FORTIETH MEETING OF THE SCOTTISH NON-NUCLEAR INDUSTRIES LIAISON GROUP (SNNILG) – MINUTES

Date: Wednesday 27th September 2023

Time: 1pm – 4pm

Location: Hybrid – Videoconference & HSE Offices, Glasgow

Attendees: SEPA – chair & secretariate, Health and Safety Executive (HSE), Scottish Schools Education Research Centre (SSERC), Society of Radiological Protection (SRP), Environment Agency (EA), Offshore Energies UK (OEUK), Institute of Physics and Engineering in Medicine (IPEM), National Health Service GGC (NHS GGC), NHS Tayside, ONR Transport, Ministry of Defence (MOD), Association of University Radiation Protection Officers (AURPO), Scottish Government (SG), Scottish Radiation Protection Advisers (SRPA), UK Health Security Agency (UKHSA).

Apologies: Northern Ireland Environment Agency (NIEA), Office for Nuclear Regulation ONR Safeguards

1. Welcome, introduction and apologies

As noted above

2. Actions arising

New action: SEPA to arrange a demonstration to SNNILG of their Dose Assessment Tool – Ongoing, an update will be provided once the tool is finalised.

New action: SEPA to look into whether the SPRI data returns can be used as the EASR data returns.

SEPA accepts the SPRI return as satisfying the Authorisation requirement to make an annual waste return. This will only apply to those Authorisations with an annual return requirement. Those Authorisation Holders with requirements to make returns to SEPA at other frequencies, or who are required to report disposals other than discharges to the environment, will need to continue with existing arrangements. Authorisation Holders who are required to make separate submissions or who wish to continue to make separate submissions of their annual waste return may continue to do so but will also be required to make a SPRI return.

If the permit limits are monthly rather than annual, the monthly discharges should be listed in SPRI if not submitting an annual return. SPRI returns can be used for EASR returns but not vice versa as SPRI asks for additional data that isn't captured in the EASR annual waste return form. If the SPRI form does not list all nuclides you need to report against, on the Return Information tab complete the Additional Pollutants box and the SPRI team will follow up with you.

A reminder that the EASR annual data return forms are available on the SEPA website: Submit data | Scottish Environment Protection Agency (SEPA). Additionally, the requirement to submit annual returns is in the standard conditions of your authorisation and should be compiled with as SEPA won't send updates/reminders every year. If there are any queries regarding data returns please email RSnotifications@sepa.org.uk

New Action: SEPA to invite CTSA to give an update at the next SNNILG meeting in September - Agenda item today's meeting

New Action: SEPA to provide an Operation Fieldfare update to SNNILG – Will be covered in SEPA update

3. CTSA update

CTSA gave an update on the latest UK threat level. They briefed SNNILG on their advisory roles and outlined what to expect at a CTSA visit to inform the UK Environment Agencies that source security standards are satisfactory.

No update could be given on the Security requirements for Radioactive Sources document.

Questions were asked on what would be suitable for personal background checks, associated costs and the secure transmission of offshore security plans.

4. SEPA update

General

Agency Board and Chair Recruitment

We have started a period of recruitment for our Agency Board and applications are now open for a new Chair. Recruitment for Board members started this week.

Board members are responsible for the overall direction and performance of SEPA. With multiple appointments available, including Chair, it's an exciting opportunity for individuals to join SEPA and help to shape the future of our environment.

Board members come from a variety of business, environmental health and other backgrounds, and bring with them a wealth of knowledge and expertise, as well as passion for environmental issues. We want our Board to reflect the diversity of the country we serve and value all aspects of diversity including gender, age, background, ethnicity, and education, in our decision-making.

Successful applicants will start their roles on 1 January 2024. Board Chair applications close on 6 October and Board Member applications close on 20 October.

Further information is available from the applications tab on our website.

Operations

Offshore Transition

Good progress is being made with the transition of the offshore RSA style licenses to EASR style permits. We have had resourcing challenges which has meant some delay, but we hope to be issuing the majority new authorisations by the end of the year.

