

Industry Radiological Protection Coordination Group (IRPCG)

2023/ Q2 Meeting Minutes

Date: 20 June 2023

Meeting No.: 2023/ Q2

Location: URENCO, Capenhurst

Attendees:

Richard Clark	RC	Devonport, MOD	[Chair]
Juliet Porter	JP	Sellafield Ltd	[Secretary]
Karen Beach	KB	Tradebe	
David Edwards	DE	Urenco	
Mark Pettigrew	MP	Babcock	
Anthony Ridgley	AR	Dounreay Magnox Ltd	
Jane Shacklady	JS	Cyclife/ UNS	
Claire Stephens	CS	EDF NNB	
Vicky Talbot	VT	Sellafield Ltd	
Guy Wilson	GW	EDF – Generation	

Opening remarks

RC went through the agenda and outline for the meeting. Apologies were given. A discussion around attendance and future format for the IRPCG meetings seems necessary, this is to be revisited at the end of the meeting.

Safety Message

A discussion was held around preparedness, led by RC. Flu/pandemic was an identified primary risk prior to covid, but RC wondered how seriously / or understood the risk was and whether wider potential for complacency remains with regard to risk assessment in general. There are a number of key pit falls; the use of them after they are written, ignoring current standards, failure to communicate involve the employees.

GW asked whether a review of covid response should be collated by the IRPCG, to form a *lesson learnt* document. VT added that some statistics are returning to pre covid levels, with higher numbers of contamination being found, etc. GW agreed, there are a number of negative behaviours propagating. RC suggested having an agenda point on lessons learnt in the December meeting, which can also be used to capture the positives that occurred, such as engaging with the regulators. **A.23.06.01 JP to add an agenda item to the December IRPCG meeting - to discuss each organisation's enduring lessons learnt from the covid pandemic and to determine the merits of producing a short report as a record of such LFE.**

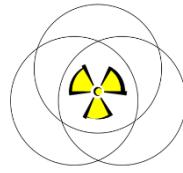
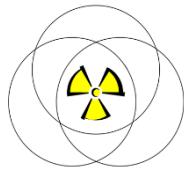
Previous minutes

Minutes accepted.

Career progression ladder

First action was to agree the HP career ladder.

A question was asked around the benefit of including associated roles such as that of a HP specialist trainer within the ladder – generally it was agreed that the ladder should focus on core roles progression. It was considered trainer's would likely come from a training discipline and then specialise. It could fall into a role profile, but seems more likely that RP individuals leave to go to training roles rather than move from training into RP. It was agreed not to include this consideration within the career ladder.



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RC asked whether a typical timeframe to move through the ladder would add value, to give an indicator of how long it could take to progress up the ladder. It was decided that this would complicate the picture. It is dependant on facilities, what role specifically is being carried out etc. There are too many variables.

Career ladder was agreed as appropriate. However, it was considered that the terms *graduate entry* and *graduated career path* didn't convey the correct intention. . Entry may not need to be from graduate level. Agreed on **changing the box *graduate entry* to *graduate entry/ apprenticeship*. Structured/ tiered progression path would also be of benefit.** [A.23.06.02 PT to update career ladder.](#)

The next question is the *so what?* and how may the career ladder and role profiles be used for best effect. To answer this it would help to know what forums we are feeding in to. DE added it feels like there is no coordinated body leading on this. How can we try to influence the right people to take this seriously and take it forward. Feels like it needs a group to lead. CS brought up the lord within the SRP, could this be raised here? AR said the SRP has slightly different agenda, and VT added that as the nuclear industry is the largest component, they will be looked to for the funding.

The SDF do invite key contributors, DES NZ / BEIS have attended in the past for example. There is a mechanism here with potential, if the right dialogue is there to articulate the problem. We collated some information on resource demand ([A.23.06.03 JP to share this spreadsheet on numbers of RP resource required](#)). Those higher up don't understand the scale of the problem. VT said that she isn't confident that when she raises resource to her safety director, it won't necessarily end at the SDF. RC added to do this, we need to understand what outcome we want, what do we want those at the SDF and NZ to do/ what is the end goal. To recruit and retain we need to sell the career path and show the benefits.

AR wondered if a training course to develop professionals (not just graduates) would assist with this. That may encourage other groups to come into a 'skills academy'/ development type scheme. GW said EDF have a skills/ training alliance, Rolls Royce are looking at a skills academy, and a number of others have other skills/ training courses. So, would a joint training schedule help?

GW mentioned a report that was out for comment, so he will ask for this again to review the recommendations. If this is something the IRPCG could endorse then it could give more weight. The report is going to National Skills board. [A.23.06.04 GW to share report on RP skills gap issues.](#) The group can then look to discuss and endorse if appropriate. Intention is ahead of the September meeting, we have an industry ask consolidated, which we can potentially take to the SDF/ regulators interface meeting in December (tbc) in order to further highlight the issue and receive Direction and Guidance.

Issues with resource, training, and image.

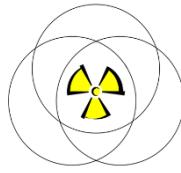
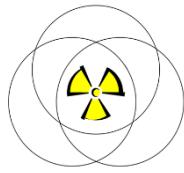
In September we should also consolidate the numbers we feel are necessary to support sustain the RP function – identifying predicted shortfalls such that at the SDF December meeting the scale of the issue can be considered. JP to circulate these figures ahead of September's meeting.

A question was held around university/ syllabus'. If we are focussing on this/ students are hearing the right message. What selling points do we have to give to the recruiters ahead of university intakes? Need to stay ahead of the curves. Personal testimonies seem to sell too.

RP Instrumentations; supply/ demand

Is there a wider issue which needs characterising and communicating? There is an issue around supplies from overseas.

Urenco has grown some in house expertise for instruments, so carry out a number of repairs in house. The monitors are trained and are used to cover the instrument repairs. Overview was given by the QP from Urenco.



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KB added that some basic repairs can be done, but it's the detailed repairs and this expertise that isn't being replaced readily. Manufacturers also not carrying out as many repairs. Supply on instruments can be 6 -12 months. The problem statement is from supply to demand. There is also limited choice in instruments.

A number of suppliers seem to be restoring to pre-covid levels of supply etc. The issue with Thermo is that there was a decision made which reduces their range of instruments.,.

Sounds as though when instruments are sent for repair, some manufacturers are no longer providing a fix. There doesn't seem to be pressure or challenge on this.

Experienced/ knowledgeable instrument mechanics seems to be a large risk.

What training is out there for instruments? Previously, manufacturers would attend the site to go through first line maintenance. So, opportunities to get manufacturer training from a technical basis is reducing.

The IRMF is under SRP now as a technical committee. DE asked if we need to include this role profile in our business. GW responded that we were starting with the initial roles, and then the more specialist roles which support the business would follow. Beyond the supervisor and HP/ RPA function, the second tranche of QP/ dosimetrists/ others and a work plan for this should be set out. It is key to have a reasonable role profile/ definition for a QP, may be a focus of September/ December meetings.

The obsolescence issues and management of this seems it belongs at an organisational level. It doesn't seem there is much the IRPCG can do to resolve this. Sharing OPEX on what is good is something the IRPCG can do. If there are key components which should be stripped down and kept then identify and share this in discussions. There does seem to be a lack of industry information around best practice and for what, individuals seem to stick with what they know and use contacts they have always used.

Is it worth going back to individual organisations and asking QPs if there are any concerns for future instruments? DE suggested it may be more beneficial to influence the IRMF, ask them to add this to the agenda. They are the technical forum who should be looking at things like this; the chair is Simon Threadington currently.

The IRPCG can explain what they feel the problem is and ask what the IRMF's intention is to work towards a resolution. The IRPCG can assist with a role profile, but the other technical concerns around instruments needs further conversation. There is a group led by Joanne Stewart, running under the SRP, looking to address some of the above questions. Seems the IRMF will be leading on this. **A.23.06.05 RC will discuss with S. Threadington to see what is being done. If nothing is being done, RC will look to frame the concerns which we have raised, to pass to the IRMF.**

Calibration facilities and competent persons to support them (QP)

There is a concern in the MOD regarding the number of accredited calibration facilities supporting Defence.. RC was wondering if this was reflected as a concern in wider industry ?

KB noted an issue with resourcing of the facilities. So, turn around for calibration needs to be considered.

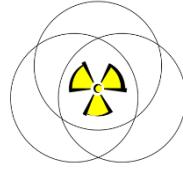
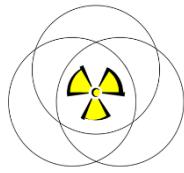
AR added Dounreay use NPL and have seen no real issues. Also looking to upgrade some of their cells.

Reasonably recent issue at James Fisher, again relating to resourcing issues. Lost a number of staff to Ludlem.

Seems there is a general resourcing issue, but the facility issues are more MOD related.

Electronic Dosimetry

Mark 2 EPDs are failing and can no longer be repaired. Large backlog. Phoenix can repair a small number of mark 2 EPDs (< 10 a week, so not a real solution).



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Truedose EPDs (V3) don't have HSE approval. V3 no longer produced, V3.1 is the next model. Devonport proposed to demonstrate a working system for the approval – Cavendish will apply for the approval, but assessment as a test piece will be at Devonport. Providing V3.1 passes testing at UKHSA and Berkely, and HSE approval granted, then numbers will be ordered.

It's worth recognising that a considerable number of units are likely to be ordered – 1,100 units to be ordered for Babcock; 2,500 orders for Magnox; and apparently 10,000 a year for the American market. So, we all need to be aware and careful of this, as it will impact the lead time.

Magnox are on the process of updating everything to introduce truedose. Progressing slowly. Everyone uses different software platforms which causes problems. There is a test running DCS 5 on the platform. Dounreay still have a number of mark 2s in the box. Turn around for repairs is 4 months or so through thermos.

It was suggested that Thermo don't see RP as a major part of their business model and that there may be risk of future support if Thermo reduce interest in this market. GW asked if we should look elsewhere; polymaster and mirion producing EPDs. Other companies may be more willing. Again, potentially need diversity in supply.

EDF having teething troubles getting DCS 5 operational, a number of software problems, with the latest not being looked at by Charthouse until September due to other customers.

Rosyth having similar issues as the mark 2s are dying.

RC posed the question, is there anything we can do as a group to get more collective confidence in thermo? Should IRPCG approach thermo to ask for their confidence in provision of future support noting the forward view of the product; we have concerns through the industry, and intend to put a large investment the Industry is seeking to make in TruDose, KB asked if we could invite them to the September meeting. If a letter was drafted and sent, we could ask for written response or invite them to attend a meeting. CS asked whether mirion (DMC 3000) will also need the same offer to attend a meeting, as they are also offering an EPD looking to go through the approval process (through nuivia). It would be beneficial to get resilience in the market. **A.23.06.06 RC to clarify taking this action forward with P. Thompson.**

GW identified that we are fairly unique in the legal approval process. DE asked if HSE need to accept the higher frequency of updates? Due to the nature of software updates.

Role profiles

Job profile; HP Supervisor/ TL was discussed (level 3).

RC thought the *control of work* aspect of the role didn't come out as strongly as he would have expected. Agreed that this was discussed last time at some length, this is a core which is consistent with most sites. There are then additions which can be expected at individual sites.

A few amendments were considered and agreed, mostly to formatting of qualification column.

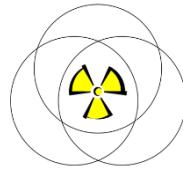
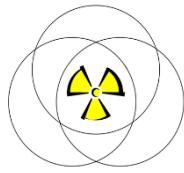
The HP Supervisor job role profile was agreed.

Health Physicist (HP) was discussed at length and agreed subject to inclusion of comments. **A.23.06.07 JP and RC to collate the comments and circulate ahead of formal agreement at September IRPCG meeting. HP Supervisor, HP Monitors and HP role profiles to be circulated.**

Issues of interest

Dounreay

Large PAS campaigns. Bought some Casella apex 2 pumps, was wondering if anyone else uses them or have any other PAS pumps? DE and Urenco in the same position but are trying to get rid of PAS. Urenco had an intake recently detected by bioassay sampling, but nothing detected on PAS. SL moved away from PAS but still do campaigns alongside high volume air sampling.



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Main regulatory interest has been around infrastructure/ electrical transformers etc.

EDF

Main radiography contractors having issues posting back TLDs, through UKHSA, so it is making it difficult to monitor dose, across all three contractors. AR had secondary issue with neutron badge reading. Seems all of the 'extra' dose reading capabilities seems to be a bit slower.

Approached by ONR to apply for radiography consent and potentially HASS. Seems to be a collaborative approach at this stage. Managing, not doing, but still choosing to apply for the consent, as the licensee managing them. The group would be keen for feedback.

