Minutes of the 93rd Meeting of the ISOLDE Collaboration Committee

held on February 4th 2022

Present: S. Freeman, H. Fynbo, L. Gaffney, G. Georgiev, S. Gilardoni, K. Johnston, C. Mihai, E. Nacher, D. Naidoo, A. Nannini, G. Neyens, J. Pakarinen, M. Pfützner, G. Rainovski, J.A. Rodriguez, L. Schweikhard (P.T.), N. Severijns, E. Siesling, M. Venhart, J. Vollaire, F. Weinholtz (P.T.)(replacing L. Schweikhard)

Absent: J. Cederkall, A. Lagoyannis, S. Siem

Invited: K. Chrysalidis (P.T.), M. Vilen (P.T.)

The meeting, held in person and via Zoom due to Covid-19 travel restrictions, starts at 09:30 h

1. Introductory remarks

The new ISCC chairperson, G. Neyens, opens the meeting and conveys apologies from L. Schweikhard for his absence. F. Weinholtz, who replaces L. Schweikhard at this meeting, is welcomed.

2. Approval of the Minutes of the last meeting of November 5th, 2021

The minutes from the previous meeting are approved.

S. Freeman informs the committee that he and J.A. Rodriguez met, via Zoom, with representatives of the Iranian institute that expressed an interest in becoming involved in projects at ISOLDE at the ISCC meeting in November. It was established that their interest lies predominantly with the accelerator side of the facility and possible projects were discussed. Their wish to collaborate has been communicated to the management of CERN accelerator departments as well as that of the EP department. The CERN groups involved in accelerator projects at ISOLDE will also be contacted.

3. News from RILIS – *K. Chrysalidis*

The steps that have to be completed for a typical RILIS run, as well as the time they require, are explained. The experiment schedule in 2021was very busy with 21 out of the 23 weeks requiring RILIS operation. This was made up of 17 physics runs and 4 TISD runs. Successful developments included a new Pb laser ionisation scheme that was first used online in September giving an efficiency enhancement of a factor of 10 and contributing to a very fruitful COLLAPS run. Actinide extraction for LISA student projects was also undertaken by the RILIS team.

Further upgrades at RILIS included the new laser shutter design that will be useful for dual separator operation and was used by all RILIS users during 2021. The observation and stabilization system was upgraded by S. Wilkins and tested at the end of 2021; this will decrease setup time and opens up the possibility of using GHM/GLM whilst taking beam from HRS with RILIS. The work completed and ongoing towards compatibility of LIST with both HRS and GPS front ends is presented as well as results of the first PI-LIST beam at ISOLDE. K. Chrysalidis explains that it is possible to switch the

LIST mode on and off during a run but the complexity and cost factor of constructing LIST are reasons why it should only be used when strictly necessary.

Upgrades and operation of MELISSA during 2021 are briefly presented; although MELISSA is the laser system at the MEDICIS facility it also serves as a development and backup system for RILIS.

K. Chrysalidis briefly summarises the status of RILIS lasers in 2021 and goes on to explain the planned laser upgrades in 2022 which will all be funded by the RILIS consolidation project. The committee is told that RILIS has enough lasers and spare parts to operate in 2022 and although there will be some downtime this summer, due to the exchange of lasers, this should not interfere with the physics programme. The timeline for the consolidation project is presented.

Ongoing developments at RILIS are then presented. This includes work on the tuneable lasers and the narrowband Raman laser that is used for high resolution spectroscopy. The LARIS lab refurbishment will allow a RILIS test bench to be used for laser and ionisation scheme development as well as radiation damage tests. The space will also allow storage of lasers and spare parts as well as chemical preparation of dyes and training for newcomers. Collaboration with ISOLTRAP is also ongoing to identify which trans-uranium elements can be produced using RILIS and what yields can be achieved.

The committee is shown the mandate of the SY-STI-LP section (Systems Department- Sources Targets Interaction Group- Lasers and Photocathodes) and the changes to the RILIS team in 2022 are presented. B. Marsh will take over from V. Fedosseev as section leader when he retires.