Security Requirements

National Counter Terrorism Security Office (NaCTSO) Senior Leadership Team have made the decision that the implementation of the updated Security requirements for Radioactive Sources can proceed. NaCTSO will therefore continue to work with Regulators to finalise the document and develop plans to implement the document. Due to the differing legislation in Scotland, England, Wales and Northern Ireland, implementation may look slightly different, but will be broadly consistent. Implementation will involve regulatory engagement with document end users and liaison with Counter Terrorism Security Advisors (CTSA) to ensure realistic timescales for the implementation and clarity for the respective sites as to the expectations regarding any improvements required as a result of this update to the Security Requirements.

Fieldfare

Programme to remove caesium irradiators from UK health and research settings, dispose of and replace with safer alternative technologies.

Home Office lead who has been driving this project has now left and recruitment process to find replacement is currently ongoing. Legally Binding Agreement with the funding authority is currently still not finalised and until this is done, no proactive engagement with machine owners will be undertaken. Sign off is expected imminently however, and once this has been received, a programme of engagement will be commenced. In the meantime, work around alternative technologies and practicalities of disposal routes continues.

New Performance Assessment Scheme

Although SEPA continues to assess compliance with permit conditions, we have ceased to apply our Compliance Assessment Scheme (CAS). The last year for which site level compliance was provided under this scheme was 2019. SEPA is currently in the process of developing a replacement for CAS. It will be known as the Performance Assessment Scheme. Summary information is provided in Annex 1 and further information, including FAQs, are available on our website Performance Assessment Scheme | Scottish Environment Protection Agency (SEPA)

Data Returns

The 2022 data for Scottish Pollution Release Inventory (SPRI) was published on SEPA's website on Tuesday 26th September. All RS sites expected to report to SPRI did so and there were no significant outliers in terms of emissions.

The HASS guidance has been updated to change the address where HASS forms should be sent from our Aberdeen Office to now be sent to our Angus Smith Building. Full details can be found in the Standard Conditions Guidance document, available on the SEPA website.

Review of the Outwith Scotland Registration

SEPA has received legal clarification that registrations under EASR cannot be used for high-activity sealed sources (HASS). A number of outwith Scotland registrations do involve HASS, and, as a consequence, we are reviewing this registration. We will be looking at how many registrations are affected as part of our annual inspection. The existing registration will be limited to non-HASS, and we will consider whether it would be better to create a parallel outwith Scotland permit or to just make use of the existing HASS permit. This is likely to result in a future consultation on changes to the Authorisation Guide for radioactive substances activities.

Policy

Radioactive Substances & Nuclear Decommissioning Policy Consultation

Government consultation closed in May. DESNZ shared revised chapters with regulators during Jul/Aug – much improved in terms of concision & clarity. Agencies worked intensively to develop jointly agreed revised chapters to return to DESNZ. DESNZ & DAs aiming for publication in early 2024.

NORM

Repatriation issues of NORM waste from EU and EFTA countries is still ongoing. Letter sent to industry 7th September outlining SEPAs difficulties in progressing notification for export to EU where repatriation is planned.

Integrated Authorisation Framework

SEPA have mapped across the waste, water and PPC activities to different authorisation tiers. We are continuing to draft the waste, water and PPC authorisation guides, application forms etc and aim to consult once the EASR legislation is consulted on by Scottish Government. We are building a web based digital application system for the authorisation guides and application forms.

IAEA Joint Convention

Office for Nuclear Regulation are leading on preparing the UK's 8th National Report on Compliance with the Obligations of the Joint Convention on the Safety of Spent Fuel and on the Safety of Radioactive Waste Management on behalf of UK Government. Whilst this report is predominately nuclear focused, the safety of radioactive waste management includes non-nuclear activities however NORM is not included this reporting cycle although this is being considered for future reports. Together with Scottish Government and other agencies, SEPA will input to the drafting of this report.

