



OPENING AND CLOSING OF THE LARGE ROLLING DOOR OF THE PHENIX 1008 SHIELD WALL

procedure name

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1.0 Purpose & Scope

- 1.1 The purpose of this procedure is to provide directions for the movement of The large rolling door that forms the large closure of the PHENIX shield wall in bldg. 1008, the PHENIX Experimental Hall (PEH)

The rolling door weighs approximately 450 tons, and rolls on Hilman rollers on steel tracks, driven by hydraulic cylinders. The door is opened to permit the entry or exit of large components of the PHENIX detector. The operation of the hydraulic system is covered in its own procedure, and is common to several moving operations in the PEH.

2.0 Responsibilities

- 2.1 All operations shall be performed under the direction of the PEH “Person-in-Charge” or his designee.

3.0 Prerequisites

- 3.1 Training: All personnel involved in this procedure shall have reviewed this procedure and the operation of the hydraulic system, including the location of the “Emergency Stop” and the wall-mounted circuit breaker, and be fully knowledgeable about the way in which the door moves on the rails.
- 3.2 The electrically-operated rolling plug door to the north of the large rolling door must be locked open. This plug door is interlocked with the RHIC PASS. The large rolling door is not.
- 3.3 In addition to the hydraulics operator, at least two technicians are to be assigned to conduct this procedure, with their sole focus being on the moving door and rollers.
- 3.4 Assembly Hall rails should be positioned and shimmed to proper height as required. Survey of rail heights or their alignment is not required.

4.0 Precautions

- 4.1 There is a potential for crushing personnel or equipment during this operation. The door moves so slowly that to the casual observer it may appear to be stationary. Therefore, access to the door area must be cleared of non-essential personnel and equipment.

- 4.2 There is a potential of damaging cables and hoses if they are not kept clear of the roller paths on the tracks during movement.
- 4.3 The clearance between the door and its opening is very small (less than 1 inch), and there is the potential of misalignment of the door within its opening, raising the possibility of jamming or interference on one side or the other.

5.0 Procedure

- 5.1 Ensure that the hydraulic cylinders are properly and securely attached and connected.
- 5.2 Ensure that the rails are swept clean of debris and there is nothing in the paths of the rollers.
- 5.3 **Opening the Rolling Door.**
 - 5.3.1 Inspect both sides of the door to ensure there are no attachments that would become damaged or prevent free motion of the door.
 - 5.3.2 Energize the hydraulics to begin opening the rolling door, using the slowest speed (1 inch/min), checking for free motion of all parts of the door.
 - 5.3.3 Once the free motion of the door is ensured, a higher speed (up to 3 inches/min) can be used to complete the door opening.
- 5.4 **Closing the Rolling Door**
 - 5.4.1 Inspect all sides of the door to ensure there are no attachments that would become damaged or prevent free motion of the door.
 - 5.4.2 Energize the hydraulics to begin closing the rolling door.
 - 5.4.3 Stop the door motion just before it enters the door opening and check for alignment and possible interferences.
 - 5.4.4 Resume closing cautiously until the final position is reached.
- 5.5 Shut down and secure the hydraulic system to preclude any unauthorized operation.

6.0 Documentation

NONE

7.0 References

NONE

8.0 Attachments

NONE