4. Status of the 30 keV MR-TOF project in relation to PUMA – *M. Vilen*

The general principle behind an MR-ToF (Multi-Reflection Time of Flight mass spectrometer) is briefly explained and the MIRACLS setup, currently under construction at LA2, is presented. The ISOLDE MR-ToF, the goal of which is to provide high purity beams at improved ion capacity, will be installed at RC6 ready to provide beam to PUMA and other travelling experiments. M. Vilen presents the results of simulations of the ISOLDE MR-ToF performance and their agreement with results from the MIRACLS proof of principle experiment. While the best performance is predicted for ions at lower temperatures, the initial design of the MR-ToF aims at using ions from a room temperature Paul trap, which is part of the MIRACLS and ISOLDE MR-ToF projects. It is also explained that the simulations show how separating of ions by the MR-ToF depends on their interaction strength. M. Vilen tells the committee that simulations have shown transmission through the MR-TOF to be excellent, but this still needs to be verified in practise.

The committee is shown the milestones achieved for both MIRACLS and ISOLDE MR-ToF during the period from 2018 to 2022. The remaining tasks and challenges at the MIRACLS setup are discussed. Global supply issues caused by the pandemic have increased lead times and caused unexpected delays. However, once the high voltage safety cage arrives all required parts will be on site. Local delivery issues were also encountered such as high value packages delivered to CERN not being delivered internally or being delivered to the wrong buildings. As no delivery times are communicated, it is difficult to be present in order to sign for deliveries.

A discussion takes place about the local delivery problems experienced by other ISOLDE Users; S. Freeman will gather information about issues encountered, try to identify the best person to contact about improving deliveries and report back to the ISCC at the next meeting.

M. Vilen explains that there are two design options for the ISOLDE MR-ToF at RC6. The first would be to make maximum use of MIRACLS while the second would be a new upgraded design; a new beamline section would be required for either scenario. A preliminary design is presented showing the additional devices that would be required for the second option and the advantages and disadvantages of this option are discussed. Both options would need to be refined based on experience with

MIRACLS at LA2. However, at present, there is not enough workforce foreseen to complete the MR-TOF project at RC6.

The proposed timeline for MIRACLS and ISOLDE MR-ToF is presented. First physics with MIRACLS is planned for summer 2022 while completion of ISOLDE MR-ToF could be seen in 2023.

5. Collaboration Matters – *S. Freeman*

Regarding long term users at ISOLDE, S. Freeman asks that both he and J. Weterings are informed of their arrival well ahead of time especially if office space, which is extremely limited, is needed. These users are also asked to introduce themselves to the ISOLDE Physics Section Leader on arrival as well as the local team. All users are requested to carefully check the requirements associated with the current CERN Covid level. At present the highest Covid Level 4 is in place and users require permission from either S. Freeman or K. Johnston to be able to come on site; this permission should be requested by the institute teamleader.

The Committee is informed that CERN has decided to delay LS3 (Long Shutdown 3) by one year so it will now start in 2026 and last 3 years. This is to allow the work for the High-Luminosity LHC programme in the machine and in the improvements to the ATLAS and CMS experiments (the so-called Phase-2 upgrades) to be completed. However, it is unlikely that the injector systems will be unavailable for the full 3-year period but ISOLDE running will also be affected by any beam dump renovations.

S. Freeman informs the committee that part of the funding received by Spain from the EU Recovery and Resilience Facility (RRF) has been allocated to experiments at CERN including ISOLDE. This funding is to be used in the period up to 2025 and should be used to benefit Spanish nationals and companies, probably on a “best efforts” basis. Transfer of the first instalment to CERN has been made via a bilateral agreement and will be distributed to the CERN Experiments concerned via an agreement that is being developed; this corresponds to approximately 2 million Euros for ISOLDE. The projects that are to be supported at ISOLDE are the ISOLDE Superconducting Recoil Separator (ISRS) and HISTARS, the LaBr fast-timing array for use with Miniball represented by I. Martel and L. Fraile respectively. The ISOLDE Spokesperson will act as the resource manager working closely with both project leaders. The committee agrees to invite I. Martel to present the use of these funds at the next ISCC meeting.

It is reported that the EU project EUROLABS has been fully funded which should mean a sum of 330keuros will be available to support subsistence for ISOLDE Users during the period covered by the project. The grant agreement is supposed to be signed in April with the project expected to start 1st September 2022. Hence, collaboration support for users until the start of the project is still essential and may also be required beyond this for users who might not qualify for EU support, depending on the contents of the grant agreement.

The committee hears that the implementation of the beamline for PUMA@ISOLDE has been endorsed by the Injectors and Experimental Facilities Committee. Project technical coordination has been assigned to O. Aberle and E. Siesling; work is on-going to define the mandate of the coordinator and then project definition, refine timescales, resource needs etc. will be developed. The committee agrees that it is important to define precisely what is meant **by the beamline “up to PUMA”** as construction and support for the RC6 line, also including the 30keV MR-ToF, should be part of the project.

S. Freeman tells the committee that, as agreed, the CERN contract of K. Johnston as ISOLDE Physics Coordinator has now been extended until September 2023. The committee is asked to consider the appropriate length of appointment for this position before the next hiring process begins (late 2022)

especially given the increasing complexity of ISOLDE and the Physics Coordination role. Historically the contract of ISOLDE Physics Coordinator has been for 3 years, but recent post-holders have had their contracts extended.

It is explained that the APPEC-ECFA-NuPECC Diversity Charter, that was circulated to committee members before the meeting, resonates with CERN Diversity and Inclusion Programme. The ISOLDE Collaboration agree to support the Diversity Charter of APPEC, ECFA and NuPECC in all its contents. S. Freeman will sign the charter on behalf of the collaboration and inform the user community of the collaborations support for the charter while asking them to fill in the charter's diversity survey.

M. Pfützner informs the committee that a new funding contract was signed in Poland at the end of 2021. Hence, funds will be available to pay the Polish ISOLDE collaboration membership fee for the period 2021 to 2026. However, unpaid fees for previous years are not allowed to be paid under this contract hence Poland will not be able to pay the approximate 77kCHF missing fees for 2019 and 2020. The committee is aware of the great efforts made by the Polish user community to try to find the funds to pay the collaboration fees for 2019 and 2020 so agrees to cancel this debt.

The committee is told that CERN has received a letter from R. Pain, IN2P3 Director, stating that France has withdrawn its letter of withdrawal from the ISOLDE Collaboration after the ISCC agreed to set up a resource board in accordance with new CERN General Conditions. The committee approved the updated list in Annex 4 of the ISOLDE MoU that now includes all French participants. The ISCC approved the procedure of recovering a country's subscription invoicing more than one organisation listed in the MOU Annexes; specifically, the ISCC approved the division of the French contribution between IN2P3 (50k CHF) and CEA (10kCHF).

At the beginning of the year, CERN requests data on publications and PhD theses from ISOLDE which is presented to the committee. The number of publications in 2021 is impressive considering the effects of LS2 and the lack of conferences during the pandemic.

6. Finance and FRB – *S. Freeman*

The collaboration income and expenditure for 2021 is presented along with the evolution of the account balance since 2016. The account balance has been increasing since 2016 although the yearly rise is slowing. S. Freeman proposes a budget for the collaboration for 2022 using expected income from member states/institutes and foreseen expenditure. This includes funds allocated for general purpose equipment, suggestions for which are welcome and should be sent via email to S. Freeman. The proposed budget allocates all the income to expenditure items for 2022, to within a contingency to avoid problems should a contribution fall outside of the financial year. The committee approves the proposed budget for 2022.

It is noted that the accumulated account balance could be made available for ISOLDE improvements. As the final HIE-ISOLDE repayment will be made in 2023 a similar amount could be additionally available for investing in the facility up to the end of LS3, assuming income and expenditure are in line with previous years.

The institute membership of the Institute of Experimental and Applied Physics of the Czech Technical University (IEAP CTU) was initially valid for the 3-year period from 2019 to 2021. The committee agrees to extend the institute membership of IEAP CTU until the Czech Republic is able to become a full member of the collaboration.

At the ISCC meeting in July 2019 the committee approved requests from both Greece and South Africa to extend the period during which their collaboration membership fees were kept at the reduced

level of 30kCHF a year up to and including 2022. Both countries are requested to report to the committee on their future intentions associated with ISOLDE membership at next meeting.

A discussion takes place about how to establish the Financial Review Board (FRB) for the collaboration that is a requirement of the new CERN General Conditions adopted by the committee at the last ISCC meeting. The CERN general conditions state:

"*5.2 Each Collaboration shall establish procedures for decision-making on financial matters, **including** through a body responsible for **financial review**.*

*5.3 The financial review body shall consist of **one representative of CERN** as the Host Laboratory, **acting as chair**, one representative of each Collaborating Institution or Funding Agency, as the case may be (including CERN, where applicable) and the Resources Coordinator.*

*5.4 The financial review body **shall review**:*

- the financial contributions of each Collaborating Institution;
- the annual budget of the Collaboration;
- the expenses incurred by the Collaboration; and
*- **a record of the ownership of Equipment** (the "Ownership Inventory").*
This review process shall be carried out on an ongoing basis and give rise to an annual report."

