ONTARIO POWER GENERATION	APPROVED WORK PROTECTION PROCEDURE	INTERNAL USE ONLY Document Number: NK38-WPM-08400.11-00001-AWPP-109 Revision: R008

Title: USE OF PNEUMATIC VALVE ACTUATOR SPRING FORCE TO PROVIDE ISOLATION

Applicable System/Component: N/A

USAGE CLASSIFICATION:

AWPP

Approved Work Protection Procedure

NK38-WPM-08400.11-00001-AWPP-109-R008

Use of Pneumatic Valve Actuator Spring Force to Provide Isolation

DARLINGTON NUCLEAR

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Revision Summary

Revision Number	Date	Initiator	Comments
R008	2012-06-21	P. Geoffrey	• To ensure clarity arising from SCR D-2012-06692 around AWPP tagging. Ref Section 2.1(f), • N-STD-MA0001 will be superseded by N-PROC-MA-0012 on Aug 30, 2012 and all references were updated at this revision. • Section 5.0 (b) update that the Tags are to be removed using an AWPP PC17A-N
R007	2011-10-06	S. Arnold	Add 0-34220-PV11 to the table
R006	September 2010	C. Hotrum	Addition of TRF 0-39420-MV1619, and 0-39320-MV1341 to App A
R005	05Nov2009	B. Ardiel	• Section 2.1(f) removed incorrect section references to N-STD-MA-0001 • Section 2.1.1 Added warning box • Section 2.6 IA Print and Initial • Section 4.1 Added Appendix A usage and AWPP filing requirements. • Section 4.2 Added new locking requirements. • Updated Table 1 with additional devices for TRF
R004	October 2008	N. Naval	Added valves to Table 1; 0-63425-PV401N3, PV401P3, PV402N3, PV402P3.
R003	October 2008	A. Gaudon	Added valves to Table 1; 0-39330-MV1804.
R002	February 2007	K. Neville	Revised Section 2.1.1 (a).
R001	December 2006	C. Stewart	Added 0-39520-PV57 to Table 1.
R000	February 2005	N. Sheppard	Initial issue. Supersedes NK38-WPM-08400.11-AWPP-015 NK38-WPM-08400.11-AWPP-022 NK38-WPM-08400.11-AWPP-055

1.0 PURPOSE

The purpose of this AWPP is to allow the use of certain approved pneumatic valves as isolators, without requiring them to be mechanically blocked closed. Used in conjunction with guaranteed isolation of their motive force, the spring tension in the actuator will ensure device remains in the closed position.

1.1 Objective

To provide:

(a) A list of all pneumatic valves which have received Engineering approval for use as nonstandard isolating devices without the use of mechanical blocks.

(b) Conditions (if applicable) where they may be used.

(c) When they were approved.

Using this AWPP will:

(a) Control or minimize sources of dynamic energy.

(b) Control charged conditions.

(c) Control the position of devices.

1.2 Supported Procedure(s)

None

1.3 Exceptions

NK38-WPM-08400.11-00001-AWPP-046 and AWPP-063 will not be affected as these remain specific to their application.

2.0 PREREQUISITES

2.1 Preliminary Considerations, Precautions, and Limitations

(a) A means of communications between Control Room and the HOR has been identified and established ..... ❑

(b) Control of isolation points is by the Issuing Authority ..... ❑

(c) All individuals involved in the work activity will be familiar with this procedure before use ..... ❑

(d) The appropriate PV(s) must be check closed and the air supply isolated and de-energized as part of the Work Protection Permit ..... ❑

(e) Prior to use Engineering has confirmed that actuator(s) can produce required seat load ..... ❑

(f) Prepare a separate PC17A-N (AWPP OTO) and list the HSs and PVs used as nonstandard isolation devices from Table 1. Ensure AWPP tags are applied to the HSs and PVs. Attach a copy of the PC17A-N to the associated Work Protection Permit, and maintain the original with the AWPP. (ReferenceN-PROC-MA-0012 , Devices which are not designed to be used for isolation such as relief valves, spring loaded valves, pneumatic valves, non-return valves, etc., are prohibited for use as Guaranteed Devices unless documented in an AWPP, and subjected to Tripartite review, prior to Management approval. Use of mechanical blocks is controlled by N-PROC-MA-0012.)..... ❑

2.1.1 Control of Energy Sources or Isolation Points

WARNING

All Devices manufacture designed lockable, must be locked.

(a) Appropriate PV(s) used for partial isolation must have their HS(s) in the “close” position and AWPP tag hung on the HS(s) and the PV(s) where applicable.

(b) Ensuring the air supply to the applicable PV(s) is guaranteed isolated and de-energized under the associated Work Protection Permit.

(c) Using the actuator spring to provide isolation against system conditions in lieu of mechanical block.

2.1.2 Backout Conditions and Actions

IF AWPP conditions cannot be maintained,
THEN:

(a) Contact Holder(s) of Record/Workers and suspend work.

(b) Inform Issuing Authority.

(c) Determine/rectify cause.

(d) Document via SCR.

(e) Inform Work Protection Coordinator.

