4th Assets Maintenance and Management Workshop

Report of Contributions

https://indico.cells.es/e/170

Contribution ID: **3** Type: **not specified**

Opening

Wednesday, 26 September 2018 10:00 (5 minutes)

Presenter: Mr CAMPS, Antoni

Contribution ID: **5** Type: **not specified**

Welcome

Wednesday, 26 September 2018 10:05 (5 minutes)

Presenter: BISCARI, Caterina (ALBA-CELLS)

Contribution ID: **6** Type: **not specified**

Maintenance from the Control Room

Wednesday, 26 September 2018 10:40 (35 minutes)

Presenter: Dr PONT, Montse

Contribution ID: **9** Type: **Oral presentation**

ELI Beamlines - Requirements Control Process (RCP)

Wednesday, 26 September 2018 11:45 (30 minutes)

The ELI research center is designed to install and operate an intense laser system with peak powers of 10 PW and focused intensities up to 1024 W/cm2 offering unique sources of radiation and particle beams.

In accordance with ISO 9000, the Quality is defined as “degree to which a set of inherent characteristics of an object fulfils requirements”, where requirement means “need or expectation that is stated”, e.g. in documented form. To satisfy user needs and in the context of the standardized practice, the quality based on RCP has been established and is maintained. This RCP is basically focused on capturing, documenting and evaluation of requirements for each science-based technology and their verification in line with a technology lifecycle. The mentioned activities are realized at the Teamcenter SW built on systems engineering principles customised for ELI needs. The ELI experience in practical application of RCP and SW solution tailored for operation objectives will be presented.

Primary authors: Mr KUZMENKO, Aleksei (ELI Beamlines, Fyzikální ústav AV ČR, v. v. i.); Mr FEDOSOV, Viktor (ELI Beamlines (Institute of Physics of the Czech Academy of Sciences))

Presenter: Mr KUZMENKO, Aleksei (ELI Beamlines, Fyzikální ústav AV ČR, v. v. i.)

Session Classification: Session 0 - Oral Presentations

Track Classification: Change, quality and risk management

Contribution ID: **12** Type: **Oral presentation**

Managemen at the beamlines support section at ALBA

Thursday, 27 September 2018 16:35 (30 minutes)

ALBA is the Spanish 3-GeV synchrotron radiation facility operated by the Consortium CELLS,
The ALBA experiments division currently operates eight beamlines and other four are being commissioned or constructed.
The Beamlines Support Section inside the experiments division gives support on the mechanical development and maintenance of the beamline's scientific instrumentation mostly in a HV and UHV vacuum environment during the construction and operation phase of beamlines.
All the people on the group share a common workshop, tools and access to a stock of spares and consumables.
Although all the personnel is attached to a particularly beamline some rotations are needed to adapt to particular expertise and to do backups during absences.
The presentation will give an overview on the management strategies used to give the best service possible to our users.

Primary author: Mr FRAGA LOPEZ, Edmundo (ALBA - CELLS)

Presenter: Mr FRAGA LOPEZ, Edmundo (ALBA - CELLS)

Session Classification: Session IV Oral Presentations

Track Classification: Asset and maintenance management strategies

Contribution ID: **13** Type: **Oral presentation**

CEBAF Performance Plan; A Machine Management Strategy

Wednesday, 26 September 2018 12:15 (30 minutes)

Jefferson Lab's Continuous Electron Beam Accelerator Facility (CEBAF) has transitioned to Physics operations after completing commissioning of the 12 GeV upgrade. In many instances, new 12 GeV systems have been integrated into the original CEBAF infrastructure and systems. Reliability of these systems, old and new, have gained attention as CEBAF Operations and Engineering groups learn this "new"machine. A concise, published strategy was developed taking aim at ramping up CEBAF weeks of operation while strategically improving performance. A phased 20 year investment plan, the CEBAF Performance Plan (CPP) draws from all groups at JLab to integrate resources and assets across the lab complex to successfully execute and achieve results. In this presentation, I will summarize and discuss the development of the CEBAF Performance Plan, its execution to date, and challenges faced when implementing a strategy such as the CPP.

Primary author: Mr MICHAUD, Randy (Jefferson Lab)

Presenter: Mr MICHAUD, Randy (Jefferson Lab)

Session Classification: Session 0 - Oral Presentations

Track Classification: Asset and maintenance management tools

Contribution ID: **14** Type: **Oral presentation**

European Spallation Source - a new facility approach on system set up for asset management

Thursday, 27 September 2018 09:30 (30 minutes)

ESS is one of the newer green field facilities in the world and is currently preparing for the maintanance phase. The talk will adress the current status of the overall plan of ESS, the system map currently used at ESS supporting asset management (PLM, ERP, CAD, Etc) and what strategies ESS has chosen in regards to system support and procedures to handle asset maintenance related activities, where we are at and what challenges we face, now and moving forward.

Primary author: Mrs JONSDOTTIR, Karen (ESS ERIC)

Presenter: Mrs JONSDOTTIR, Karen (ESS ERIC)

Session Classification: Session I Oral Presentations

Track Classification: Asset and maintenance management strategies

Contribution ID: **15** Type: **Oral presentation**

Status of Maintenance Policy at Synchrotron SOLEIL

Thursday, 27 September 2018 10:00 (30 minutes)

SOLEIL is a third generation synchrotron light source located near Paris (France) in operation since 2008. The facility is delivering more than 5000 hours of beam to 29 beamlines, for 2000 individual users per year. In this context, SOLEIL must professionalize its maintenance activities to take into account the constraints facing it (need for service, regulatory compliance, human outsourcing,⋯) and also to respond to the challenge of ageing and obsolescence equipment. We will present the status of the maintenance management system and the progress of the actions since AMMW2015, mainly the inventory review of maintenance practices made in many groups and the CMMS improvement. The issues of the set-up of a handling trouble process, the development of single portal and the establishment of criticality matrix will be deepened in dedicated presentations. We will focus on showing the benefits of implementing common methods but also the difficulties for people to accept new work procedures.

Primary author: Mrs ROZELOT, Helene (Synchrotron SOLEIL)

Co-authors: Dr NICOLAS, Christophe (Synchrotron SOLEIL); Mr ROBERT, Emmanuel (Synchrotron SOLEIL); Mr SCHAGUENE, Gilbert (Synchrotron SOLEIL); Mrs ABEILLE, Gwenaelle (Synchrotron SOLEIL); Mr CHABARD, Jules (Synchrotron SOLEIL); Mr MANCIET, Laurent (Synchrotron SOLEIL); Mrs BLANCHANDIN, Stéphanie (Synchrotron SOLEIL); Mr DELETOILLE, Xavier (SYNCHROTRON SOLEIL)

Presenter: Mrs ROZELOT, Helene (Synchrotron SOLEIL)

Session Classification: Session I Oral Presentations

Track Classification: Asset and maintenance management strategies

Contribution ID: **16** Type: **Oral presentation**

Identification Of Critical Beamline Components For Preventive Maintenance Plan At Synchrotron SOLEIL

Friday, 28 September 2018 09:50 (30 minutes)

In the framework of initiating a preventative maintenance plan for SOLEIL beamlines while taking into account of their specificities, criticality matrices on the two different beamlines, PLEIADES and PROXIMA-1, have been established. SOLEIL provides 29 beamlines for 2400 external users per year. Each one of these beamlines has very different ways of operating, which tends to increase the complexity of finding an easy common tool towards a preventive maintenance plan. For instance, the average duration of a beamtime on PROXIMA-1 is a few hours, compared to 5 days on PLEIADES.
We will present the results of an evaluation of the components of the beamlines, represented as criticality matrices. We will show that such matrices can be flexible enough, in their construction, to be applicable to very different beamlines in terms of maintenance, and function as a first start towards a preventive maintenance plan. We will also share how this work has been received within the beamline community.

Primary author: Mr CHABARD, Jules (Sychrotron SOLEIL)

Co-authors: Mr NICOLAS, Christophe (Synchrotron SOLEIL); Mr ROBERT, Emmanuel (Synchrotron SOLEIL); Mrs ROZELOT, Hélène (Synchrotron SOLEIL); Mr BOZEK, John (Synchrotron SOLEIL); Mr CHAVAS, Leonard M.G. (Synchrotron SOLEIL); Mr GOURHANT, Pactrick (Synchrotron SOLEIL); Mr LENER, Robin (Synchrotron SOLEIL)

Presenter: Mr NICOLAS, Christophe (Synchrotron SOLEIL)

Session Classification: Session V Oral Presentations

Track Classification: Change, quality and risk management

Contribution ID: **17** Type: **Oral presentation**

Infor EAM in the Handling Engineering Group at CERN

Thursday, 27 September 2018 16:05 (30 minutes)

The mandate of the Handling Engineering (HE) group is to provide transport and handling services for the technical infrastructure of CERN, accelerators and experiments. This includes the design, the tendering/procurement, the installation, the commissioning, the operation, the maintenance and decommissioning of standard industrial and custom built transport and handling equipment.

This presentation will focus on the Asset and Maintenance Management Strategy within the group by using Infor EAM and EAM Light - an in-house developed "light" application. Different aspects will be presented like Equipment Structure, Meter Readings, Documentation, Work Orders, Spare Parts and Reporting.

Primary author: Mrs HAZELAAR-BAL, Cathelijne (CERN)

Presenter: Mrs HAZELAAR-BAL, Cathelijne (CERN)

Session Classification: Session IV Oral Presentations

Track Classification: Asset and maintenance management tools

Contribution ID: **18** Type: **Oral presentation**

Towards a unique portal for Synchrotron SOLEIL operation processes

Thursday, 27 September 2018 11:15 (30 minutes)

High quality of service is SOLEIL is a key mission since 2007. Operation processes and information systems have been defined mostly on the fly by different teams all along the Synchrotron's journey. Some major outcomes are a limited cross-teams collaboration and a slow learning organization.
Consequently, we are currently implementing a holistic approach with common operational processes and a shared information system. Our first process is "incident management"; an incident is an unplanned disruption or degradation of service. We have tackled incident management for the accelerators since January 2018 and we are planning to extend it to beamlines, early 2019. As a follow-up, we will address the "problem management"process (a problem is the cause of one or more incidents).
This presentation will present the journey we've been through including our results, improvements and difficulties of implementing this new way of working.

Primary author: Mrs ABEILLÉ, Gwenaëlle (Synchrotron SOLEIL)

Co-authors: BUTEAU, Alain (SYNCHROTRON SOLEIL); Mrs ROZELOT, Helene (Synchrotron SOLEIL); Mr LAMARRE, Jean-François (Synchrotron SOLEIL); Dr NADOLSKI, Laurent (Synchrotron SOLEIL); Mr MARION, Thomas (Synchrotron SOLEIL); Mr DELETOILLE, Xavier (SYNCHROTRON SOLEIL)

Presenter: Mrs ABEILLÉ, Gwenaëlle (Synchrotron SOLEIL)

Session Classification: Session II Oral Presentations

Track Classification: Incident management

Contribution ID: **19** Type: **Oral presentation**

CASE MANAGEMENT AS LOGBOOK FOR THE CRYOGENIC INSTALLATIONS AT CERN

Thursday, 27 September 2018 15:15 (30 minutes)

The cryogenics group is well oriented towards Computer Maintenance Management System and in order to improve the documentation for the Operation and Maintenance team, a new logbook application has been developed and implemented.
The logbook is a crucial part of facilities requiring to be operated, maintained or upgraded. The logbook is proof that activities occurred at specific times especially for long-term and multisite operation.
As maintenance interventions and as well as mechanical consolidations are already documented in the CMMS database, it had been decided to integrate the logbook into the same Infor EAM database by using the Case Management Module.
The configuration was tailor made in a simplified EAM Light interface thus obtaining a version adapted to the teams'needs. The new application, as well as feedback for six months operation, will be presented.