The committee decides that clear terms of reference are required for the FRB to ensure that it carries out the necessary independent financial review of the collaboration budget and then reports to the ISCC. The ISCC will retain the right to make the decisions on how the funds are used, as stipulated in its MoU. S. Freeman will prepare a draft of the FRB Terms and Conditions and an example FRB agenda for the ISCC meeting in June. Plans for the FRB need to be finalised within 2022 so that it can meet for the first time in Spring 2023. ISCC members are asked to determine who should be invited to represent their member state on the FRB. It is decided that the FRB members will be recorded in Annex 2, next to the funding body contact persons. The committee expresses the desire that all ISCC members, who do not represent their countries on the FRB, should be allowed to attend the meetings as observers to ensure the ISCC is fully aware of any issues that might arise from the FRB.

ISCC members are asked to revise the lists in Annex 4 of the MoU and consider what updates of the remaining annexes are necessary.

S. Freeman explains that the ISOLDE MoU states that each member country and CERN have an ISCC representative with voting rights. However, the CERN Financial and Administrative Procedures (FAP) Office strongly recommend avoiding a situation where the Resources Coordinator has voting rights as conflicts of interest can arise from mixing responsibilities. At present S. Freeman is both the CERN ISCC representative and the collaboration Resources Coordinator. In order to solve this issue, CERN would like to split these two responsibilities and nominate M. Kowalska as the CERN ISCC representative. The committee agrees that M. Kowalska can attend the June and November meetings as an observer before becoming the ISCC CERN representative in 2023.

7. Scenario planning for beam dumps and 2-GeV – *S. Freeman*

The ISOLDE consolidation, improvements and expansion goals, both mid-term (2022-LS3) and long-term (>LS3) are briefly summarised. The mid-term goals include the new FIRIA (Fire-Induced Radiological Integrated Assessment) project that identified improvements of fire safety measures after analysing potential hazards. This project would include improvements to the ventilation system that could provide major benefits to the operation of the facility. However, funding for the FIRIA project has not yet been identified.

S. Freeman informs the committee that, after several conversations with ATS management, possible ISOLDE improvements were presented and discussed at the "Injectors and Experimental Facilities (IEF) Workshop" in December 2021. As part of the workshop conclusions, the IEF Committee has mandated a study during 2022 so that a decision on the mid-term ISOLDE improvement options, including 2GeV beam transfer line, beam dumps and the FIRIA project, can be made this year. This, in turn, would allow a decision to be taken on whether the chosen improvements should be included in the CERN MTP 2023.

Several scenarios are presented involving the possible outcomes of the decision-making process regarding the BTY line and beam dump upgrades. **The committee stresses that the upgrades of the beam dumps at ISOLDE, as well as 2-GeV proton delivery by the BTY line, are very important to the future of ISOLDE. The collaboration is willing to contribute towards the cost of these projects**, if required, and the committee agrees to earmark the collaboration funds currently available, as described in Section 5 above, for these improvements.

8. News from the ISOLDE group – *S. Freeman*

The committee is informed that the ISOLDE Workshop and Users Meeting, which was held online for the second year running in December 2021 due to Covid-19 restrictions, was a great success with participants from 30 different countries. As in 2020, the number of participants was double that of previous ISOLDE workshops held on site. Hence, whilst everything possible will be done to try to hold the 2022 Workshop at CERN, the flexibility of access should be maintained by using some kind of hybrid meeting to accommodate a similar level of interest.

G. Neyens tells the committee that the last few submissions for the EPIC proceedings, that will be published in European Physical Journal Special Topics, are expected soon and then significant editing of the document will be required. It is hoped that a draft version of the document will be ready for circulation in April before being published this summer.

The present manpower situation in the ISOLDE Physics Group is summarised by S. Freeman:

- Research Fellows: Razvan Lica – IDS (June 2020 – extended to August 2022), Liss Vasquez Rodriquez - COLLAPS (Oct. 2020 – Sept. 2022), Erich Leichensteiner (April 2021 – March 2023), Agi Koszorus – CRIS (October 2021 – Sept. 2023), Zoe Favier -IDS/Miniball (new fellow starting March 2022 – February 2024). Deadline for new applications: noon 1st March 2022.

- Applied Fellows: Markus Vilen – MR-ToF for ISOLDE and MIRACLS (October 2019 to September 2022), Bruno Olaizola – HIE-ISOLDE (September 2020 – August 2022), Frank Brown – MINIBALL (Sept. 2021 – August 2023). Deadline for new applications is the same as for Research Fellows, noon 1st March 2022.

- Scientific Associates: Janne Pakarinen (8 months, December 2021 – July 2022), Alexandre Obertelli (1 year, September 2021 – August 2022 –at AD), Zsolt Podolyak (6 months, February 2022 to July 2022), Georgi Georgiev (6 months, June 2022 to November 2022). Deadline for new applications: noon 1st March 2022.

- Corresponding Associate: None. Deadline for new applications: noon 1st March 2022.

- Doctoral Students: Katarzyna Maria Dziubinska-Kuhn (CERN-ERC Betadrop) (October 2018 to March 2022), Karolina Kulesz (CERN-ERC Betadrop) (October 2018 to February 2022), Lukas Nies (CERN via Gentner Doctoral Program) (November 2019 to October 2022), Franziska Maier (CERN-MIRACLS via Gentner Doctoral Program) (February 2020 – January 2023), Michail Atanasakis (CERN EP-SME) (Sept. 2020 – Aug. 2023), Marcus Jankowski (CERN via Gentner Doctoral Program) (January 2021 to December 2023), Tim Lellinger (CERN via Gentner Doctoral

Program) (March 2021 – February 2024), Mateusz Chojnacki (CERN-ERC Betadrop) (July 2021 – June 2024).

- Staff Members: Stephan Malbrunot-Ettenbauer (February 2017 to January 2022) (ERC MIRACLS, TRIUMF-funded User from March 2022), Karl Johnston (Physics Coordinator) (October 2015 to September 2023), Sean Freeman (Physics Group Leader) (September 2021 to August 2024), Magdalena Kowalska (CERN staff member) (January 2020 -).

- User: Jenny Weterings (User Support) (2002-)

Applications for Fellows are greatly encouraged as a number of the present Fellows at ISOLDE will leave CERN in 2022. As there is lots of competition for Scientific Associate positions, applications for Corresponding Associates are perhaps more likely to succeed. S. Freeman should be informed directly of all applications.

9. News from the ISOLDE coordinator – *K. Johnston*

ISOLDE physics during 2021 is reviewed. Protons were available for physics from 21st June until 15th November; the final experiment schedule for this period is shown. Once protons ended there was a period of winter physics at ISOLDE. However, a huge effort was required from the technical teams after planned weekend CERN power cuts, in order to restart the machines and for the CRIS run to continue. Winter physics in 2022 may depend on when these power cuts (Arrêts d'Urgence Généraux -AUG) are planned this year. The distribution of 2021 beam time between different types of physics is presented. A total of 32 experimental runs took place using 367.5 shifts. A relatively high number of shifts from the coordinator reserve had to be used in 2021 in order to keep physics running.

K. Johnston shows that the present backlog of approved shifts at ISOLDE stands at 1142 with another 149 from 11 proposals to be considered at the upcoming INTC meeting. A high proportion of the backlog is for HIE-ISOLDE, in particular for Miniball, which is more difficult to deal with due to the shorter running period of HIE-ISOLDE.

The draft accelerator schedule for 2022 is presented. Protons will be available for physics at ISOLDE from 28th March until 28th November allowing a longer than usual running period of 245 days. This, however, leads to a shorter period available for any winter physics. K. Johnston explains that there is a high demand throughout the complex so supercycles could be limited at times; discussions are ongoing with the PS/SPS coordinator on how best to balance the request for protons for ISOLDE.

The committee is shown the ISOLDE 2022 commissioning programme and hears that, although the full running period is 245 days, only 131 days will be available with HIE-ISOLDE. This period could be even shorter if the CERN AUG tests are planned for early December as the main limiting factor for the length of the HIE-ISOLDE running period is the required annual warmup of the cryoplant. The committee briefly discusses the need to replace the cryoplant compressor in order to increase the possible running period of HIE-ISOLDE. The cryoplant would normally be considered as part of CERN infrastructure. The cost of a new compressor would be very high; however, the depreciation costs of HIE-ISOLDE not being used for its maximum possible lifetime should also be considered making a new compressor for the cryoplant a very good investment.

[NOTE ADDED AFTER MEETING – Discussions with CERN technical teams after the meeting revealed that annual maintenance of cryogenic infrastructure is not unusual, and it is not a feature of the age of the HIE-ISOLDE cryoplant. The actual issue for HIE-ISOLDE is the lack of cryogenic backup during the maintenance period i.e., a parallel compression system or a viable dewar alternative.]

