        - Malta does not have a centralised waste management facility. The National Framework for Radioactive Waste Management (Annex A) envisages that a central storage facility is set up.
    - Future disposal option
        - A viable disposable option will be sought before thirty years have elapsed. The permanent solution (i.e. disposal) will take into account the current inventory; and sources outside of regulatory control recovered due to the campaigns.
        - The following options are being considered:

  - Export of material
  - Bore Hole disposal option;
  - Any other multilateral solution as may become available

- Gaining control over sources outside of regulatory control
  - The Maltese Customs Department monitors imports at major ports of entry and monitor a high proportion of goods in trans-shipment through Malta Freeport.
  - Radioactive material discovered in trans-shipment is to be returned to country of origin.
  - In addition, once the central storage facility becomes available, the RPB is to run campaigns for collection of sources, including schools, laboratories and lightning rods.
- Import and export of radioactive waste
  - RPB will not authorise the import of new sources unless a declaration is provided by the user for the export of the source at the end of its useful life. Until such time as a disposal option becomes available in Malta, RPB will encourage licensed users to explore the possibility of exporting radioactive waste.
- Nuclear Medicine
  - Annual Authorisation for the Accumulation and discharge of Radioactive Waste from nuclear medicine establishments is issued by the Radiation Protection Board (RPB)
  - Unsealed radioactive material arises from diagnostic and therapeutic nuclear medicine. These sites have delay storage tanks and are required to take steps to ensure that the ALARA principal is applied to their radioactive discharges to the environment. Each site is set limits on the activity levels they can discharge through an RPB Authorisation. Annual reporting of discharges to the RPB is mandatory

3 Applicability of Strategic Environmental Assessment Directive (2001/42/EC) to the *"National Framework for Radioactive Waste Management"*

Strategic Environmental Assessment (SEA) Directive (2001/42/EC) was transposed in Malta by Legal Notice 497 of 2010, entitled "Strategic Environmental Assessment Regulations,2010 which came into force on 11 December 2010.

The screening process for the SEA Regulations, 2010 has started for the *National Framework for Radioactive Waste Management.* Once the screening is completed Malta will be in a position to determine whether the *National Framework for Radioactive Waste Management* falls within the SEA Directive.

Annex A

National Framework for Radioactive Waste Management

Forward

Malta's use of radioactive material

Malta currently uses radioactive material in both medical and industrial beneficial applications in limited amounts. Malta also has some radioactive material in storage from past applications.

When there is no further use foreseen for this radioactive material it is defined as being radioactive waste.

The current and past use of radioactive material has led to the production of limited amounts of radioactive waste in Malta

Malta does not have any nuclear fuel activities and does not use, handle or store spent nuclear fuel.

Management of radioactive waste

The objective of radioactive waste management is to enable radioactive waste to be treated in a manner that protects human health and the environment now and in the future without imposing undue burdens on future generations.

In order for Malta to continue to obtain the benefits from the use of radioactive material and to deal with radioactive material in storage from past applications there is a need for Malta to address issues relating to the management of radioactive waste.

The management of radioactive waste needs to be appropriate and proportionate and needs to be in-line with its obligations to the European Union (EU) and the International Atomic Energy Agency (IAEA).

The Government has the ultimate responsibility for the management of radioactive waste and to this end issued Legal Notice 186 of 2013. This Legal Notice states that the Radiation Protection Board, is to create a *National Framework for radioactive waste management* (referred to in this document as the *National Framework*).

This *National Framework* encompasses regulations and the regulators and the *Radioactive Waste Management Programme*.

The *Radioactive Waste Management Programme* is contained in this document and gives the policies and strategies for radioactive waste management.

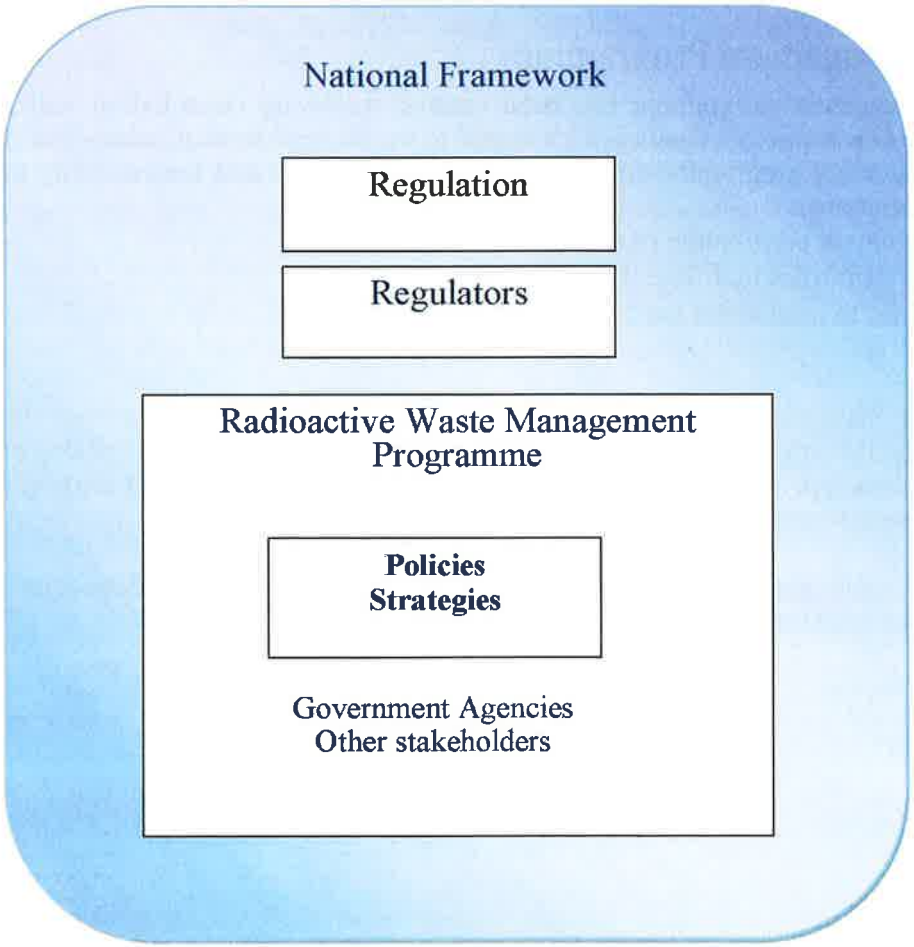
The National Framework

Through the *National Framework* the Government aims to protect the environment and the population from the effects of ionising radiation emanating from radioactive waste.

The *National Framework* consists of:

Regulation:- Legal Notice 186 of 2013, Management of Radioactive Waste Regulations
Regulators:-Member agencies of the Radiation Protection Board

Radioactive Waste Management Programme:- This is required by Regulation 6 of LN 186 of 2013 and contains policies and strategies and elaborates on the responsibilities of the various stakeholders.



Management of Radioactive Waste Regulations

Legal Notice 186 of 2013, Management of Radioactive Waste Regulations, 2013 transposed under the Enabling Powers Act, enabled Malta to transpose *Council Directive 2011/70/Euratom on the establishment of Community Framework for the responsible and safe management of spent fuel and radioactive waste* and the *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management*.
The regulation requires that Malta has an appropriate *Radioactive Waste Management Programme* in place for the management of radioactive waste.
The *Radioactive Waste Management Programme* (as required by regulation 6 of LN 186 of 2013) is based on the principles given in section 3 and is set out in sections 4 and 5of this document

Radioactive Waste Regulators

Regulation 7 of Legal Notice 186 of 2013 states that the Radiation Protection Board has the responsibility for the management of radioactive waste through the actions of its member entities and through the radioactive waste national programme.

