

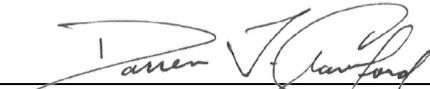
PROTON IMPROVEMENT PLAN II DIVISION PROCEDURE

OPERATIONS

P2DP-OP-0008

PIP2IT SEARCH AND SECURE PROCEDURE

RESPONSIBLE DEPARTMENT: PIP-II Division

PREPARED BY:  DATE: 07/17/2020  
Darren J. Crawford, PIP-II Operations  
Coordinator

REVIEWED BY:  DATE: 07/20/2020  
Eduard Pozdeyev, PIP-II L3 Commissioning  
Manager

APPROVED BY:  DATE: 07/20/2020  
John E. Anderson Jr., PIP-II ES&H  
Manager

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## 1.0 PURPOSE AND SCOPE

The primary objective of the PIP2IT search and secure is to ensure that the PIP2IT enclosure is clear of people before the establishment of beam. The secondary objective of the search and secure is to inspect the safety interlock system to ensure that it is in proper operating condition. No other work can be performed during the search and secure.

## 2.0 RESPONSIBILITIES

It is the responsibility of each PIP2IT operator involved in the search and secure to have the required training credentials for accessing the PIP2IT enclosure. The operator must be controlled access qualified and search and secure qualified. Additional operators may be allowed to participate for search and secure training purposes if under the constant supervision of a qualified search and secure individual.

## 3.0 PREREQUISITES

- 3.1 All enclosure access keys must be in the keytree prior to planning the search and secure.
- 3.2 A minimum of two operators are required to perform the search and secure.
- 3.3 The PIP2IT search and secure map indicates the specific sequence and instructions to be strictly followed by the operators. See Appendix.
- 3.4 Each person performing the search and secure must have an access key for the enclosure.
- 3.5 At least one operator performing the search and secure must have the interlock reset key.

## 4.0 INSTRUCTIONS

- 4.1 The secure team will proceed with the search and secure by carefully looking above, under, behind, in front, and inside any spaces where there might be a person.
- 4.2 At any location where two members of the secure team split up to reset an interlock box or to check an area, one member must hold the secure while the other completes the task. This ensures that no one enters previously secured areas.
- 4.3 The secure team proceeds through the enclosure resetting each interlock box sequentially according to the sequence indicated on the search and secure map.
- 4.4 The search and secure team must verify that all doors lock from the outside, all gates latch, and safety interlocks function. Stop the search and secure notify the PIP-II Operations Coordinator if there is any issue with the safety system interlocks. The Operations Coordinator will notify the ES&H Interlock Group.

- 4.5 ES&H personnel will occasionally place life-sized dummies into the enclosure for the search and secure team to discover. If the secure team finds one or more safety dummies, they should note the location, finish the search and secure, remove the safety dummy from the enclosure, and follow the instructions listed on the attached tag.
- 4.6 Upon completing the search and secure, the secure team must verify that the "Enclosure Interlocked" sign is flashing. If this is not the case, the secure team must notify the PIP-II Operations Coordinator.

#### 5.0 DISTRIBUTION

An electronic copy of this procedure shall be made available through the PIP-II website (<http://pip2.fnal.gov/>) document database and a signed hard copy shall be maintained in the PIP2IT Control Room.

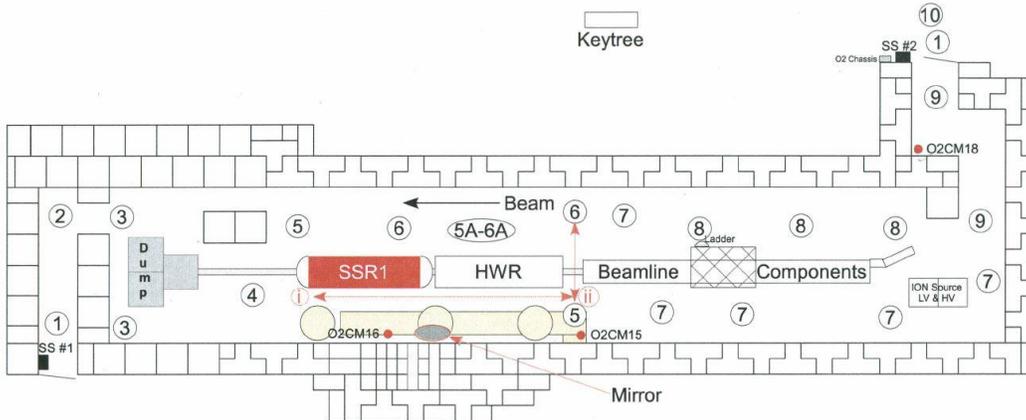
6.0 APPENDIX

6.1 Search and Secure map for PIP2IT enclosure.

**AD PIP-II IT Cave**

Search and Secure Procedure

**PIP-II**  
PIP-II\_V1\_1



0. The keytree is located on the west side of the hallway south of the entrance to the IT Cave
00. Before beginning the Search & Securing of the PIP-II ITCave enclosure, the shield penetrations and roof blocks must be checked. If there are any breaches you must stop and contact the RSO.
1. "A" & "B" enter the cave and proceed to Interlock Box #1, close the gate and reset Interlock Box #1.
2. "A" sweeps the labyrinth to the main area.
3. "A" & "B" split up.
4. "A" goes to (i) and holds.
5. "B" goes to 5A, using the mirror checks behind the Cryo Area, then continues around the Beamline components to (ii) and communicates with "A".
6. While "B" is holding at (ii), "A" checks the West side of the SSR1 stopping at 6A to use the mirror to check behind the Cryo Area then meets up with "B"
7. "A" and "B" sweep both sides of the beamline.
8. "A" uses the ladder to check the platform, then continues sweeping the east side
9. "A" & "B" join up and sweep the labyrinth then exit.
10. "A" & "B" reset Interlock Box #2.

Reviewed Area RSO	Date
<i>[Signature]</i>	3/11/20
Approved AD/OPS Dept. Head	Date
<i>[Signature]</i>	3/12/2020

CONTROLLED DOCUMENT

Users are responsible for ensuring they work to the latest approved revision. Printed or electronically transmitted copies are uncontrolled.

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