Primary author: Ms KNOOPS, Sigrid (CERN)

Co-authors: Mr FERRAND, Frederic (CERN); Mr BONETTI, Nicolas (CERN); Mr GAYET, Philippe (CERN)

Presenter: Ms KNOOPS, Sigrid (CERN)

Session Classification: Session III Oral Presentations

Track Classification: Incident management

Contribution ID: **20** Type: **Oral presentation**

Evolution of the Maintenance Organization & Coordination System at the Alba Synchrotron (2015-2018)

Thursday, 27 September 2018 10:45 (30 minutes)

In our presentation during the last AMMW2015 held at DESY Deutsches Elektronen-Synchrotron, I described the methods and procedures that were established to implement the Coordination of maintenance activities in the Alba synchrotron up to that date. In this AMMW2018 I am going to describe how all these and others methods, procedures and software tools have evolved and created in these last 3 years at Alba in order to improve them. This is what we usually called, a continuous improvement.

Primary author: CAMPS GIMÉNEZ, Antonio

Presenter: CAMPS GIMÉNEZ, Antonio

Session Classification: Session II Oral Presentations

Track Classification: Asset and maintenance management tools

Contribution ID: **21** Type: **Oral presentation**

ALBA Service Portfolio Management Tools

Friday, 28 September 2018 12:00 (30 minutes)

Seeking new solutions to improve the coordination of support and development activities that until little were fragmented in different tools, ALBA has deployed a unique management system that combines state-of-the-art service and project management best practices. Now, 100% of ALBA support groups from Beamline Support, Controls, Electronics, IT, MIS, Health & Safety, Infrastructure, Engineering Transversal, Communication and more, manage their support and development activities in a single, agile service management tool that significantly improves the collaboration between teams and results in an agile service portfolio management.

Primary author: Mrs MARTIN, Malysa (CELLS)

Co-authors: Mrs MARTINEZ BONILLO, ANA BELEN (ALBA Synchrotron); Mr PÉREZ FONT, Antoni (ALBA Synchrotron); COLLDELRAM, Carles (ALBA Synchrotron); SALVAT ITURBIDE, Daniel; FERNÁNDEZ, David; FRAGA, Edmundo (ALBA Synchrotron); CUNÍ SOLER, Guifré; FUENTES RAMÍREZ, Lluïsa; MATILLA, Oscar (ALBA - CELLS)

Presenter: Mrs MARTIN, Malysa (CELLS)

Session Classification: Session VI Oral Presentation

Track Classification: Asset and maintenance management tools

Contribution ID: **22** Type: **Oral presentation**

What is new in Asset and Maintenance Management at CERN

Thursday, 27 September 2018 09:00 (30 minutes)

Following a short introduction to CERN, an overview of the recent advancements and current developments in asset and maintenance management (AMM) usage and tools will be presented. This comprises barcode printing, store kiosk, new radioactive waste management, logbook application, a new version of the light interface and new integrations with CERN's GIS system and the ERP as well as the FLEX building storage management and the open-sourcing of some of the CERN developed applications. (The logbook application will be presented by S. Knoops.)

The presentation will furthermore set forth some of the difficulties that CERN's AMM team needs to tackle, such as

- justifying the need for training and resources for AMM
- justifying the usefulness of maintenance when budget reductions are on the agenda
- finding the right training methods for AMM

An open discussion to gain some input from other organisations on these topics will be welcome.