Radioactive Waste Management Programme

This radioactive waste management programme has been created following consultation with the relevant stakeholders and sets out the Government's position with regard to the management of radioactive waste.
The radioactive waste management programme aims to provide for the safety and sustainability of radioactive waste management over generations.
The radioactive waste management programme consists of

- –Assignment of responsibilities to different stakeholders
- –Policies and Strategies to implement the policies

Policies
Policies define goals for the management of radioactive waste. The policy aspects have been designed to be valid in the long term and should only need revision in the event of new international obligations or if there is a significant change in the radioactive waste characteristics of Malta. The Policies form a starting point for the development of radioactive waste management strategies
Strategies
Strategies are the means for achieving the goals and requirements set out in the policy. Strategies are the ways and methods to implement the policies.

Guiding principles

The management of radioactive waste in Malta will be based upon the following general principles. Section 5 applies these principles in the different aspects of radioactive waste management.

1. Minimisation of the generation of radioactive waste.
2. Ensure adequate and suitable conditioning of waste.
3. Development of adequate financing schemes to allow for management of radioctive waste.
4. Set up centralised storage facility.
5. No importation of radioactive waste into Malta.
6. Take-back arrangements with the original suppliers for sealed sources.
7. Malta will manage any radioactive waste that cannot be sent overseas (in line with Supervision and Control of Shipments of Radioactive Waste and Spent Fuel) Regulations, L.N. 48 of 2009 and will seek disposal options for such waste in Malta.
8. Gain control over sources that are out of regulatory control.
9. Safe recovery of orphan sources
10. Export of radioactive waste to be encouraged
11. Training of workers.
12. Participatation in international research activites
13. The prime responsibility for radioactive waste resides with the Radiation Employer.
14. To reduce the likelihood of accidents due to, or loss of radioactive wastes
15. Storage of short lived medical unsealed radioactive sources at Radiation Employer's site.
16. To have an appropriate emergency response systems in place.
17. That radioactive waste shall centrally managed in the long term.
18. To enhance public confidence in relation to the radioactive waste management through public consultation.
19. Shall define how and when the identified goals and requirements will be achieved for the management of radioactive waste
20. Shall identify the competencies needed for achieving the goals and how they will be provided
21. Shall elaborate on the ways in which the various types of radioactive waste in the country, including, where appropriate, spent fuel, will be managed during all phases of the radioactive waste life cycle (from cradle to grave);
22. The implementation of waste management options to be proportionate to the waste using a graded approach.
23. Evidence-based and documented decision-making process shall be applied with regard to all stages of the management of radioactive waste
24. The interdependencies between all steps in radioactive waste generation and management shall be taken into account
25. The use of passive safety features for the long term management of radioactive waste.

Responsibilities

To have an effective radioctive waste programme there needs to allocation of responsibilty and accountability. Whereas the government has the responsibility for the long term central management of waste at a national level including final disposal. Primary responsibility for the management of radioactive waste rests with the waste generator under

The allocatioin of the responsibilities will be:

Radiation employers

- Comply with all current and future Maltese regulations
- Establish a safe and secure on-site storage
- Waste falls under a users's obligation to LN44/2003 and as such will need to meet all the obligations under these regulations
- Notifies the RPB when a source reaches the end of its useful working life
- Keeps records of all sources at the site including disused sources
- Provide sufficient funds for the management of waste

Radiation Protection Board

Regulation 7(2) states of Legal notice 186 of 2013 states that:

It shall be the joint duty of the member agencies constituting the Radiation Protection Board to ensure matters pertaining to these regulations are carried out in close collaboration and as efficiently as possible, and the Occupational Health and Safety Authority shall take the lead in co-ordinating the administrative actions.
Regulation 8(1) of of Legal notice 186 of 2013 states that::
"The functions of the Board with respect to these regulations shall be to:

a. Be responsible for the establishment and implementation of the national programme and the key performance indicators to monitor progress towards implementation;
b. To assess the national programme costs and the underlying basis and hypotheses for that assessment, which must include a profile over time;
c. Advice the Prime Minister pursuant to regulation 9(3)b of L.N. 44 of 2003, on the allocation of responsibility to the bodies involved in the different steps of radioactive waste management; in particular, the national framework shall give primary responsibility for radioactive waste to their generators or, under specific circumstances, to a licence holder to whom this responsibility has been entrusted by competent bodies;
d. Advice the Prime Minister pursuant to regulation 9(3)b of L.N. 44 of 2003 on the finance required for the national programme;
e. Maintain an inventory of all radioactive waste and estimates for future quantities, indicating the location and amount of the radioactive waste in accordance with appropriate classification of the radioactive waste;
f. Licence of radioactive waste management activities, facilities or both, including the prohibition of radioactive waste management activities, of the operation of a radioactive waste management facility without a licence or both and, if appropriate, prescribing conditions for further management of the activity, facility or both;
g. Provide a system of appropriate control, a management system, regulatory inspections, documentation and reporting obligations for radioactive waste management activities, facilities or both, including appropriate measures for the post-closure periods of disposal facilities;
h. Perform enforcement actions, including the suspension of activities and the modification, expiration or revocation of a licence together with requirements, if appropriate, for alternative solutions that lead to improved safety;

i. Seek to improve the national framework, taking into account operating experience, insights gained from the decision-making process referred to in Regulation 6(7)(g) of these Regulations, and the development of relevant technology and research;
j. Perform reviews and update as required its national programme, taking into account technical and scientific progress as appropriate as well as recommendations, lessons learned and good practices from peer reviews ;
k. Notify to the Commission of the national programme and any subsequent significant changes.;
l. Report to the Commission on the implementation of this Directive for the first time by 23 August 2015, and every 3 years thereafter, taking advantage of the review and reporting under the Joint Convention. ;
m. Respond to any request from the Commission for any clarification made in connection with the national programme.
n. At least every 10 years, arrange for self-assessments of the national framework, Radiation Protection Board, national programme and its implementation, and invite international peer review of the national framework, Radiation Protection Board and/or national programme with the aim of ensuring that high safety standards are achieved in the safe management of radioactive waste. The outcomes of any peer review shall be reported to the Commission and the other Member States, and may be made available to the public where there is no conflict with security and proprietary information.
o. Meet the Maltese reporting requirements and attendance of meetings under the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management
p. Require that licence holders establish and implement integrated management systems, including quality assurance, which give due priority for overall management of radioactive waste to safety and are regularly verified by the Radiation Protection Board"

Operator of any future centralised storage facility.

- Set up and run centralised storage facilty,
- Obtain the required authorisations from RPB/MEPA
- Take over legal ownership for all disused/spent radioactive sources within its facilities
- Ensures safety and security of disused/spent sources during the long term storage at its facilities
- Perform basic volume reduction and conditioning
- Keeps records of all radioactive sources within its facilities
- Keeps RPB informed about the inventory of disused/spent radioactive sources

Policies and Strategies for the Management of Radioactive Waste

Waste minimisation

Policy	1.To have the minimum number of sources that need to be treated as radioactive waste 2.To ensure that the physical volume of waste is kept small as is safely achievable
Strategy	1.RPB only to give clearance for import of radioactive material for justified uses. 2.The replacement of radioactive sources by non-radioactive alternatives if available. 3.Return of disused sealed sources to the overseas supplier.