IRRS Mission

In October 2019, the International Atomic Energy Agency (IAEA) undertook an Integrated Regulatory Review Service (IRRS) Mission to the UK to review the UK's governmental, legal, and regulatory frameworks for nuclear and radiation safety against the IAEA Safety Standards. During the mission, the Review Team conducted interviews with government and regulators, as well as visiting a selection of sites to observe regulatory interaction with regulated organisations. The conclusions of the mission were delivered in a report (Nuclear and radiological safety: review of the UK framework 2019 - GOV.UK (www.gov.uk)), which highlighted that overall the UK's governmental, legal and

regulatory frameworks for nuclear and radiation safety were in good alignment with the IAEA Safety Standards. The UK received recommendations and suggestions on ways in which UK alignment with the IAEA Safety Standards could be improved or enhanced, and a follow-up IRRS Mission is scheduled for January 2024 to allow the Review Team to return and assess the UK's progress in addressing the recommendations and suggestions. Four of the recommendations (R5, R16, R17 and R18) require action to be taken by SEPA, and we are currently in the process of addressing and reporting on these ahead of the follow-up mission.

Radioactive Substances Objectives and Principles Document

The Guidance on Requirements for Authorisation (GRA) for near surface and geological disposal are currently being reviewed. It has been decided that the revised guidance will no longer include a statement on environment agencies' common fundamental protection objectives and supporting principles.

As a result, SEPA is currently developing a document which will detail our Objectives and Principles for radioactive substances regulation (both nuclear and non-nuclear). This will be a higher level document that will sit above guidance and procedures. The document includes, for each principle:

- Explanation
- Relevant IAEA Fundamental Safety Principles & ICRP Recommendations
- Relevant legislation and policy

A draft document has been produced and internal consultation with SEPA's Radioactive Substances Unit will commence next week. This will be followed by public consultation on the document, which we aim to undertake in early 2024.

Radioactive Waste Advisers (RWA) Approval Board

There have been no meetings of the RWA Approval Board since the last SNNILG meeting. The next meeting of the RWA Approval Board is scheduled for 16 November 2023 and the agenda will include the following items:

- Changes to Magnox Corporate RWA arrangements to include AGR sites transferred from EDF to Magnox
- Survey of states' arrangements for RPE (RPA & RWA), part of project commissioned by European Commission on the review of transposition and implementation of BSSD requirements for RPE, RPO and MPE
- Reciprocal arrangements for RWAs who hold RPA certificates.

Science

SEPA Non-Nuclear Radiological Discharge to Sewer Assessment Tool

The radiological dose assessment tool details an assessment methodology which may be used by SEPA to assess the impact of single or multiple releases to a single sewage treatment works. It may also be used to estimate doses from different departments as part of a single site dose assessment.

This tool is provided openly for use by the non-nuclear user community to provide a common assessment framework to assist with the dose assessment requirements of application. Whilst it is

provided freely, there are a series of conditions on its use and an exclusion of liability. Dose assessments are relatively basic, with no options on consumption and occupancy rates. This is deliberate to ensure that assessments are suitably cautious and provide enough protection of the public that a basic tool can be offered for open use. Should any assessment be modified, then SEPA cannot support the results that are generated as the underlying code may have been modified. A user guide is also provided on the same webpage to enable users to follow a simple assessment.

Updating the tool has been subject to delays as our contractor works through a post-COVID backlog of work, however this has allowed engagement with Scottish Water, who are seeking to provide flowrate and other data for all sites in Scotland. It is anticipated that the tool will be available with upgraded dispersion modelling and biota assessment threshold improvements by the end of January. SEPA are also investigating the radiological capacity of the Firth of Clyde to further improve the combined assessments of all discharges made into the tributaries that feed the Clyde. This will combine behaviour data of radioactive substances in the environment with detailed modelling of the Clyde Estuary.

At the current time, it is still possible to request additionally radionuclides that may be of use within the tool. Should any SNNILG members have any requests for new nuclides, please contact through the Secretariat and we will endeavour to include this at the next update providing modelling data is available.

Radioactivity in Food and the Environment (RIFE) 28 Report, 2023

The 28th annual RIFE report will be published online in early November. The report details the results of monitoring and dose assessments to various groups across the United Kingdom and is a joint publication between the UK environment and food standards agencies.

In 2022, the doses received by members of the public in Scotland were well below the statutory limit of 1.00 mSv. The primary dose value stated is the total dose which accounts for doses from all sources (gaseous, liquid and direct shine). In Scotland, people eating food collected from areas along the Dumfries and Galloway coastline were the most exposed from permitted releases of radioactivity. The exposure in 2022 was approximately 2% of the legal limit, and as in previous years, this was mostly due to the effects of past discharges from the Sellafield site.

