Standard Operating Procedure (SOP)

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| Author:  User(s) |  | Date: |  |
| PI/Advisor:  Process Name: |  | SOP# (optional) |  |
| Department:  Lab Number: |  | Phone:  Email: |  |

This SOP should be considered and maintained as a departmental record and used as a training aid for new researchers. As such, the SOP should accurately describe how the subject work is to be conducted safely and effectively with minimal risk to people, property and environment. Periodic review and update is essential, particularly when process or equipment changes are made.

In addition to having read this SOP, all users must be trained to perform this process by an experienced person and must also have completed the Manager’s Orientation Safety Training and subsequent training modules, reviewed the lab Safety Plan and any applicable Safety Data Sheets (SDSs) for associated hazardous materials.

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| **I. Purpose** |
| *Briefly describe the purpose or intent of this work.* |
| **II. Outline of Method** |
| *Describe in some detail the method or technique you plan to perform.* |
| **III. Hazards** |
| Briefly describe the hazards that you should be aware of in the performance of this task, and special precautions that may be needed. |
| **IV. Laboratory Equipment, Materials & Personal Protective Equipment (PPE)** |
| *List any necessary lab equipment, chemicals, etc. needed to perform the task. Be specific as to chemical and equipment names, concentrations, pressures, temperatures, and the like.*  Equipment:  Materials:  Chemicals & Concentrations:  PPE: |
| **V. Emergency Procedures** |
| In the event a piece of equipment/chemical catches fire, there is a spill or unexpected release or there is an accident/fire alarm, list what you should do. Also list the individuals that need to be contacted. |
| **VI. Procedure (a Step-by Step description of the work to be done)** |
| *PROCEDURE: DESCRIBE STEP BY STEP your process as if you were writing a recipe or instruction for a person unfamiliar with the work.* ***More detail*** *is better than less, here. Include set-up, operation, take down, and clean-up steps if applicable. Define how and where (e.g., in the fume hood) materials are transferred from their original containers during the process. Feel free to reference any process drawings or schematics you’ll create for inclusion in* ***Section VI*** *below.* |
| **VII. Waste Handling** |
| Describe how waste streams are handled. Be sure to include which waste streams must be separated. |
| **VIII. Drawings, schematics, sketches, etc.** |
| *Insert a drawing or schematic of the entire process to illustrate all components and connections including gas cylinders, valves, mass flow controllers, pressure relief devices, gauges, sensors, heaters and the like.* |
| **IX. Maintenance, Troubleshooting, etc.** |
| Describe what maintenance may be needed on equipment(s). How often does it need to occur?How are gas tanks changed and who can change them?  *Do not forget to describe what maintenance requires special training, if any, and what must be performed by a certified technician.*  *Describe issues that may occur during the running of the procedure and what may need to be checked.* |
| **X. Authorized Users** |
| *Record acknowledgements that the SOP has been read and understood.*  **Authorized Users:**  I have read this Standard Operating Procedure, understand the contents, have been trained on implementing the contents, and will utilize this procedure without exception.   |  |  |  |  | | --- | --- | --- | --- | | **NAME (print)** | **Signature** | **Date** | **PI Initial** | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |