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Lighting Control System of PEFP

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1. Introduction

In this paper, we described lighting control system for effective management of lighting system according to the size and use of each building of the Proton Accelerator Research Center of PEFP. By introducing lighting control system, it helps work environment enhancement, work efficiency increases and electric power consumption reduction. We also described the organization and function of the lighting control system of PEFP.

2. Lighting Control System Design Status of PEFP

Lighting control system has ability to automatic control of lighting system[1]. It is expected that maintenance, new establishment or extension of facilities are easy. In emergency situations, such as fire and power outage, it controls lighting system for the safety. For the security function, it can control light when camera for CCTV alarms to the CCTV operator. Fig. 1 describes an example of lighting control system.

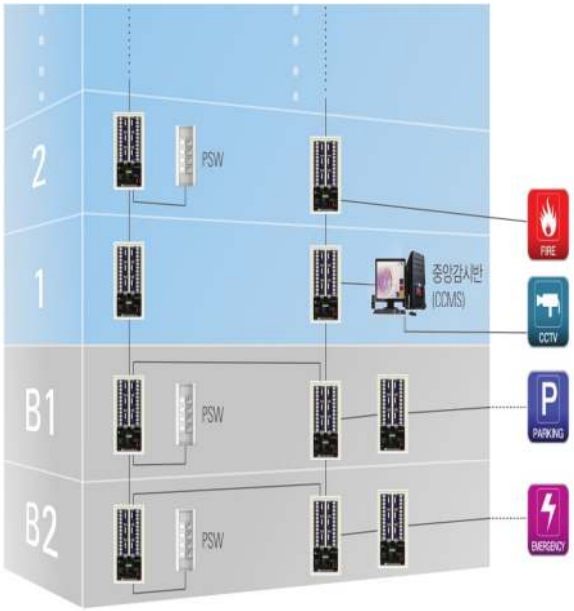

Fig 1. Example of Lighting Control System

2.1 Monitoring System

Main purpose of monitoring system in lighting control system is to observe on/off status of lighting system for effective operation of lighting system. By introducing lighting control system, it can save electricities by turning off the unnecessary lights in office and work areas. Fig. 2 describes monitoring system configuration of light control system

Fig 2. Monitoring System Configuration
of Lighting Control System

2.2 Time Scheduling Control

Time scheduling control of lighting control system automatically turns on and off the lighting switch according to the time schedule of each zone by timer. It is also expected energy savings and effective lighting system management by turning off the lights in work/office area when workers are absent such as weekends and nighttime.

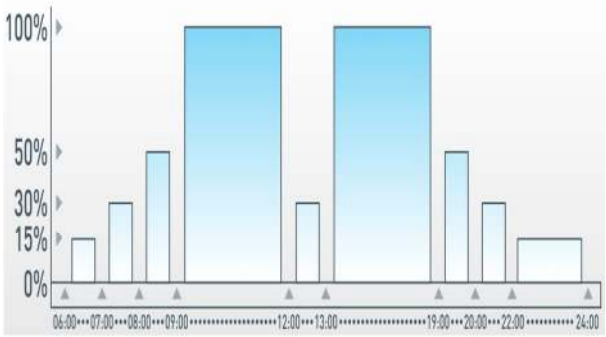

Fig 3. Time schedule example

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2.3 Lighting Control System Diagram of PEFP

In Fig. 4, we described block diagram of lighting control system of PEFP. As shown in Fig.4, lighting system of each zone in each building is connected to the lighting control system to observe and control lighting system.

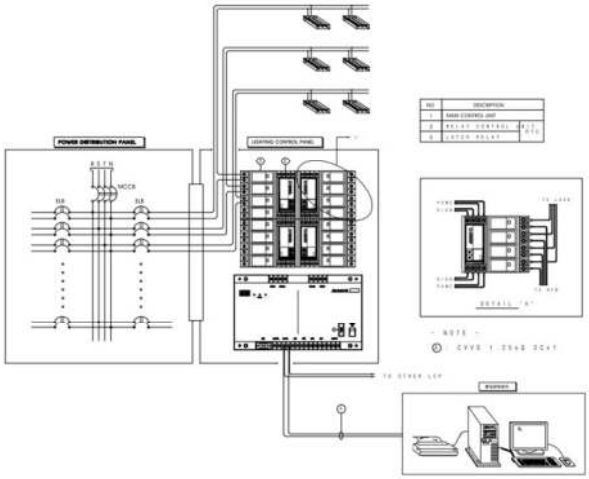

Fig 4. Lighting Control System Block diagram of PEFP

3. Conclusions

In this paper, we described lighting control system of PEFP. It is expected that maintenance, new establishment or extension of facilities are easy. In emergency situations, such as fire and power outage, it controls lighting system for the safety. For the security function, it can control light when camera for CCTV alarms to the CCTV operator.

REFERENCES

[1] “Lighting control System” [joongAng Control, 2012]