Monitoring of NORM in pipelines

SEPA has appointed a contractor to undertake a monitoring, sampling and analysis exercise looking at enhanced NORM within pipelines from oilfields. We are in discussions with descaling operators to enable this work to take place in 2023, however it will depend on work operations and available space. The aim of the project is to provide SEPA will data on what may be possible to be detected through pipelines and to enhance our knowledge in this area.

Monitoring of NORM in offshore water and sediments

SEPA is working with Marine Scotland to undertake an offshore sampling project of seabed sediments, surface seawater and seawater at depth to determine the concentrations of NORM. Again, this is to enhance our knowledge of settlement and dispersion of radionuclides offshore. Results will be made available via the RIFE report for 2023 monitoring.

Dalgety Bay – Radioactive Contaminated Land Remediation Project

During September 2023 a three-year remediation project to remove radioactive 'particles' of radium-226 contaminated objects from the marine environment at Dalgety Bay in Fife came to an end. Approximately 600 m of coastline has been remediated and encapsulated with a geotextile membrane and coastal defence to prevent coastal erosion releasing material from historic dumping activities at the end of the Second World War. Objects, ranging in size from a grain of sand to around half a common house brick, have been detected in the area since Rosyth dockyard identified a contaminated Ra-226 object via routine environmental monitoring (as required by the site permit) in 1990. Since 2010, SEPA gained legal powers under the Radioactive Contaminated Land regulations and had begun formally investigating the site in 2011. The remediation work followed a major SEPA study into the hazards and risks posed by the particles and also an investigation into how the material came to be located where it was found. The investigation found that the Ministry of Defence was the sole Appropriate Person to have caused the contamination. The MOD undertook a voluntary remediation of the coastal site to reduce the risks associated with particles above 10 kBq, thus preventing any permanent association with designated contaminated land. The work took 3 years in part because of a winter stoppage to protect overwintering birds as well as dealing with the difficulties of working within a changing tidal environment. There will now be a period of validation monitoring to assess the efficacy of the remediation and to determine the settlement in the new sea wall and slipway. Following two years of monitoring and verification, SEPA will then take on responsibility for monitoring in the longer term. Due to the nature of the contamination being in an intertidal area, it is expected that there will be a period of settlement where particles may be found and recovered. The local community has been left with an enhanced walkway and the sailing club with a new slipway, providing a positive benefit for the local community. Over the years it is estimated that over 12,000 radioactive particles have been removed, with many particles in excess of the UKHSA's criteria being removed, justifying the remediation undertaken. More information is available on the SEPA website - Dalgety Bay | Scottish Environment Protection Agency (SEPA)

5. Scottish Government update

SCOTTISH GOVERNMENT RADIOACTIVE SUBSTANCES AND NUCLEAR DECOMMISSIONING POLICY TEAM

Four Nations Policy Consultation on UK Radioactive Substances and Nuclear Decommissioning Policy Framework

Scottish Government is working with the UK Government and other devolved administrations to consider the responses to the consultation and develop the revised framework document. Over 300 responses were received with 5 relevant to Scotland.

Scottish Government Higher Activity Waste Policy Public Attitude Survey

We are looking to do some work on wider public attitudes to radioactive waste management to deliver on a commitment made in the 2016 HAW Implementation Strategy. This is intended to compliment the engagement we already do with a range of stakeholders in the sector to inform our work moving forward and will likely take the form of a short survey for the general public.

We are currently evaluating tenders and will work with the selected contractor to develop the survey.

New Member of the Team

SG and NDA have been working together to consider how best to build on Laura Hogg's successful secondment from the NDA to the SG team last year. We now have a new secondee, Oli Smith, from Magnox Ltd. He joined the team on 21st August and will be with us for the next 12 months.

6. Updates from Regulators

ONR Safeguards

See presentation circulated to members on 27th September.