Waste Conditioning

Policy	1.Any Conditioning is to allow for future disposal options produce a waste package acceptable for handling, storage, transport, disposal
Strategy	1.Conditioning to be done in accordance with waste acceptance criteria of future storage or waste facility. 2.Until such time as storage/disposal facilities are available the RPB to give advice to users who currently hold sources. The RPB strategy will be •Waste is not to embedded in any permanent matrix such as lead or concrete. •Waste to be shielded using the ALARA principle. •Full documentation to be created for each waste package 3.Any organisation running a central storage facility is to consult with RPB before performing any conditioning. 4.Sources that need to be treated as waste are to have their non-active components removed as long as it does not affect the shielding of the source. 5.Consideration to given to the re-conditioning of sources currently conditioned in large concrete blocks.

Financing of radioactive waste management

Policy	1.To ensure that sufficient funds are available for the management of radioctive waste. 2.The owner of the waste will be responsible for the financing its management. 3.An assessment of the national programme costs and the underlying basis and hypotheses for that assessment, which must include a profile over time.
Strategy	1.Ensure all stakeholders are aware of their financial obligations in the management of their waste.

Public Participation

Policy	1.Seek to keep public fully informed and involved in the long term management of radioactive waste. 2.Public be given the necessary opportunities to participate effectively in the decision-making process regarding radioactive waste management
Strategy	1.This programme and any revisions to go out for public consultation.

Central Storage Facility

Policy	1.Until such time a disposal option is available, a central storage facility is to be set up. 2.Long-lived Sources will be stored in one central storage facility 3.Central store will have a planned operating life of at least fifty years.
Strategy	1.Identify private/government entity to to set up and run storage facility 2.Facility will need to be authorised by RPB/MEPA and will fall under all appropriate Maltese regulations including, but not limited to LN 44/2003 3.Once central facility is available users are to transfer disused sources to it. 4.RPB will not authorise (in terms of regulation 19 of Legal notice 44 of 2003) the storage of disused sources on site once cental facilty is operational. 5.Organisation running the central storage facility is to take ownership for all disused/spent radioactive sources within its facilities 6.Users may be charged for usage of this facility (under the polluter pays principle)

Future Disposal

Policy	1.Indefinite storage is not an option, the goal is to seek a viable disposal option for radioactive waste. 2.Disposal is seen as the final solution for the management of long lived (> 30 years) radioactive waste. 3.Prior to a viable disposal option being found, long lived waste to be stored in central location. 4.Any Maltese disposal option must consider the environmental aspects. Complete environmental risk assessment must be performed 5.In view of the fact that no disposal option has been identified at the moment a disposal option will be sought before thirty years have elapsed. 6.In the event that a disposal facility is set up in Malta, the concepts or plans for the post-closure period of a disposal facility's lifetime, including the period during which appropriate controls are retained, and the means to be employed to preserve knowledge of that facility in the longer term to be considered.
Strategy	1.A viable disposable option will be sought before thirty years have elapsed. The permanent solution (i.e. disposal) will take into account the current inventory and sources recovered due to detection at the ports and sources recovered due to the campaigns. 2.It is likely that the following options could be considered: •Export of material •Bore Hole Disposal option; •Any other multi-lateral solution as may become available 3.The disposal option will need to take into account the nature of the waste, namely: •Total number of existing sources and possible future acquisitions to waste inventory. •Radionuclides, •Activities •Physical state of the source, including any possible degratation in the sources. •That some sources have been conditioned previously in large concrete blocks •Site characterisation

Gaining control over sources that are out of regulatory control

Policy	1.To bring into regulatory control any sources that are discovered. 2.To develop a source recovery plan 3.To aim to detect radioactive material in trans-shipment through Malta 4.Any material discovered in trans-shipment to returned to country of origin
Strategy	1.On discoverey of source within Malta, RPB or CPD to be informed. If required radiological emergency plan to initated. 2.Customs to Monitor imports at major ports of entry, including all goods entering Malta through the Malta Freeport by Customs Deartment. 3.Customs to monitor a high proportion of goods in trans-shipment through Malta Freeport 4.Radioactive material discovered in trans-shipment to be returned to country of origin 5.RPB to to decide on targeted areas may be subject to search within Malta. 6.Once central storage facility available run campaigns for collection of sources, including schools, laboratories lighning rods. 7.Initatives targetted at metal recycling facilities in Malta

Emergency Plans

Policy	1.Radiation employers shall have their own appropriate plans to deal with safety and security of any material in use or in storage 2.RPB/CPD to have ability to respond as required
Strategy	1.RPB to ensure that radiation employers have emergency plans in place through the authorisation and inspection process. 2.RPB/CPD to initiate the National Radiological Emergency Plan when required 3.RPB to keep the radiological emergency plan and the threat assessment updated

Orphan Source Recovery

Policy	1.Recovery performed by trained personnel in a controlled manner paying due consideration to radiation safety issues of workers and the public
Strategy	1.Recovery to be performed in line with the National Radiological Emergency Plan which assigns CPD as the lead technical agency 2.On discovery of source the recovery is to be co-ordinated by CPD as the lead technical agency. 3.Office of the Executive Chairperson RPB to give CPD advice on recovery operations. 4.Immediate action for Category 1, 2 and 3 sources. 5.National radiological emergency to be initiated by either RPB or CPD

Return of radioactive sealed sources

Policy	1.Attempts to be made to send any existing disused sources to storage /disposal facilities in other countries 2.New sealed sources to be returned to supplier once these become disused . 3.Any transport operation do be fully compliant with applicable transport regulations
Strategy	1.RPB will not authorise the import of new sources unless a declaration is provided by the user for the export of the source.

Shipment of Radioactive waste out of Malta

Policy	1.Export of radioactive waste will be encouraged 2.Any export of radioactive waste to be done in conformity with (Supervision and Control of Shipments of Radioactive Waste and Spent Fuel) Regulations, L.N. 48 of 2009
Strategy	1.Until such time as a disposal option becomes available in Malta, RPB will encourage Radiation Employers to explore the possibility of exporting radioactive waste 2.RPB to ensure radiation employers aware of LN 48 of 2009 3.MEPA to Process any applications made in connection with LN 48 of 2009

Imports of Waste

Policy	1.Malta will not accept radioactive waste to be imported into Malta for any purpose.
Strategy	1.RPB will not give clearance for import.

Discharges from nuclear medicine departments

Policy	1.Unsealed nuclear medicine emissions to the environment will be kept as low as reasonably achievable taking into account economic and social factors.
Strategy	1.Unsealed nuclear medicine sources to be stored for as long as reasonably achievable and emissions to the environment must be under a discharge authorisation issued by the RPB pursuant to LN44/2003. 2.Emissions to be subject to radiological assessment following RPB operating procedure.

Education and Training

Policy	1.Persons involved in the handling, transport, storage and possible future disposal shall be be sufficiently trained.
Strategy	1.RPB to enforce the requirements stipulated in LN 44/2003 that their staff have adequately trained. 2.RPB to facilitate participation in any IAEA training activities in the field of radioactive waste management.

Research

Policy	1.Malta will support and participate if possible in any international research initiatives in the management of radioactive waste.
Strategy	1.RPB to keep abreast of any EU/IAEA activities in this area and to get support for such activities. 2.RPB to seek to get any relevant stakeholders involved in any EU/IAEA training activities.