Primary author: Mr PERINIC, Goran (CERN)

Co-author: Mr JURCSO, Peter (CERN)

Presenters: Mr PERINIC, Goran (CERN); Mr JURCSO, Peter (CERN)

Session Classification: Session I Oral Presentations

Track Classification: Asset and maintenance management strategies

Contribution ID: **23** Type: **not specified**

GENERAL CRYOGENIC MAINTENANCE POLICY AND RECENT UPDATE FOR CERN ASSETS

Thursday, 27 September 2018 14:15 (30 minutes)

Cryogenics system are considered major and critical equipment for the LHC accelerator and its detectors, as interruption of refrigeration capacity has direct impact on physics data taking.
During the 2015-2018 operational phase RUN2, one key element for optimizing reliability was the application of the appropriate Predictive, Preventive and Corrective maintenance policy for highly complex installations, at all stages of their lifecycle.
Lessons learned after the first Long Shut down LS1 in 2013-2014 has allowed to develop, optimise and implement the tools and methods in order to be ready for the second challenge of a major maintenance long shutdown LS2 scheduled in 2019-2020.
This presentation will introduce the feedback of the preventive maintenance tasks carried out on the cryogenics installations during LS1, the availability results achieved during RUN 2, and the evolution of maintenance plans, spare parts strategies and methodologies.

Primary author: Mr BONETTI, Nicolas (CERN)

Co-authors: Mr FERRAND, Frederic (CERN); Mr GAYET, Philippe (CERN); Ms KNOOPS, Sigrid (CERN)

Presenter: Mr BONETTI, Nicolas (CERN)

Session Classification: Session III Oral Presentations

Track Classification: Asset and maintenance management tools

Contribution ID: **24** Type: **not specified**

ALBA Status and Future Plans

Wednesday, 26 September 2018 10:10 (30 minutes)

Presenter: BISCARI, Caterina (ALBA-CELLS)

Contribution ID: **25** Type: **not specified**

Alba Visit

Friday, 28 September 2018 14:15 (1 hour)

Contribution ID: **26** Type: **not specified**

Summary and Farewell

Friday, 28 September 2018 12:30 (15 minutes)

Contribution ID: **27** Type: **Oral presentation**

How to explain positions, parts and assets to dummies?

Friday, 28 September 2018 09:00 (20 minutes)

One of the difficulties of many of our A&MM clients is to understand the differences between the entities that are used in A&MM: Positions, parts and assets.
In this mini presentation you will learn that these difficulties are in some sense strange as we are dealing with positions, parts and assets in our daily life all the time.

Primary author: Mr PERINIC, Goran (CERN)

Presenter: Mr PERINIC, Goran (CERN)

Session Classification: Session V Oral Presentations

Track Classification: Asset and maintenance management strategies

Contribution ID: **28** Type: **not specified**

Maintenance program in the cooling circuit at ALBA. DW case.

Thursday, 27 September 2018 14:45 (30 minutes)

Shutdown periods in ALBA are the best availability window to execute the critical scheduled maintenance joined to the improvements and upgrades of the whole facility. The Computerized Maintenance Management Systems (CMMS) are the tools to coordinate whole year process activities related to maintenance and analyze operation calendar updates and facility upgrades.
Motivation to explore the viability of CBM approach implementation: increase reliability, decrease cost, decrease at minimum not programmed shutdowns, increase predictability to optimize the programmed shutdown activities.
In this presentation we have an overview of the maintenance tool used in ALBA, we will focus on the pumps of the deionized water circuit (cooling circuit), which have suffered a vibration problem that has been high maintenance costs, a study was carried out to discover the fail frequencies of the set slab/pump to later design a new slab to avoid the high maintenance costs had to date and his commissioning.

Primary author: Mr JUAN JOSÉ, Manotas Mazario (Engineering Division - Infraestructure Section)

Presenter: Mr JUAN JOSÉ, Manotas Mazario (Engineering Division - Infraestructure Section)

Session Classification: Session III Oral Presentations

Contribution ID: **29** Type: **Oral presentation**

Maintenance at ALBA facility: Strategy for the conventional services

Thursday, 27 September 2018 11:45 (30 minutes)

This presentation will show an overview of the conventional facilities following the strategy that has been used to achieve the preventive maintenance instead of the corrective. Also, it will try to have a look for the future improvements that has to be done using the CMMS software.

