ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 21

PROCEDURE NO. PT-17.4 REV. NO. 31

CONTROL ROOM RADIATION R-36, R-37, R-38 AND TOXIC GAS MONITOR OPERABILITY TEST

TECHNICAL REVIEW

PORC REVIEW DATE 3-22-95

Thomas A. Marlow
PLANT SUPERINTENDENT

3-22-95
EFFECTIVE DATE

CATEGORY 1.0

REVIEWED BY: _____

THIS PROCEDURE CONTAINS 19 PAGES

GINNA STATION
START:
DATE _____
TIME _____
COMPLETED:
DATE _____
TIME: _____

PT-17.4

CONTROL ROOM RADIATION R-36, R-37, R-38

AND TOXIC GAS MONITOR OPERABILITY TEST

1.0 PURPOSE:

1.1 To describe the steps necessary to verify the operability of the Control Room particulate, Iodine and Noble Gas radiation monitors.

1.2 To describe the steps necessary to verify the operability of the Ammonia and Chlorine detectors.

2.0 TEST REQUIREMENTS:

2.1 Particulate, Iodine and Noble Gas radiation detectors alarm and automatic actions take place as specified.

2.2 Ammonia and Chlorine detectors alarm and automatic actions take place as specified.

2.3 Radiation detector response to installed check source is verified.

2.4 Ammonia and Chlorine detectors respond to span gases.

2.5 Radiation monitor and toxic gas detector flow switches actuate and automatic actions take place as specified.

2.6 Completion of System/Equipment Independent Verification Check.

3.0 REFERENCES:

3.1 Plant Technical Specifications 4.5.2.3.9, 3.5.6 and Table 4.1-1.

3.2 NRC Operation and Maintenance Manual.

3.3 Foxboro Operation and Maintenance Manual.

3.4 Independent Verification Procedure, A-1408.

3.5 Results and Test Acceptance Criteria Basis (ACB) File.

3.5.1 Key: Basis for Limits/Values

V - Vendor
E - Engineering
A - Administrative
C - Code
T - Tech Spec

4.0 INITIAL CONDITIONS:

4.1 Plant in any mode of operation. _____

4.2 Notify Shift Supervisor at start of test. _____

4.3 Notify HCO at start of test. _____

4.4 Notify QC Dept. at start of test. _____

4.5 Test personnel are qualified in accordance with A-1102. _____

4.6 Prior to performing operability test of the chlorine detector, determine which section will be used, and mark the other N/A. _____

4.6.1 Chlorine bottle calibration test gas (Section 6.9). _____

4.6.2 Chlorine mast calibration unit (Section 6.10). _____

NOTE: The Tech. Spec. channel functional test power failure requirement is satisfied during the successful performance of each individual channel, high alarm/trip setpoint check.

4.7 If the setpoint for a radiation detector alarm and/or trip is found to be higher than required, notify Shift Supervisor and take one of the following actions immediately: _____

1) The setpoint shall be immediately corrected without declaring the channel inoperable; or

2) Declare the channel inoperable.

4.8 The individual performing the independent verification shall be a person knowledgeable in the appropriate system involved, normally an Auxiliary Operator or Licensed Operator (active or inactive). _____

4.8.1 The initial realignment steps may be performed at various points throughout the procedure, however, the Independent Verification Check shall be performed upon completion of testing each individual train prior to proceeding to any other train.

4.8.2 Due to the frequent tripping/resetting of the Control Room Ventilation System, the total charcoal run time logged on T-31.10, Attachment 1, shall be from initial trip or time initially placed in the recirc mode, to time of final reset.

4.9 If PPCS is inoperable, N/A steps verifying PPCS response.

5.0 **PRECAUTIONS**:

5.1 Observe normal company safety practices.

5.2 Any deviations from stated limits in this procedure should be noted under comments and a WR/TR initiated when applicable.

5.3 Prior to opening Ammonia or Chlorine bottle, verify regulators are back-seated and bottles piped to detectors.

5.4 Care should be taken when handling Ammonia (≥ 60 ppm) and Chlorine bottles (≥ 3.0 ppm) since these are toxic substances.

6.0 INSTRUCTIONS:

NOTE 1: Sections not to be performed may be marked N/A if not applicable.

NOTE 2: Testing of radiation detectors may cause a spike on one of the LED readouts of the detectors. This is indicated by an illegible reading. The LED must be reset by momentarily interrupting power to that detector (turn power switch inside drawer to "OFF" position, then return to "ON").

NOTE 3: During the performance of this test, R-36, 37 or 38 may go into alarm due to system transient caused by testing. If this occurs, ensure the applicable channel is less than the alarm/warning setpoint, reset by depressing the applicable warning/alarm pushbutton, and reset control room ventilation if necessary.

NOTE 4: Any time monthly surveillance is performed, total charcoal filter fan run time must be a minimum of 15 minutes.