Annex B

Disused sources in storage

Original use	Radionuclide	Number	Max Activity	Total activity	Notes
Industrial NDT	Cs-137	2	Not known	Not known	Sources in storage on private industrial site. Both of them encased in separate $1M^3$ concrete blocks (about 20 years ago)
Industrial NDT	Cs-137	1	Not known	Not known	Source within its projector, in storage on government site
Liquid level indicators	Cs-137	2	Not known	Not known	Both in storage on private industrial site, one encased in $1M^3$ concrete block (about 20 years ago)
Medical	Ra-226	1	Not known	Not known	Scheduled to be exported (2014-15)
Medical	Cs-137		Not known	15.5GBq	Scheduled to be exported 2014-15 (several sources in shielded storage vessel, maximum total activity is known but not the number of the sources within)
Medical	Sr-90	6	2.04GBq	3.5GBq	Scheduled to be exported (2014-15)
Lightning Rod	Am-241	3	Not known	Not known	Two in storage at government site , one in storage at private site
Lightning rods in situ	Am-241	unknown	Not known	Not known	
Laboratory analytical	Uranium and thorium salts	2.23kg uranium salts 0.125kg thorium salts			In storage at one government site. Material declared under safeguards
School sources		unknown	Not known	Not known	

Annex C

MALTA

National Report

on the measures taken by Malta to fulfil the obligations laid down by Article 32 of

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

National Report for the Fifth Review Meeting

List of Acronyms and Abbreviations

ALARA	As low as reasonably achievable
CPD	Civil Protection Department
ECURIE	European Community Urgent Radiological Information Exchange
EU	European Union
EURDEP	European Radiological Data Exchange Platform
IAEA	International Atomic Energy Agency
IRRS	Integrated Regulatory Review Service
ITDB	IAEA Illicit Trafficking Data Base
LN	Legal Notice
MEPA	Malta Environment and Planning Authority
OHSA	Occupational Health and Safety Authority
RPB	Radiation Protection Board
SARIS	Self-Assessment of Regulatory Infrastructure for Safety
TSO	Technical Service Organizations (s)

Section A: Introduction.

Background

This is the first Report Malta has produced for the Joint Convention

The Convention came into force for Malta on 15th December 2013.

Malta is a member state of the European Union with a population of approximately 420,000. Malta lies 80 km south of Sicily and has a land mass of just over 316 km^2

Malta's use of Radioactive Materials

Malta does not have any: nuclear power plants; research reactors; nuclear fuel-cycle activities or any facility producing radioactive material. Consequently many of the requirements under the Joint Convention therefore do not apply.

The amount of radioactive waste in Malta is small owing to the fact that there are only a few users of radioactive material.

The use of radioactive material in Malta is limited to the following applications:

- Diagnostic and therapeutic nuclear medicine
- Bracytherapy
- Industrial gauging
- Industrial non-destructive testing
- Limited use in research and teaching.

This report focuses on radioactive waste arising from medical, industrial and research applications of radionuclides.

Malta's Regulatory infrastructure

Malta's regulatory authority is the Radiation Protection Board, (RPB).

The RPB is an inter-ministerial body with representatives from: Health; Environmental; Occupational Health and Safety and Civil Protection agencies.

The RPB was set up in 2003 and has two full time staff members which co-ordinate the work of the RPB. The individual regulatory tasks are then performed by the member agencies of the RPB.

The RPB is constantly looking to enhance its effectiveness and is currently preparing for an IAEA **Integrated** Regulatory Review Service (IRRS) mission in 2015 by completing a thorough self assessment using using the IAEA Self-Assessment of Regulatory Infrastructure for Safety (SARIS).

Malta's Radioactive Waste Management Structure

Malta is committed to managing radioactive waste in line with all relevant international legal instruments including the *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention) and European Council Directive on a Community framework for the responsible and safe management of spent fuel and radioactive waste (2011/70/Euratom)*

In 2013 regulations (Legal Notice 186 of 2013) were issued which took into account Malta's obligations to the Joint Convention and the Council Directive. As required by Legal Notice 186 of 2003 policies and strategies have been developed and are contained within the National Framework for Radioactive Waste Management.

Applicability of Convention to Malta

In view of the fact that Malta does not have any nuclear fuel activities articles 4 to 10 are not applicable.

Section B: Policies and Practices (Article 32.1 iii,iv,v))

Radioactive waste management policy (Article 32.1 iii)

The management of radioactive waste in Malta will be based upon the following general principles

1.Minimisation of the generation of radioactive waste.
2.Ensuring that there is adequate and suitable conditioning of waste.
3.Development of adequate financing schemes to allow for management of radioctive waste.
4.The setting up of a centralised storage facility.
5.Prohibiting the importation of radioactive waste into Malta.
6.Ensuring Radiation Employers have take-back arrangements with the original suppliers for sealed sources (all suppliers are from overseas).
7.Malta will manage any radioactive waste that cannot be sent overseas (in line with Supervision and Control of Shipments of Radioactive Waste and Spent Fuel Regulations, L.N. 48 of 2009) and will seek disposal options for such waste in Malta.
8.Gain control over sources that are out of regulatory control and the recovery of orphan sources
9.The export of radioactive waste if possible
10.Ensuring workers are adequatly trained.
11.Participatation in international research activites as appropriate
12.The prime responsibility for radioactive waste resides with the Radiation Employer.
13.To reduce the likelihood of accidents due to, or loss of, radioactive wastes
14.Storage of short lived medical unsealed radioactive sources at Radiation Employer's site.
15.To have an appropriate emergency response systems in place.
16.That radioactive waste shall centrally managed in the long term.
17.To enhance public confidence in relation to the radioactive waste management through public consultation.
18.Shall elaborate on the ways in which the various types of radioactive waste in the country, will be managed during all phases of the radioactive waste life cycle (from cradle to grave);
19.The implementation of waste management options to be proportionate to the waste using a graded approach.
20.Evidence-based and documented decision-making process shall be applied with regard to all stages of the management of radioactive waste
21.The interdependencies between all steps in radioactive waste generation and management shall be taken into account
22.The use of passive safety features for the long term management of radioactive waste.

Radioactive waste management practices (Article 32.1 iv)

Waste minimization

1.RPB will only to give clearance for import of radioactive material for justified uses.
2.The replacement of radioactive sources by non-radioactive alternatives if available.
3.Return of disused sealed sources to the overseas supplier.

Waste Conditioning

1.Conditioning to be done in accordance with waste acceptance criteria of future storage or waste facility.
2.Until such time as storage/disposal facilities are available the RPB to give advice to users who currently hold sources. The RPB strategy will be
   a. Waste is not to embedded in any permanent matrix such as lead or concrete.
   b. Waste to be shielded using the ALARA principle.
   c. Full documentation to be created for each waste package
3.Any organisation running a central storage facility is to consult with RPB before performing any conditioning.
4.Sources that need to be treated as waste are to have their non-active components removed as long as it does not affect the shielding of the source.
5.Consideration to given to the re-conditioning of sources currently conditioned in large concrete blocks.

Financing of radioactive waste management

1.Ensure all stakeholders are aware of their financial obligations in the management of their waste.