2.2 Personnel Required for Procedure Execution

All conditions for establishing and maintaining the AWPP are under the control of the Unit Issuing Authority.

2.3 Qualification Requirements

The Issuing Authority will be level 8.

2.4 Tools and Consumables

None

2.5 Procedures Use

Reference

2.6 Approval for Use

(a) Issuing Authority: Name:_____

(Print/Initial)

3.0 DEVELOPMENTAL REFERENCES

N-PROC-MA-0039, Approved Isolation Procedures, Approved Work Protection Procedures, or Local Instruction Notice Contents and Revisions Control

4.0 INSTRUCTIONS

4.1 Application of AWPP

(a) Main Control Room Panel and all Field Panels are to use approved AWPP tags whenever possible ..... ❑

(b) This AWPP can only be utilized with devices listed in Table 1 ..... ❑

(c) Prefix all devices SCIs with applicable unit designation ..... ❑

(d) Clearly identify the isolated device(s) for this job in Appendix A ..... ❑

(e) A copy of the AWPP is to be kept with the permit ..... ❑

4.2 Establishing AWPP

(a) Formal Work Protection must be in place ..... ❑

(b) ENSURE appropriate PV(s) HS(s) in “close” position ..... ❑

(c) Hang AWPP tags on appropriate PV(s), and HS(s) per AWPP PC17A-N..... ❑

(d) Field check appropriate PV(s) closed ..... ❑

Locking of isolation devices is exempted only as permitted by N-PROC-MA-0012

(e) Complete AWPP Utilization Form (MCR or equal location)..... ❑

5.0 POST-REQUISITE ACTIVITIES

(a) Removal AWPP OTO will be required.

(b) All PV(s) and HS(s) must have the AWPP tags removed and placed in position as directed by Issuing Authority using an AWPP PC17A-N ..... ❑

6.0 DEFINITIONS

None

Appendix A: Pneumatic Valves Approved for Use

Table 1

Device	Assured Position	Specific Conditions/Requirements for Use (If Applicable)	Date	Engineering Approved by:
012-38350-PV1 034-38350-PV1	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
012-38350-PV2 034-38350-PV2	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
012-38350-PV3 034-38350-PV3	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
012-38350-PV4 034-38350-PV4	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
012-38350-PV14 034-38350-PV14	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
012-38350-PV15 034-38350-PV15	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
012-38350-PV16 034-38350-PV16	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
012-38350-PV17 034-38350-PV17	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
1/2/3/4-33410-PV66 1/2/3/4-33410-PV67	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/25	K. Borowiecki
0-63952-PCV2	closed	Air supply isolated and de-energized Actuator produces required seat load	2005/01/31	H. Vogt
0-39520-PV10	closed	Air supply isolated and de-energized Actuator produces required seat load	2005/01/31	H. Vogt
0-39520-PV44	closed	Air supply isolated and de-energized Actuator produces required seat load	2005/01/31	H. Vogt
0-39520-PV48	closed	Air supply isolated and de-energized Actuator produces required seat load	2005/01/31	H. Vogt
0-39520-PV49	closed	Air supply isolated and de-energized Actuator produces required seat load	2005/01/31	H. Vogt
0-63421-PV8 /9/10/11/61/62	closed	Air supply isolated and de-energized Actuator produces required seat load Confirm leak tightness by checking for no suction at PRV100#2.	2004/10/25	K. Borowiecki
1/2/3/4-45000-PV7	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/21	K. Borowiecki
1/2/3/4-45000-PV31	closed	Air supply isolated and de-energized Actuator produces required seat load	2004/10/24	K. Borowiecki
0-39520-PV57	closed	Air supply isolated and de-energized Actuator produces required seat load	2006/12/21	K. Szymanowksi J. Rubin

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Device	Assured Position	Specific Conditions/Requirements for Use (If Applicable)	Date	Engineering Approved by:
0-39330-MV1804	closed	Air supply isolated and de-energized Actuator produces required seat load	2008/10/07	K. Szymanowksi P. Constantin
0-63425-PV401N3, PV401P3, PV402N3, PV402P3	closed	Air supply isolated and de-energized Actuator produces required seat load	2008/10/24	K. Nawar P. Constantin
1/2/3/4-79810-PV181	closed	Air supply isolated and de-energized Actuator produces required seat load NK38-CORR-79810-0332418 P	2010/04/27	Rehan Ikram Francis Tsang
012-79810-PV136	closed	Air supply isolated and de-energized Actuator produces required seat load NK38-CORR-79810-0332418 P	2010/04/27	Rehan Ikram Francis Tsang
0-39420-MV1619	Closed	Air supply isolated and de-energized Actuator produces required seat load NK38-CORR-39420-0336923-P	2010/09/13	J. Downey T. Wong
0-39320-MV1341	Closed	Air supply isolated and de-energized Actuator produces required seat load NK38-CORR-39320-0352952-P	2010/09/13	S. Habibi C. Fong
0-34220-PV11	Closed	Air supply isolated and de-energized Actuator produces required seat load NK38-CORR-00136-0400961-LOF	2011/09/28	Rehan Ikram Rupesh Desai