GW had some conversations around consent and began looking at the paperwork and discussed with their regulator to ensure they are hitting the right level. Advice was to put the minimum in and go from there. Signpost to appropriate documents. Didn't seem they were in a rush for this to be submitted.

Finished Sizewell outage, 750 man mSv predicted, came in just under this.

Starting to think about transferring a number of sites over to Magnox. Any OPEX on this would be appreciated.

Sellafield Ltd

All 4 consents need to be reapplied for by September. Following review there will be a formal inspection (November). Discharges are excluded for now; the EA permit is going to cover this in the interim. Regulators want the new wired system to be used. Did, again, seem quite collaborative.

A.23.06.08 GW to share some of their draft information on consent application – which has been discussed with a regulator, and kept reasonably generic. To give an indication on acceptable amount of information.

Trend of clothing contamination, definitely back to pre-2020 levels of events and incidents. Biggest worry is the behaviours we are seeing/ degradation of standards. GW also seen a negative trends in behaviours, but it isn't just across RP. RC added this is also being seen at MOD. Is anyone mapping behaviours/ reviewing safety behavioural standards? GW and EDF were mapping this with statistics. Because it is above the targets set the exec are interested. Attitude of working with ionising radiations generally seems a bit more complacent.

Event in March where a cave window was sent offsite, including contamination of personal property, lack of control. Raised to SIR, but little interest from the ONR, they were happy with the investigation.

Contamination event following wearing of tyvek suits. With the warmer weather, Tyvek and activity resulted in excessive sweat which reduced the effectiveness of the suit, resulting in personal contamination to arms. Worth noting.

Tradebe

Asked about hydration following work in C3, and if drinking at the barrier has been heard of. General consensus was that this isn't done, and probably isn't good practice. If it is too hot/ for dehydration, then the workers should probably leave the area sooner.

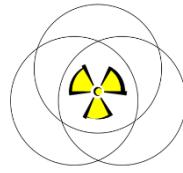
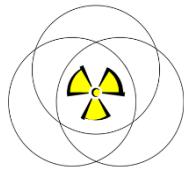
Carrying out a review on the regulatory costs and if it is proportionate to the size of the site.

Still trying to make some progress on jet washing skips and cleaning flasks.

A number of trial underway to support Rosyth, using dewatering and then adding absorbent polymer, so no free liquid remains. Then can be transferred as solid waste. Being driven by there being no certification for a suitable container.

Requires anti-static pipes for iCams to reduce plate out, but struggling to find something appropriate.

Rosyth



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Discussion around members of the public/ others. Have the licensed site, Rosyth park, and military boundary. Moving to stage 2; dismantling the reactor. In terms of safety case, 2 mSv is ALARP, for other workers, but IRRs stating 1 mSv for other persons. VT said Harwell site must have had multiple conversations around this. Concluded to treat others as members of the public, with a 1 mSv dose limit.

Hiring of monitors; were discussing with nuivia. Site would give them experience, conversation around cost then comes in. RC suggested some employee exchange could also be looked in to.

Urenco

Around 6 HP monitors as staff. Have had to bring in some external but have struggled.

Currently looking for a Tritium training course; the site has received some waste which includes tritium, which isn't as familiar on site. The waste team don't have the experience with handling tritiated waste. So if anyone knows any SMEs then that would be beneficial.

Have recruited 3 apprentice monitors through gen 2.

DE added the company is going through a restructure. Increase in demand has resulted in a number of safety cases needed reviewed at short notice – previous expectation was for the plant to get to completion prior to the safety case expiring. Result is a lot of work coming up, and so a programme of recruitment and training is required.

Lining people up to begin preparing consents. 3 different management systems for sources and generators, trying to align/ restructure into one system, and can then apply for consent.

Finding foot foils (Sirius 5 hand and foot monitor, mirion) are puncturing a lot. Could also fall into the conversation around the behaviours. VT said the foils in the VF instruments are more like dust protection, but it doesn't affect the calibration. This may not be the same for different instruments but can discuss outside.

GW recommended dychem mats.

Intake last week, 4 ug/l, uranics in urine, which is four time the limit. Nuivia carry out the dose assessment for this. Think it is an ingestion dose, from liberating a washer/ seal. Didn't report the incident, picked it up on a routine assay. Under new reporting criteria it isn't reportable, unless it is > 1 mSv.