ONR transport

The latest TCA newsletter can be found here: tca-newsletter-q1-23.docx (live.com), the next newsletter is due in October. Information on recent roadside stops can be found here: https://news.onr.org.uk/2023/08/onr-joins-days-of-roadside-action-to-check-on-transport-of-radioactive-material/.

The stops covered various aspects of CDG09 compliance, including the integrity of Class 7 packages, appropriate vehicle markings, proper training and certification of drivers, and the presence of documentation and equipment to assist in emergency situations.

Further stops are planned for later this year.

ONR enforcement since the newsletter was issued are provided below for information (noting that they are not relevant to the medical sector):

July 2023 - ONR issues prohibition notice to Sondex Wireline Ltd - Office for Nuclear Regulation - News

May 2023 - enforcement letter issued to James Fisher Nuclear (JFN) relating to the radiation risk assessment, Local Rules and Contingency Plan in relation to the use of an in-transit store at their Deeside premises. JFN responded to the letter and the associated regulatory issue has been closed. ONR notes that JFN has gone into administration.

August 2023 - enforcement letter issued to Socotec UK Ltd re Radiation Risk Assessment in relation to the transport of Class 7 radioactive material.

ONR has recently updated the guidance in relation to transport emergency planning under CDG schedule 2, this can be found at the ONR website (https://www.onr.org.uk/transport/five-steps-transport-emergency-planning.docx).

HSE

- HSE Staffing: Just had a recruitment campaign for a new radiation Specialist Inspector. Not concluded yet.
- Inspection work: previous work year

241 inspection with a 53% MB rate. Range of consents inspected by specialists. Industrial radiography continues to be a poor performer. IRRIs school inspection campaign – 149 schools across Scotland and England – 56% MB rate. 43 of the schools were in a radon affected area and of

these 23 had not carried out a suitable and sufficient risk assessment to consider radon exposure to staff and students.

The main failings of IRR17 were: Regulation 8 – failing to carry out a suitable and sufficient radiation risk assessment; Regulation 13 – failing to prepare and rehearse suitable contingency plans for radiation accidents; Regulation 15 – failing to provide staff with adequate information, instruction and training; Regulation 28 – failing to carry out leak tests on radioactive sources at the required frequency; Regulation 29 – failing to account for radioactive materials to the required standard; and Regulation 30 – failing to keep radioactive materials in a suitable store.

Many schools were found to have the necessary arrangements in place but they were not being followed or adhered to. Further liaison with SSERC and CLEAPSS.

- Inspection work: current work year
  To date in this work year have completed 52 inspections across a range of consents and registrations with a 48% material breach rate. IRRIs to inspect approx. 90 industrial gauging applications – early indicators show poor management of this work regards IRR17.
  Specialists will inspect targeted registration work from 1st October until new RADAN system starts in earnest.
- Prosecutions
  - Terril Bros – radiography company – enclosure radiography without suitable controls in place.
  - Kingswood School – radon overexposures to multiple children
  - Gemini Technology – unsafe work with a maintenance calibration unit following an incident.
  - Press release for each on HSE website - Press release | HSE Media Centre
  - Other investigations progressing – may be further prosecutions – up to HSE Legal Services Division now.
- RADAN – new authorisation system starts on 2nd October 23 (this applies to Northern Ireland too). Consent application will require submission of a safety assessment for review by inspector and inspection before consent is granted. From 2nd October 23 will notify targeted current consent holders to submit a safety assessment – they will have 3 months to submit – aim to clear backlog in 5 years. Estimate approx. £5k for a consent application. By April 24 radiation generator registration holders will need to submit additional information on their work with X-ray (no charge). Full guidance and safety assessment templates will go live on HSE website on 2nd October 23. Consent enforcement will change from 2nd October in line with permissioning regime enforcement in EMM.
- Next work year – new radiation workplan will be devised early in 24. Will be concentrating on RADAN.
- IAEA IRRS return mission – January 24. HSE finalising advanced reference material.

NIEA

The 2023 – 2024 inspection programme is progressing as normal: no particular issues have been identified so far. There have been no recent incidents regarding ongoing issues such as inappropriate disposal of sentinel node biopsy waste or problems returning disused Brachytherapy sources.

A hospital in Belfast has recently started treatment using Lu-177: staff would be interested in taking part in discussions with other users of Lu-177.