Public Participation

1.Seek to keep public fully informed and involved in the long term management of radioactive waste.
2.Public be given the necessary opportunities to participate effectively in the decision- making process regarding radioactive waste management

Central Storage Facility

1.Identify private/government entity to to set up and run storage facility
2.Facility will need to be authorised by the RPB and the Malta Environment and Planning Authority and will fall under all appropriate Maltese regulations including, but not limited to LN 44/2003
3.Once central facility is available users are to transfer disused sources to it.
4.RPB will not authorise (in terms of regulation 19 of Legal notice 44 of 2003) the storage of disused sources on site once cental facilty is operational.
5.Organisation running the central storage facility is to take ownership for all disused/spent radioactive sources within its facilities
6.Users may be charged for usage of this facility (under the polluter pays principle)

Future Disposal

1.A viable disposable option will be sought before thirty years have elapsed. The permanent solution (i.e. disposal) will take into account the current inventory and sources recovered due to: detection at the ports and sources recovered due to the campaigns.
2.It is likely that the following options could be considered:
   a. Export of material
   b. Bore Hole Disposal option;
   c. Any other multi-lateral solution as may become available
3.The disposal option will need to take into account the nature of the waste, namely:
   a. Total number of existing sources and possible future acquisitions to waste inventory.
   b. Radionuclides,
   c. Activities
   d. Physical state of the source, including any possible degratation in the sources.
   e. That some sources have been conditioned previously in large concrete blocks
   f. Site characterisation

Gaining control over sources that are out of regulatory control

1.On discoverey of source within Malta, the Radiation Protection Section at OHSA or CPD to be informed. If required radiological emergency plan to initated.
2.Customs to monitor imports at major ports of entry, including all goods entering Malta through the Malta Freeport by Customs Deartment.
3.Customs to monitor a high proportion of goods in trans-shipment through Malta Freeport.
4.Radioactive material discovered in trans-shipment at the Makta Freeport to be returned to country of origin
5.RPB to to decide on targeted areas may be subject to search within Malta.
6.Once central storage facility becomes available, the RPB is to run campaigns for collection of sources, including schools, laboratories and lighning rods.
7.Initatives targetted at metal recycling facilities in Malta

Emergency Plans

1.RPB to ensure that radiation employers have emergency plans in place through the authorisation and inspection process.
2.RPB/CPD to initiate the National Radiological Emergency Plan when required
3.RPB is to keep the radiological emergency plan and the threat assessment updated

Orphan Source Recovery

1.Recovery to be performed in line with the National Radiological Emergency Plan which assigns CPD as the lead technical agency
2.On discovery of source the recovery is to be co-ordinated by CPD as the lead technical agency.
3.the Radiation Protection Section at OHSA to give CPD advice on recovery operations.
4.Immediate action for Category 1, 2 and 3 sources.
5.National radiological emergency to be initiated by either RPB or CPD

Return of radioactive sealed sources

1.RPB will not authorise the import of new sources unless a declaration is provided by the user for the export of the source at the end of its useful life..

Shipment of Radioactive waste out of Malta

1.Until such time as a disposal option becomes available in Malta, RPB will encourage Radiation Employers to explore the possibility of exporting radioactive waste
2.RPB to ensure radiation employers are aware of Waste Management (Supervision and Control of Shipments of Radioactive Waste and Spent Fuel) Regulations, 2009 (LN 48 of 2009)
3.MEPA to Process any applications made in connection with LN 48 of 2009 in consultation with the Radiation Protection Section at OHSA

Imports of Radioactive Waste

1.RPB will not give clearance for import of radioactive waste

Discharges from nuclear medicine departments

1.Unsealed nuclear medicine radioactive waste is to be stored for as long as reasonably achievable and emissions to the environment must be under a discharge authorisation issued by the RPB pursuant to LN44/2003.

2.Emissions to be subject to radiological assessment following RPB operating procedure.

Education and Training

1.RPB to enforce the requirements stipulated in LN 44/2003 that their staff have adequately trained.
2.RPB to facilitate participation in any IAEA training activities in the field of radioactive waste management.

Research

1.RPB to keep abreast of any EU/IAEA activities in this area and to get support for such activities.
2.RPB to seek to get any relevant stakeholders involved in any EU/IAEA training activities.

Criteria used to define and categorize radioactive waste (Article 32.1 v)

Malta has no formalised categories of waste however radioactive waste is defined s by Legal Notice 44 of 2003 as:

means a material of whatever physical form, remaining from practices and work activities or interventions, for which no further use is foreseen at present and which (i) contains or is contaminated with radioactive substances having activity or activity concentration higher than the relevant level of exemption from regulatory control, and (ii) exposure to which is not excluded from these regulations;

Malta currently has the following types of waste:

- *Disused sealed sources in storage.*
- *Nuclear medicine unsealed.*
- *Uranium thorium salts*
- *Lightning arrestors*

Details of material is given in Annex 2

Section C: Scope of Application.

a.Malta does not handle spent nuclear fuel
b.There is no waste that contains naturally occurring radioactive material apart from some former laboratory uranium and thorium salts in storage.
c.There is no radioactive waste within any military or defence programmes.

Section D: Inventories and Lists.

Article 32(2 iii)

Malta does not have a centralised waste management facility (Art 32 2 iii)

Article 32(2 iv)

Disused sources in storage given in Annex 2

Section E. Legislative and Regulatory System

Article 18: Implementing Measures

There is no dedicated radiation/nuclear act in Malta, regulations have been enacted under several different Acts, namely: Enabling Powers Act of the Prime Minister; Health Act; Civil Protection Act; Environmental Act).

The regulatory authority for Malta is the Radiation Protection Board (RPB) which was created by a regulation, namely Legal Notice 44 of 2003 under Enabling Powers Act of the Prime Minister.

Article 19: Legislative and regulatory framework

The regulatory system governing the safety of potential nuclear installations in Malta is included within the Nuclear Safety and Radiation Protection Regulations 2003 (Legal Notice 44 of 2003, published in January 2003)

The scope of Legal Notice 44 of 2003 is to:

1. allow beneficial and justified uses of ionising radiation
2. provide for adequate protection of people in current and future generations against the harmful effects of ionising radiation and for the safety of radiation sources
3. provide for the physical protection of nuclear material
4. provide a mechanism whereby these objectives are achieved through the establishment of a Radiation Protection Board to act as the competent national authority, by co-ordinating the activities of the regulatory authorities in the field of nuclear safety and radiation protection.

Legal Notice 44 of 2003 makes provision for nuclear fuel activities. Any radiation employer who intended to operate any nuclear facility in Malta would be subject to the requirement for authorisation under regulation 19.

To allow Malta to bring in the provisions of Council Directive 2011/70/EURATOM (Community framework for the responsible and safe management of spent fuel and radioactive waste) and to ratify the

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive, Legal Notice 186 of 2013 (Management of Radioactive waste regulations,2013) was issued.

Malta issued legal notice 440 of 2007 (Convention on Nuclear Safety Regulations, 2008)) to enable it to ratify the Convention of Nuclear Safety. This regulation was subsequently amended to allow Malta to transpose Council Directive 2011/70/EURATOM. The amended regulation is legal notice 299 of 2011 : Convention on Nuclear Safety Regulations (Amendment) Regulations, 2011.

Malta issued Control and Security of High-Activity Radioactive and Orphan Sources Regulations, Legal notice 13 of 2006. These regulations implement the requirements of Council Directive on control of high-activity sealed radioactive sources and orphan sources 2003/122/Euratom and the International Atomic Energy Agency's Code of Conduct on the Safety and Security of Radioactive Sources. Malta has two in use that fall under these regulations.

Article 20: Regulatory Body

Structure of the Radiation Protection Board

The RPB was set up as the national competent body for radiation protection and nuclear issues by a regulation, namely Legal Notice 44 of 2003.

The RPB is made up from representatives of four different governmental organizations.

Two full-time personnel in the Radiation Protection Section within the Occupational Health and Safety Authority co-ordinate the work of the RPB.

The internal structure of the RPB is show diagrammatically in the below figure 1.