K. Johnston briefly summarises the beam requests for 2022 that were received before the end of last year. There is a very high demand for shifts this year with 109 experiments requesting over 800 shifts.

With Miniball back at ISOLDE in 2022, the requests for shifts at HIE-ISOLDE make up almost 50% of the total requested whereas HIE-ISOLDE is only available for 50% of the running period.

The committee is told that discussions are ongoing with various groups in order to determine the first few weeks of the physics schedule as Covid infections and delayed delivery of components have affected some groups. However, a draft schedule for the first 10 weeks of the running period should be available soon. As in 2021, due to Covid issues, the first few weeks of the schedule will favour local groups. K. Johnston explains that some supply issues are also affecting target production as a limited number of bases are in stock and have to be shared between physics experiments, development and MEDICIS. However, there is a good stock of used targets for some of the early runs. Production of some "exotic" targets are expected this year for both physics runs and for the transfer of expertise required due to upcoming retirement of E. Barbero.

K. Johnston explains that the ISOLDE schedules have been integrated into the CERN ASM system. However, ASM lives on the technical network which is not accessible from outside CERN, so it is not very useful for ISOLDE users. Hence, for now ISOLDE will continue with its normal all-in-one schedule and weekly planning.

The situation in the ISOLDE hall is briefly summarised. MIRACLS installation at LA2 and in the space vacated by NICOLE is ongoing. In line with the CERN General conditions, the NICOLE collaboration have until 8th February 2022 to claim equipment from the setup otherwise it will either be disposed of or transferred to other interested groups. The space in the hall where this equipment is currently being stored will then be available to be used as "safe" temporary storage space for HIE-ISOLDE experiments. The committee is informed of the plan to construct a mezzanine in the ISOLDE SAS area to be used for storage and that the consolidation proposal for moving power convertors to an extended mezzanine in the hall is being worked on. The latter could allow the reconfiguration of the beamlines at GLM/GHM and ASPIC/Multipacs. New setups that have either already arrived or are due to arrive in 2022 include the new Mossbauer setup, the modified surface science setup and the Multipac magnet. The magnet will initially go to building 275 for testing but where it should be housed long term still has to be established. The modified surface science setup could temporarily be installed at LA2 once MIRACLS is removed but the setup would benefit from a more permanent installation; this issue should be discussed at a future meeting of the ISCC. Space in building 275 has been cleared to allow the preparation of the prototype ROC (Radioactive detection of Optically pumped ions after state selective Charge exchange) setup as well as the assembly of the new CRIS line.

The committee is informed that CERN is currently at Covid Level 4 https://hse.cern/alert-level/general-level-4-red which means anything that can be done off site should be and that users need justification and permission from S. Freeman or K. Johnston to be able to come on site. The wearing of masks and proximeters is mandatory. It is hoped that the CERN restriction level will be lowered as local restrictions change.

The current CERN training requirements for accessing the ISOLDE hall are briefly summarised. The number online courses are ever increasing (see https://isolde.cern/get-access-isolde-facility) and the two hands on courses now comprise of a new 4 hour "Electrical Safety – Working in EP experiments" course followed by the 3.5 hour practical ISOLDE RP course which take place on Tuesdays. These courses are cancelled by the training service if no one is registered 15 days before the scheduled date so users are advised to register early. The availability of the new electrical course has not been very stable, so long-term users are advised to take the course when possible. Short-term users should take all the online electrical training courses, which will allow the ranks for ISOLDE access to be earned, independent of the in-person electrical course. K. Johnston is allowed to give an equivalent course for the RP hands-on course, but this should only be an option in exceptional circumstances as, especially during the running period, this is extremely difficult to manage.

The committee is told that Covid restrictions have led to a backlog for certain CERN training courses such as crane and cryo safety. Hence, attempts are being made to organise ISOLDE specific courses to help the many new local setup representatives get the training they require. Also, a mini-separator course will be organised in March for ISOLDE locals with a training video for all other users being released before the start of the running period.

10. A.O.B.

- The committee thanks V. Fedosseev and E. Barbero, who will both soon be retiring, for their hard work and dedication. S. Freeman will write to them both personally on behalf of the ISCC and the ISOLDE collaboration.

17. Dates of the next meeting

The next ISSC meeting will be held on Tuesday 21st June 2022. If Covid-19 restrictions allow, the meeting will be held on site at CERN.

Meeting ends at 15:15.

N.B. The above presentations can be found via https://indico.cern.ch/event/1121148/ .