Staff changes – The current temporary Chief Radiochemical Inspector will finish in this role at the end of September. A new temporary Chief Inspector will be in place from 1st October.

Work is continuing to develop NIEA's proposed new Environmental Permitting Regime. A policy consultation on the proposal has been delayed due to the current political situation in NI. The timescale for having the new regulations in place is still April 2026.

NIEA has continued to work with the other UK environmental regulators on issues such as Project Fieldfare, the response to the IRRS mission and revision of guidance for radioactive source security.

Environment Agency

The UK Regulators Implementation Group continue to support NatCTSO to finalise the revision of the Security Requirements. We are hopeful this will be completed by end of 2023. We expect the earliest go live would be 1 April 2024. Before we go live we will be communicating with the relevant sites. The implementation group is looking at consistency and timing of upgrades and the implementation transitional phase.

Safety-security interface: We are aware of some issues that we have been discussing with HSE. We are looking at how to address these and would be interested in the customer perspective on where these issues arise.

We would ask all sites to be vigilant of people coming to sites claiming to have arranged visits to look at radioactive sources. Make sure they are who they say they are and if you have any concerns phone the police promptly.

The EA is using a system called Quatrix for secure file sharing. Email is not always secure and it is not easy to determine if it is. This system is Defra approved and replaces our use of Egress Switch. Quatrix is free to use for small users. You may see requests from us to use Quatrix to send information to us and we have developed user guidance which is available on request.

Long-lived contaminants. We have talked about long lived contaminants being present in some radionuclides in the past – for example Lu-177 can contain Lu-177m depending on the production method used. This is a reminder to check that you know what (if any) contaminants may be present and you are accounting for these in the permitted accumulation time. This is particularly relevant if you are using novel radionuclides or have recently changed supplier. There is no change to the way we are permitting these and there is no need to list them separately, but ensure accumulation periods are adequate and you have justified these. Drain discharges are likely to be covered in most cases by the other beta gamma discharge group limit.

Excretion Factors: We are aware of a few new techniques (for example, Holmium microspheres) where the radionuclide is not one of the ones listed with a specific excretion factor but in practice the actual excretion factor is likely to be significantly lower than the 100% that should be used. IPEM may look at updating the excretion factor note in the future so if anyone has any radionuclides

that they feel would benefit from having a specific excretion factor specified in the IPEM note please let us know.

We are currently running a Lu-177 research project on environmental monitoring, joint funded with industry. We are also looking at a filter toilet that is available and which reduces liquid doses but creates solid (cartridges) waste.

International Engagement. Post Brexit we no longer have to implement EU Directives. So we are now working more closely with the International Atomic Energy Agency (an Agency of the United Nations). We are involved in several committees that develop international guidance. In particular for NN RSR, three of these committees are of most relevance: Waste Safety Standards Committee, the Radiation Safety Standards Committee and the Nuclear Security Guidance Committee. ONR are the lead UK member for these committees. There are pre-meetings of interested parties with the UK reps for these committees. Users can feed through the EAs. EA attend the RASSC and NSGC pre meetings on behalf of all the EAs. EA is also the UK's alternate rep for NSGC. HSE are the alternate member on RASSC. EA also provide support to ONR at RASSC.

7. AOCB

NHS GCC raised the difficulties they are having disposing metallic sealed sources to landfill despite the information letter that SEPA send out to landfill industry in April 2022. There continues to be misunderstanding from landfill operators and some SEPA landfill inspectors that these sources can be accepted without an EASR permit for radioactive substances from SEPA (subject to compliance with EASR GBRs). A source collection agency has quoted over £4000 for collection of around 20 category 5 sealed metallic sources.

Discussion followed and it was noted that in the Aberdeen area and in the Highland area there has been success in disposing of such sources however west of Scotland continues to have difficulties.

New Action: SEPA to discuss internally with landfill team and discuss if there is a way forward.

8. Date of next meeting

SNNILG expressed a preference for a TEAMS meeting in March and an in-person meeting in September. AURPO offered premises in Edinburgh to host and SEPA will explore options with the new shared Edinburgh Office too.

Wednesday 13th March 2024 TEAMS