Structure of Maltese Radiation Protection Board

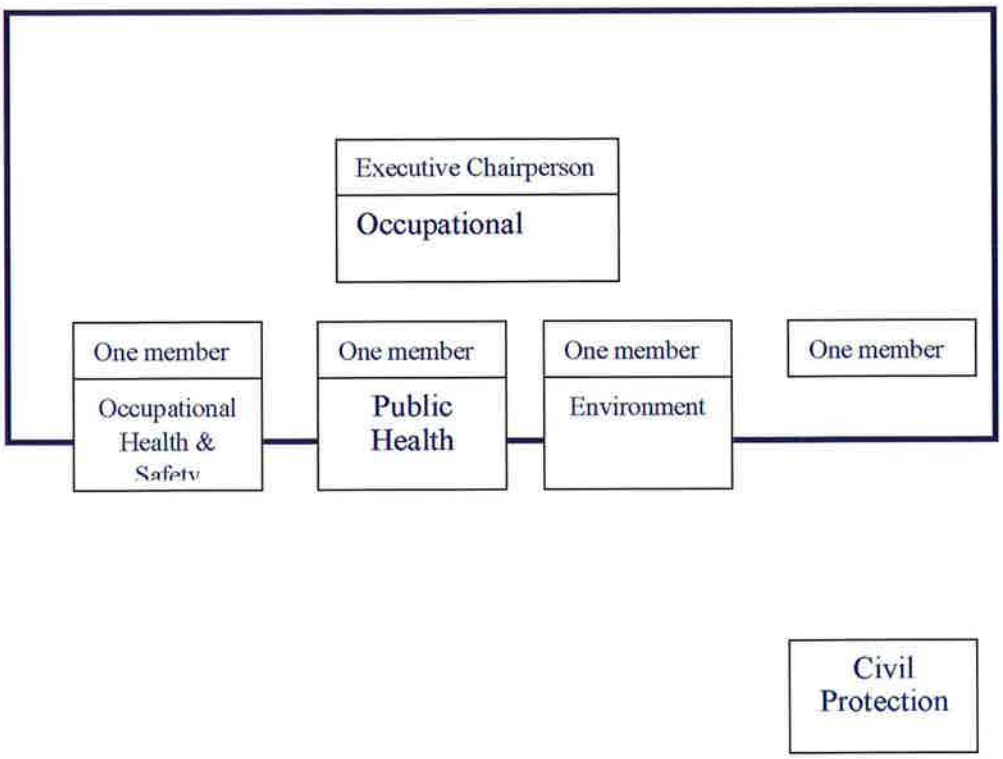


Figure 1. Internal structure of the Radiation Protection Board.

The position of the RPB within the governmental structures in Malta is shown below in figure 2

Position of the RPB within the administrative set-up in Malta:

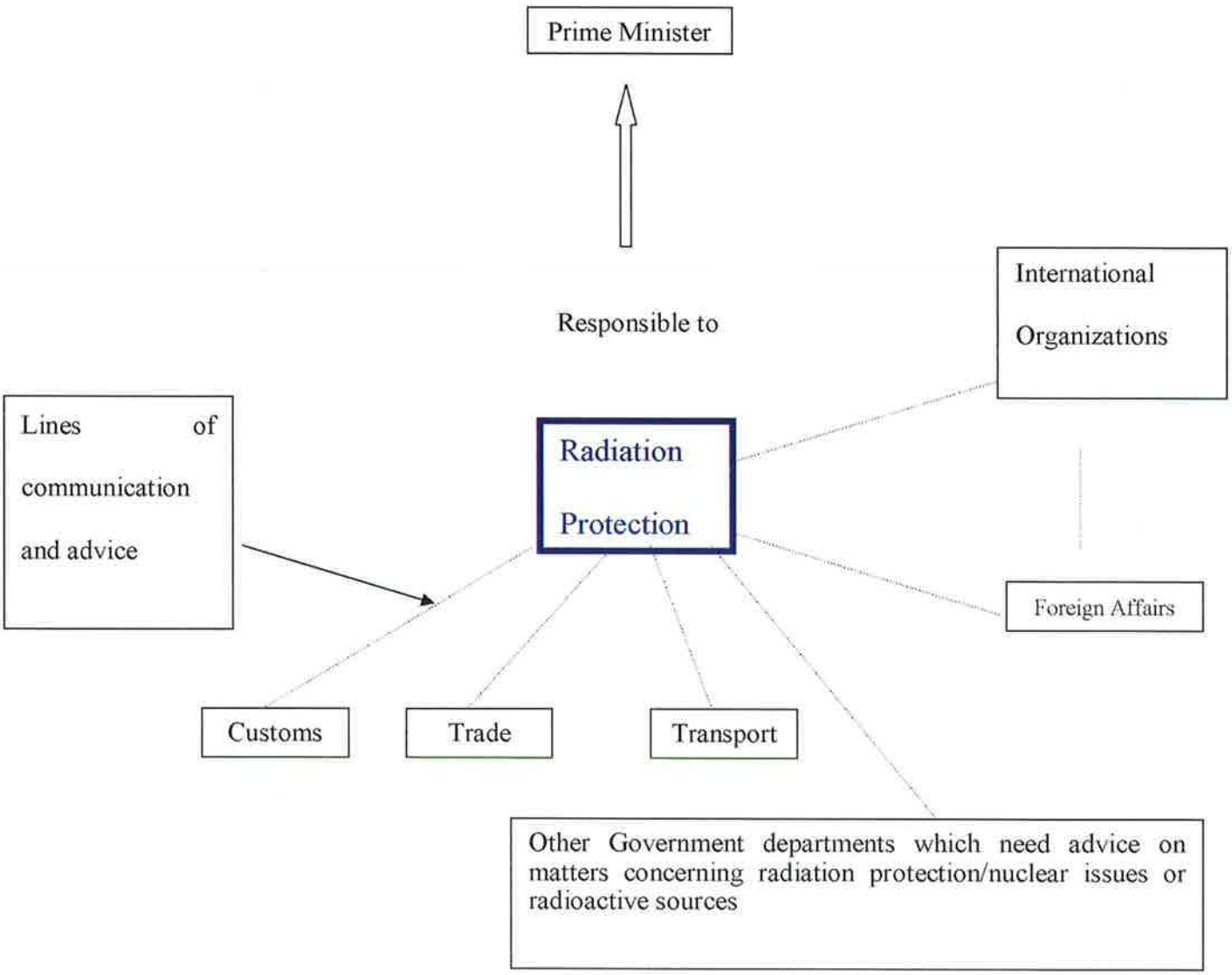


Figure 2. Position of the RPB within the governmental structures

The RPB is subordinate to the Prime Minister, not to any particular ministry.

Legislative and regulatory framework

A complete list of Maltese legislation relating to radiation protection/nuclear issues along with the list of conventions/agreements is attached Annex 1

Functions of the Radiation Protection Board

The main functions of the RPB as defined by LN 44/2003 regulations as:

a) take the necessary measures to improve the co-operation and co-ordination of the government bodies which have responsibility for issues related to occupational health and safety, environment, public health, and civil protection amongst themselves and with other interested parties;

b) tender advice to the government on allocation of responsibilities in the field of nuclear safety and radiation protection when these are unclear or unresolved;

c) co-ordinate the preparation of regulations governing notification, authorization of practices, work activities, radiation sources and establishing radiation protection and safety requirements;

d) define criteria for exclusion, exemption and clearance from regulatory requirements;

e) receive notifications, and issue authorizations and grant exemptions concerning the possession and use of radiation sources, subject to any condition that may be required in the opinion of the Board and to revoke at any time any such authorizations if the Board feels that the required standards or levels of safety are not being complied with;

f) coordinate and conduct inspections and enforcement actions to assess radiation safety conditions and compliance with applicable regulatory and authorization requirements and to protect the health and safety of workers and the public;

g) compile a national register of practices, work activities and sources;

h) gather the required data to enable an assessment of total exposure from all practices and work activities in Malta and including the distribution of the individual occupational and public exposures for each type of practice, and to enable the setting up of a National Register for Occupational Exposure to Ionising Radiation;

i) initiate surveys on background radiation and radioactive contamination of all environmental media;

j) approve the capacity of persons to act as approved dosimetric services and qualified radiation experts for radiation employers;

k) Co-operate with other Regulatory Authorities abroad on relevant issues and fulfil international obligations of which Malta is a signatory.

The RPB is in a process of creating and reviewing its operational procedures.

The Operating Procedures are designed to ensure:

- That all RPB activities are coordinated and transparent and proportionate
- Avoidance of duplication of activities
- Identify the responsibilities of the member agencies of the RPB and other governmental entities

Approved procedures that are currently in place are:

- General Operating Procedures of the functioning of the RPB
- Emergency Response
- Environmental Monitoring
- Safeguards Reporting
- ITDB Reporting
- Medical Regulation Enforcement
- Control of radioactive discharges
- Radioactive Waste Management

Working of the RPB

On average the RPB holds 4-5 formal meetings per year with the core activities performed by two persons from OHSA.

Inspections

Announced and unannounced inspections of sites that use ionising radiation (some 200 sites in total) are performed mainly by the core staff of the RPB. The average number of regulatory site visits averaged at approximately 100 per year over the past three years.
The RPB uses standard checklists

Authorisations (licenses)

The RPB is in the process of issuing authorizations (in terms of regulation 19 of LN 44 of 2003) to Radiation Employers. The duration of the authorization varies from 1 to 4 years.

Technical Service Organizations (TSOs)

Owing to the small size of Malta, technical services normally need to be provided from overseas TSOs, for such services as :

- Personal Dosimetry
- Monitor Calibration
- Laboratory analysis of food/environmental samples.

Section F: Other General Safety Provisions.

Article 21: Responsibilities of the license holder

Under Maltese legislation, for the use of ionising radiation the Radiation Employer has the prime responsibility for safety. The Radiation Employer must justify, optimize and ensure dose limitation is performed, taking actions in order to protect the workers, the patients, the public and the environment from risks arising from the use of ionising radiation.

The Radiation employer is required to seek advice from a Qualified Expert (as defined by LN 44 of 2003)

Article 22: Human and financial resources

Financing of the Radiation Protection Board

There is no separate budget for the RPB, the funding for RPB activities comes from the member entities of the RPB.

Staffing of the Radiation Protection Board

There is no staff employed by the RPB.

Currently the core activities of the RPB are performed by just two persons from the Radiation Protection Section of OHSA. Several activities are delegated to other governmental entities such as Health Ministry, Environment Ministry and the Civil Protection Department.

Article 23: Quality assurance

The RPB is in a process of developing a management system for the RPB. To date the RPB has a set of operational procedures as described under Article 20.

Malta is currently (as of October 2014) performing a self assessment (using the IAEA Self-Assessment of Regulatory Infrastructure for Safety (SARIS)).

The following modules of IRRS are going to be applied:

- Core Questions (GSR Part 1 and GS-R-3)
- Control of Medical Exposure Regulator
- Emergency Preparedness and Response
- Public and Environmental Exposure Control, Waste Management and Decommissioning
- Occupational Radiation Protection
- Safety and Security of Radioactive Sources
- Safe Transport of Radioactive Material

The use of SARIS and the IRRS mission planned for March 2015 is likely to lead to recommendations to improve the RPB quality assurance programme

Article 24: Operational radiation protection

Radiation exposure of workers and the public

Radiation Employers are required to optimize the doses to workers and the public by virtue of LN 44 of 2003.

To protect the environment the RPB has a specific operating procedure for the control of radioactive discharges from nuclear medicine establishments

Environmental Monitoring in Malta

The RPB has a specific operating procedure for radiation/radioactivity monitoring of:

- Food,
- Milk
- Drinking water,
- Sea water
- Soil
- Ambient gamma dose rate,
- Air-particulates collected through high volume air sampler

Article 25: Emergency preparedness

Malta only has threat category IV and V activities (as defined by GS-R-2).

On-site Plans

Radiation employers in terms of Maltese regulations are obliged to have in place onsite emergency procedures.

National Plan

The RPB has a national radiological emergency plan. The emergency plan was completed following a radiological emergency threat assessment (refer to GS-R-2).

The scope of the threat assessment document is to identify the radiological threats in the event of an incident that would require the radiological emergency procedures to be activated.

The scope of the radiological emergency plan document is to:

- Provide a framework for the operation of the activities by government entities to mitigate the effects of the risks identified in threat assessment document
- Outline the government entities likely to be involved and their responsibilities.
- Place responsibilities on each government agency involved in the plan to develop its own procedures

The review of the medical response capabilities in the event of a radiological emergency is under- way but has not been completed.

Resources available for emergency response

Civil Protection Department is fully equipped with field equipment and has undergone training in radiological response with the assistance of the IAEA

The Accident and Emergency Department in the main hospital in Malta, has basic monitoring equipment. An operating procedure for the Accident and Emergency Department as well as training plan for hospital staff is being drafted.

Testing of emergency procedures

Radiological Emergency Plan was first tested post the Fukushima accident in March 2011.

Plan was again tested in December 2013 during the recovery of buried radioactive source.

The key aspects of the recovery operation included

- RPB coordinating response with Civil Protection Department.
- Drawing up recovery plan for the: recovery personnel safety; site preparation; excavation; shielding of excavated source; transport and safe storage of source in new location.
- Specific training given to personnel who would be involved in the recovery.
- Plan was executed with personnel from RPB, Civil Protection Department and using personnel and equipment from the Armed Forces of Malta.

Emergency monitoring

Data capture from the Maltese gamma dose environmental monitor is managed by the Malta Environment and Planning Authority and is sent on an hourly basis to the Civil Protection Department 24 hour response centre and to European Radiological Data Exchange Platform (EURDEP) system. In the event of a nuclear incident in Europe, Malta would access EURDEP real-time data.

Exchange of information

Malta participates in the European Community Urgent Radiological Information Exchange (ECURIE) system and participates in ECURIE exercises.

In the event of a radiological emergency the public would receive information from the Director of the Civil Protection Department.

Article 26: Decommissioning

Malta does not have any current or past nuclear facility that needs/needed decommissioning.

Section G: Safety of Spent Fuel Management.

Not applicable for Malta

Section H: Safety of Radioactive Waste Management.

Article 11: General safety requirements

General requirements laid down Legal Notice 186 of 2013

Policies and strategies have been developed and are contained within the National Framework for Radioactive Waste Management, refer to section B of this report

Article 12: Existing facilities and past practices

Sealed sources in long term storage

Disused sources listed in Section D are currently in secure storage on the sites of Radiation Employers. These sources are subject to RPB inspections.

Unsealed radioactive material

The main use of unsealed sources in Malta is in diagnostic and therapeutic nuclear medicine. There are currently three nuclear medicine sites, two of which with PET technology, and one site performing therapeutic techniques for thyroid disorders.

All the above sites have delay storage tanks and are required to take steps to ensure that the ALARA principal is applied to their radioactive discharges to the environment.

Each site is set limits on the activity levels they can discharge through a RPB Authorisation issued under Legal Notice 44 of 2003

To enable discharge limits to be determined in terms of activity per radionuclide that will ensure discharges are in compliance with the generic dose constraint of an effective dose, applicable to a single practice or work activity and to the mean dose among individuals of the critical group of the public, shall be 0.25 mSv/y as given in Schedule 3 of Legal Notice 44 of 2003.