Primary author: Mr IGLESIAS, Jordi (none)

Presenter: Mr IGLESIAS, Jordi (none)

Session Classification: Session II Oral Presentations

Track Classification: Asset and maintenance management strategies

Contribution ID: **30** Type: **Oral presentation**

Maintenance aspects of the ALBA Safety systems

Friday, 28 September 2018 09:20 (30 minutes)

The Health and Safety office of ALBA is the Director's supporting office dealing with the management of the risks present at the facility: from biological, chemical, to the radiological one, and also putting in place an Emergency plan. Several control systems are in place at ALBA to control the exposure levels to the different type of risk, whose requirements and maintenance are stablished and managed by the office technicians.
The aim of this work is first to identify the main risks present at ALBA and to describe which means are in use to allow their control. A detailed presentation will be given afterwards on the maintenance programs currently ongoing for the verification and calibration of the different types of detectors and control systems: periodicity, human and material resources needed, etc. Maintenance related with the systems to control emergency situations will also be analised.

Primary author: Dr GARCIA, Maria Jose (ALBA Synchrotron)

Co-authors: Mr DEVIENNE, Arnaud (CELLS); MÁRMOL MORENO, Carme; MASSA, Cristina; AGUILAR MENA, José; ALCOBENDAS GARCÍA, José Antonio; GARRIDO MATEO, Victor

Presenter: Dr GARCIA, Maria Jose (ALBA Synchrotron)

Session Classification: Session V Oral Presentations

Track Classification: Asset and maintenance management tools

Contribution ID: **31** Type: **Oral presentation**

Adaptation of AM Industry Standards in a Scientific Environment

Thursday, 27 September 2018 17:05 (30 minutes)

The presentation shares experiences of implementing a company-wide asset management approach from scratch. The ISO 5500x standards helped as a starting point and as underlying scheme. The challenges in a scientific institute differ from goals that industrial companies have. Therefore, abstractions and adoptions were needed to make use of industries best practice. The presentation shall give an idea about the journey from the knowledge of an industrial standard to a useful outcome in the scientific sector.

Primary author: Mr FRANK, Alexander (European XFEL)

Presenter: Mr FRANK, Alexander (European XFEL)

Session Classification: Session IV Oral Presentations

Track Classification: Case Studies

Contribution ID: **32** Type: **Oral presentation**

ESA's Technical Directorate Asset Management - Present and Future

Friday, 28 September 2018 11:00 (30 minutes)

The Directorate of Technology, Engineering and Quality (TEC) from the European Space Agency has recently started a process to overhaul the way its different laboratories manage their assets.

The talk will cover a brief overview of the current practices as well as the presentation of the next planned steps towards a more efficient and homogeneous system. The key areas for improvement will be presented as well as the perceived challenges.

Primary authors: Mr COZZANI, Alessandro (European Space Agency); Dr MIQUEL ESPAÑA, Cesar (European Space Agency)

Presenter: Dr MIQUEL ESPAÑA, Cesar (European Space Agency)

Session Classification: Session VI Oral Presentation

Track Classification: Asset and maintenance management strategies

Contribution ID: **34** Type: **Oral presentation**

Property, Plant and Equipment (PPE) register in Infor EAM

Friday, 28 September 2018 11:30 (30 minutes)

CERN maintains an assets register to better respond to the international accounting norm IPSAS 17 on Property Plant and Equipment. This assets register is stored in Infor where a depreciation calculation is available. The advantage to have it stored in Infor is to benefit from the fact that more and more equipment at CERN are registered there for maintenance management.

Primary author: Ms FALCON, JULIE (CERN)

Presenter: Ms FALCON, JULIE (CERN)

Session Classification: Session VI Oral Presentation

Track Classification: Others - Please specify in the comments fields

Contribution ID: **35** Type: **Oral presentation**

Maintenance from the Control Room

Maintenance seen from the Operations Group of Alba

Primary author: Dr PONT, Montse (CELLS-ALBA)

Track Classification: Asset and maintenance management strategies