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C-A OPERATIONS PROCEDURES MANUAL

1.15 Liquid and Airborne Effluents

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Hand Processed Changes

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Approved: _____ ***Signature on File*** _____
Collider-Accelerator Department Chairman Date

M. Van Essendelft

1.15 Liquid and Airborne Effluents

1. **Purpose**

This procedure is to be followed to ensure that all C-A liquid and airborne effluent sources are identified and managed in accordance with applicable regulatory requirements, and the [Liquid Effluents, Non-radioactive Airborne Emissions, and Radioactive Airborne Emissions SBMS Subject Areas](#).

2. **Responsibilities**

- 2.1 The C-A ESHQ Division Head shall ensure that the Department operates within all conditions specified in [SBMS subject areas pertaining to liquid effluents and airborne emissions](#) and applicable regulatory requirements.
- 2.2 The Environmental Compliance Representative (ECR) shall note potential compliance deficiencies when observed and raise them to the attention of the C-A ESHQ Division Head.
- 2.3 The ECR shall provide expert advice on environmental regulatory compliance questions and propose solutions to compliance problems.
- 2.4 The ECR shall act as a liaison between the C-A Department and the Environmental and Waste Management Services Division.
- 2.5 Operators of equipment which is subject to a New York State Department of Environmental Conservation (NYSDEC) air permit shall maintain logbooks of annual emissions or usage as indicated in the permit.
- 2.6 All C-A personnel shall immediately notify their line supervisor, ESHQ Division Head, or ECR of all possible permit violations or unusual releases of material deleterious to the environment, in accordance with [C-A OPM 10.1](#), "Occurrence Reporting and Processing of Operations Information".

3. **Prerequisites**

None

4. **Precautions**

None

5. Procedures

5.1 Liquid Effluent Modifications

- 5.1.1 The ECR shall evaluate additions to or deletions of effluents, modifications, new discharges, new facilities, or changes in permitted conditions during the early planning stages of changes to operations in accordance with C-A OPM's [9.2.1](#) and [9.3.1](#).
- 5.1.2 The ECR shall review modifications or additions to C-A liquid effluent sources against State Pollutant Discharge Elimination System (SPDES) permit requirements, and advise the Environmental and Waste Management Services Division, and the C-A ESHQ Division Head, accordingly.
- 5.1.3 The Department shall operate within all applicable SPDES permit conditions.
- 5.1.4 Where necessary, the ECR shall request approval to release the news or additional effluent using the SBMS liquid effluent evaluation form.

5.2 Liquid Effluent Evaluation and Monitoring

- 5.2.1 The ECR, in conjunction with the Environmental and Waste Management Services Division Subject Matter Expert, shall evaluate the adequacy of existing monitoring, treatment, and Best Management Practices (BMP) for C-A liquid effluent streams.
- 5.2.2 Once identified, the C-A Department shall correct liquid effluent compliance deficiencies promptly. Notification of the deficiencies should be made in accordance with [C-A OPM 10.1, "Occurrence Reporting and Processing of Operations Information"](#), and document the problem and corrective actions taken.
- 5.2.3 Corrective actions should be identified and documented in accordance with [C-A-OPM 13.3.2, Nonconformance and Corrective and Preventive Action](#), or the applicable SBMS Subject Area (see Section 7, References, which lists several applicable subject areas).

5.3 Disposal of material via sinks or drains.

- 5.3.1 C-A Department personnel shall only dispose of material via sinks or drains according to the Sink-Releasable Chemical List located in the [SBMS Liquid Effluents Subject Area](#).

5.3.2 Approval from the ECR, or Environmental and Waste Management Services Division Subject Matter Expert, is required prior to the disposal of any unknown chemicals or radioisotopes via sink or drains.

5.4 Airborne Effluent Modifications

5.4.1 C-A shall notify the ECR of all additions to or deletion of airborne effluents, modifications, new sources, new facilities, or changes in existing permitted conditions during the early planning stage of projects, in accordance with C-A OPM's [9.2.1](#) and [9.3.1](#).

5.4.2 The ECR shall evaluate the need for air permits for C-A facilities. New sources, and modifications of airborne effluents, shall be evaluated by the Environmental and Waste Management Services Division Subject Matter Expert, for permitting sources, in accordance with state and federal regulations.

5.4.3 For non-radioactive airborne emissions, the ECR shall complete, as applicable, the SBMS Emission Source Modification Form, and/or the NYSDEC Operating Permit Application Permit Application Information Sheet. This shall be forwarded to the Subject Matter expert for evaluation. For Radioactive Airborne emissions, an SBMS NESHAPs Assessment Form shall be completed and forwarded for evaluation by the Subject Matter Expert.

5.4.4 C-A shall operate airborne emission sources within all applicable permit conditions.

5.5 Airborne Effluent Evaluation, Monitoring, and Treatment

5.5.1 The ECR, in conjunction with the Environmental and Waste Management Services Division Subject Matter Expert, shall evaluate the adequacy of existing monitoring controls, and Best Management Practices for C-A airborne effluent streams and shall determine which airborne effluents require additional monitoring.

5.5.2 The ECR, in conjunction with the Environmental and Waste Management Services Division Subject Matter Expert, shall determine which airborne effluents require controls.

5.5.3 C-A shall correct airborne effluent deficiencies promptly. Notification of deficiencies should be in accordance with [C-A-OPM 10.1 "Occurrence Reporting and Processing of Operations Information"](#).

5.5.4 Corrective actions should be identified and documented in accordance with [C-A-OPM 13.3.2, "Nonconformance and Corrective and Preventive"](#)

[Action](#)", or the applicable SBMS Subject Area (see Section 7, References, which lists several applicable subject areas).

6. Documentation

- 6.1 Various air emission logbooks – to be maintained by the operators of equipment, which are governed by a NYSDEC Air Permit. Information to be recorded is indicated in each individual permit.

7. References

- 7.1 [BNL SBMS Liquid and Airbone Emissions Subject Areas.](#)
- 7.2 [BNL SBMS Nonconformance and Corrective and Preventive Action Subject Area.](#)
- 7.3 [BNL SBMS "Critique" Subject Area.](#)
- 7.4 [BNL SBMS "Occurrence Reporting and Processing System" Subject Area.](#)
- 7.5 [BNL SBMS "Radiological Awareness Reports" Subject Area.](#)
- 7.6 [BNL SBMS "Spill Response" Subject Area.](#)
- 7.7 [BNL SBMS "Environmental Assessments" Subject Area.](#)
- 7.8 [C-A-OPM 9.2.1, "Procedure for Reviewing Environmental, Health and Safety Aspects of an Experiment".](#)
- 7.9 [C-A-OPM 9.3.1, "Reviewing Conventional Safety Aspects of an Accelerator System".](#)
- 7.10 [C-A-OPM 10.1, "Occurrence Reporting and Processing of Operations Information".](#)
- 7.11 [C-A-OPM 13.3.2, "Nonconformance and Preventive Action".](#)

8. Attachments

None