VT asked about criticality belts. There are 2 different chips, 700 and 700H. May need to review what chip is in criticality belts.

Cyclife

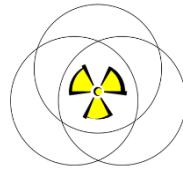
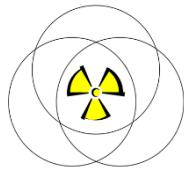
New whole-body monitor installed – an exit monitor (Ludlem). Took around a week to install, now up and running.

On the back of last meeting, Cyclife received some support from Sellafield's PQP in regard to iCams. Now in a much better position.

Devonport

Lots of building now on site as looking towards revalidating structures to support the submarine programme. Operations whilst construction, contractors and behaviours is one of the key focuses of concern.

RC gave brief details of a DRDL source event involving the failure to return the sources to a designated source store , due to lack of communications and newer member of staff. Error wasn't necessarily escalated in the expected manner for management attention – so trying understand why this wasn't raised in the correct manner..



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RC noted from a Naval Base perspective that concerns existed around safety case authors and RP related assessments / assumptions which are too superficial. Looking to get earlier visibility of document outline justifications / production plans so that timely challenge on assumptions can be made.

CDM, Nuclear Installations Act, IRRs

Following establishment of CDM sites on nuclear licenced site, a number of issues seem to appear. Could apply for exemptions, but sometimes the exemption is more onerous than just getting on with the passbook controls, especially if different ADS' are used. Exemptions seem to work better if the ADS is the same.

DE and Urenco have moved towards radiation workers and non radiation workers – rather than this 'monitored workers'. Don't have classified persons. EPDs are booked out and dose logged and sent to the dosimetry service. A single electronic system should help.

At Sellafield they seem to maintain control over the area as the employer. The principal contractors have to abide by the SL management system. EDF is similar in stance.

Meetings

Two site visits and one hybrid meeting at a neutral location seems more appropriate. 3 meetings seems a more relevant frequency, with the option for teams calls for urgent matters if needed; March, July, November avoids a number of awkward dates; schools holidays etc.

10 people seems quorate for a face to face meeting. If you can't attend then an empowered deputy/ comments sent through needs to occur.

VT asked if there was an expectation from SDF – RC said it's usual for the subordinate groups to determine methods of working.

A.23.06.09 JP to discuss with CJ around the AWE date clashing with the SW SRP conference – with possibility of moving AWE meeting left one day in order that attendees could accommodate both events.

EDF willing to host Q1/24.

AOB

The IRPCG has been approached by SDF to take the shielding forum. so it will come to the group for comment, prior to it going up to SDF. It seems the group may be able to offer more valuable comments. No concerns raised and it was agreed that the shielding forum could report to SDF via the IRPCG.

VT asked if there were any other subgroups we would like to influence? May be worth an overall review.

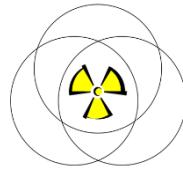
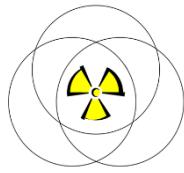
A.23.06.10 JP to circulate document on behalf of RC, on establishment of out of scope levels/ why there is no de-minimums level. VT thinks the EA have adopted this, RC's regulator was not aware it has been adopted. Document to be circulated.

SDF leaving a month for comment on the RPE and changeroom GPGs.

ARC looking to publish values on wounds in a report. We have already pushed back on the use of numbers, as this will lead to very pessimistic safety case assumptions but looks like they are looking to go ahead.

CS raised radiographers wanting written arrangements for radiographers. They have raised *others do it*, the general consensus was that others don't do this. Declassifying the area is used more frequently. When the controlled area is a controlled area, everyone entering has to be classified (in relation to radiography work).

Close of meeting.



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Summary of Actions

A.23.06.01 JP to add a review of the national covid response in relation to RP to September's agenda.

A.23.06.02 PT to update career ladder.

A.23.06.03 JP to share this spreadsheet on numbers of RP resource required

A.23.06.04 GW to share report on RP issues if possible.

A.23.06.05 RC will discuss with S. Threadington to see what is being done. If nothing is being done, RC will look to frame the concerns which we have raised, to pass to the IRMF.

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