The RPB issues annual Authorisation for the Accumulation and disposal of Radioactive Waste.

The Radiation employer is required to

- Apply the ALARA principal in any discharges.
- Comply with all conditions of Authorisation to Accumulate and Discharge Radioactive Waste.
- Set up a suitable monitoring programme for the waste
- Send annual returns of all discharges to the RPB

Article 13: Siting of proposed facilities

There is currently no centralized storage or disposal facility in Malta. The manner in which sealed source and unsealed sources is described in report on Article 12.

Article 14: Design and construction of facilities

To date no centralized storage/disposal facility has been identified. The National Framework for Radioactive Waste Management envisages that a central storage facility.

Article 15: Assessment of the safety of facilities

Any future storage facility would need to authorized by the RPB.

Article 16: Operation of facilities

No such facility currently exists.

Article 17: Institutional measures after closure

No such facility currently exists.

Section I: Transboundary movement (Article 27).

Maltese Customs performs portal monitoring on a large percentage of shipping containers in transshipment. This monitoring has led to the detection of finished metal products contaminated with Co-60. On detection arrangements are made to send the items back to the country of origin in accordance with international transport regulations. The regulatory authority of the country of origin is informed of the return shipment.

The RPB and the Customs Department follow a standard operating procedure drawn up between them.

Section J : Disused sealed sources (Article 28).

The list of sources are given in Annex 2

Status of Sources

Industrial NDT

- Two Cs-137 Non destructive testing sources encased in concrete (approximately 20 years ago) stored on private industrial site.
- One Cs-137 Non destructive testing source stored on government site

Liquid level indicators

- One Cs-137 encased in concrete(approximately 20 years ago) stored on private industrial site
- One Cs-137 stored on private industrial site

Medical

- Ra-226, Cs-137, Sr-90 sealed sources formally used for calibration and therapeutic purposes currently stored on government site scheduled to be exported.

Lightning rods

- Three currently in storage, two on government site one on private site, many still in situ.
- Number of lightning rods in situ as yet not determined. No resources have currently been set aside to find out the number of lightning rods in situ.

School teaching sources

- Number of sources in schools as yet not determined
- Survey not yet performed to ascertain total number of such sources.

Legal and Strategy

Refer to article 19.

As required by Legal Notice 186 of 2003 policies and strategies have been developed and are contained within the National Framework for Radioactive Waste Management.

Sources are currently stored at various governmental and private facilities and are subject to RPB inspection.

The National Framework for Radioactive Waste Management envisages:

1. Take back arrangements by the supplier when new sources are purchased
2. The setting up of centralised storage facility for existing sources
3. The export of sources whenever possible
4. Exploring disposal option within Malta.

Section K : General efforts to improve safety .

Article 16: Maltese Integrated Regulatory Review Service (IRRS) Mission

At the time of writing this report the RPB is performing the standard IAEA self assessment (using SARIS software). The main IRRS mission is scheduled for March 2015.

It is expected that the IRRS process will lead to a series of recommendations that should lead to improvements in safety

Annex 1 – Legal – Conventions – ITDB - Declarations

Legislative

Legal Notice Number	Publication Date	Title
LN 156/2001	23-Jul-2001	Comprehensive Nuclear-Test Ban Treaty Regulations. http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=18795&l=1
LN 245/2002	30-Aug-2002	Radiological Emergency (Information to the Public) Regulations, 2002 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=18085&l=1
LN 44/2003	28-Jan-2003	Nuclear Safety and Radiation Protection Regulations, 2003 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=18319&l=1
LN 173/2004	20-Apr-2004	Nuclear Safety and Radiation Protection (Amendment) Regulations, 2004 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=17735&l=1
LN 242/2004	30-Apr-2004	Importation Control Regulations, 2004 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=16612&l=1
LN 416/2004	20-Sep-2004	Dual-use Items (Export Control) Regulations, 2004 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=16695&l=1
LN 13/2006	13-Jan-2006	Control and Security of High-Activity Radioactive and Orphan Sources Regulations, 2006 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=19023&l=1
LN182/2007	10-Jul-2007	Treaty on the Non-Proliferation of Nuclear Weapons (Euratom Safeguards and Additional Protocol) Regulations, 2007 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=19527&l=1
LN 440/2007	28-Dec-2007	Convention on Nuclear Safety Regulations, 2008 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=20432&l=1
LN 48/2009	13-Feb-2009	Waste Management (Supervision and Control of Shipments of Radioactive Waste and Spent Fuel) Regulations, 2009 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=19982&l=1
LN 299/2011	22-Jul-2011	Convention on Nuclear Safety Regulations (Amendment) Regulations, 2011 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=22430&l=1
LN 353/2012	19-Oct-2012	Medical Exposure (Ionising Radiation) Regulations, 2013 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=23969&l=1
LN 186/2013	16-Jul-2013	Management of Radioactive Waste Regulations, 2013 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12065&l=1
LN 187/2013	16-July-2013	Nuclear Safety and Radiation Protection (Amendment) Regulations, 2013 http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=25197&l=1
-	-	Council Regulation (Euratom) 1493/93 on shipments of radioactive substances between States http://ec.europa.eu/energy/nuclear/radiation_protection/doc/radioactive_sources/regulation_1493_93.pdf

Conventions/agreements

Title		Legal Notice Number
Comprehensive Nuclear-Test Ban Treaty	Ratification 23-Jul-2001	LN 156/2001
Convention on the Physical Protection of Nuclear Material	Entry into force 15 Nov 2003	LN 44/2003
Amendment to the Convention on the Physical Protection of Nuclear Material	Acceptance 16-Dec-2013	LN 187/2013
Agreement between the European Atomic Energy Community, its non nuclear weapon Member States and the IAEA	Entry into force 1-Jul-2007	LN182/2007
Convention on Nuclear Safety	Entry into force 13-Feb-2008	LN 440/2007
Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management	Entry into force 15-Dec-2013	LN 186/2013

Illicit Trafficking Data Base

Malta joined the IAEA Illicit Trafficking Data Base on 13th May 2009

Declarations

March 2004 Malta declared its support Code of Conduct on the Safety and Security of Radioactive Sources.

Annex 2 - Disused sources in storage

Original use	Radionuclide	Number	Max Activity	Total activity	Notes
Industrial NDT	Cs-137	2	Not known	Not known	Sources in storage on private industrial site. Both of them encased in separate $1M^3$ concrete blocks (about 20 years ago)
Industrial NDT	Cs-137	1	Not known	Not known	Source within its projector, in storage on government site
Liquid level indicators	Cs-137	2	Not known	Not known	Both in storage on private industrial site, one encased in $1M^3$ concrete block (about 20 years ago)
Medical	Ra-226	1	Not known	Not known	Scheduled to be exported (2014-15)
Medical	Cs-137		Not known	15.5GBq	Scheduled to be exported 2014-15 (several sources in shielded storage vessel, maximum total activity is known but not the number of the sources within)
Medical	Sr-90	6	2.04GBq	3.5GBq	Scheduled to be exported (2014-15)
Lightning Rod	Am-241	3	Not known	Not known	Two in storage at government site , one in storage at private site
Lightning rods in situ	Am-241	unknown	Not known	Not known	
Laboratory analytical	Uranium and thorium salts	2.23kg uranium salts 0.125kg thorium salts			In storage at one government site. Material declared under safeguards
School sources		unknown	Not known	Not known	