6.1 CHARCOAL FILTER FAN OPERATION:

6.1.1 Verify Control Room HVAC system is in accident mode or place system in "Accident Mode" by depressing Control Room Manual Isolation Pushbutton. _____

6.1.2 Log time that charcoal filter fan starts. _____

Time _____

6.1.3 After 15 minute run time, stop the charcoal filter fan by depressing the Control Room Isolation Reset Pushbutton. _____

6.1.4 Log time that charcoal filter fan stops. _____

Time _____

6.2 List P-9 "ALARM" setpoints in blanks provided.

R-36 [_____ cpm above background] _____
R-37 [_____ cpm] _____
R-38 [_____ cpm above background] _____

6.2.1 List P-9 "WARNING" setpoints in blanks provided.

R-36 [_____ cpm above background] _____
R-37 [_____ cpm] _____
R-38 [_____ cpm above background] _____

6.3 R-36 NOBLE GAS MONITOR

6.3.1 At R-36 monitor drawer, record "as found" Alarm setting.
cpm _____

6.3.2 Set R-36 Alarm setting to the P-9 "ALARM" setpoint.
cpm _____

6.3.3 At R-36 monitor drawer, record "as found" Warning setting.
cpm _____

6.3.4 Set R-36 Warning Setting to the P-9 "WARNING" setpoint.
cpm _____

6.3.5 Press check source and verify the following:

6.3.5.1 Channel digital display indicates greater than "ALARM" setpoint as listed in step 6.3.2.
_____

6.3.5.2 Channel Warning light (orange) illuminates. _____

6.3.5.3 Channel Alarm light (red) illuminates. _____

6.3.5.4 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.3.5.5 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the closed position as indicated by status lights.
_____

6.3.5.6 Charcoal filter fan starts. _____

6.3.5.7 Recirc dampers AKD07 and AKD09 open (in Air Handling Room). _____

6.3.6 Reset Control Room HVAC System when digital display decreases below "ALARM" setpoint and verify the following:

6.3.6.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights.
_____

6.3.6.1.1 Recirc dampers AKD07 and AKD09 close (in Air Handling Room). _____

6.3.6.2 Charcoal filter fan is off. _____

6.3.6.3 MCB annunciator E-11 clears. _____

6.3.7 Independent Verification Check:

6.3.7.1 R-36 Alarm set to step 6.3.2 setting. _____

6.3.7.2 R-36 Warning setting set to step 6.3.4 setting. _____

6.4 R-37 PARTICULATE MONITOR

6.4.1 At R-37 monitor drawer, record "as found" Alarm setting. cpm_____

6.4.2 Set R-37 Alarm setting to the P-9 "ALARM" setpoint. cpm_____

6.4.3 At R-37 monitor drawer, record "as found" "WARNING" setting. cpm_____

6.4.4 Set R-37 "WARNING" setting to the P-9 "WARNING" setpoint. cpm_____

6.4.5 Press check source and verify the following:

6.4.5.1 Channel digital display indicates greater than "ALARM" setpoint as listed in Step 6.4.2. _____

6.4.5.2 Channel Warning light (orange) illuminates. _____

6.4.5.3 Channel Alarm light (red) illuminates. _____

6.4.5.4 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.4.5.5 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.4.5.6 Charcoal filter fan starts. _____

6.4.6 Reset Control Room HVAC System when digital display decreases below "ALARM" setpoint and verify the following:

6.4.6.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.4.6.2 Charcoal filter fan is off. _____

6.4.6.3 MCB annunciator E-11 alarm clears. _____

6.4.7 Independent Verification Check:

6.4.7.1 R-37 Alarm to Step 6.4.2 setting. _____

6.4.7.2 R-37 "WARNING" setting set to Step 6.4.4 setting. _____

6.5 R-38 IODINE MONITOR:

6.5.1 At R-38 monitor drawer, record "as found" Alarm setting. cpm _____

6.5.2 Set R-38 Alarm setting to the P-9 "ALARM" setpoint. cpm _____

6.5.3 At R-38 monitor drawer, record "as found" Warning setting. cpm _____

6.5.4 Set R-38 Warning Setting to the P-9 "WARNING" setpoint. cpm _____

6.5.5 Press check source and verify the following:

6.5.5.1 Channel digital display indicates greater than alarm setpoint as listed in step 6.5.2. _____

6.5.5.2 Channel Warning light (orange) illuminates. _____

6.5.5.3 Channel Alarm light (red) illuminates. _____

6.5.5.4 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.5.5.5 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.5.5.6 Charcoal filter fan starts. _____

6.5.6 Reset Control Room HVAC System when digital display decreases below "ALARM" setpoint and verify the following:

6.5.6.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.5.6.2 Charcoal filter fan is off. _____

6.5.6.3 MCB annunciator E-11 alarm clears. _____

6.5.7 Independent Verification Check:

6.5.7.1 R-38 Alarm set to step 6.5.2 setting. _____

6.5.7.2 R-38 Warning setting set to step 6.5.4 setting. _____

6.6 RADIATION DETECTOR FLOW SWITCH:

6.6.1 Secure the radiation monitor pump. _____

6.6.2 Verify the following:

6.6.2.1 "Low Flow" light lit. _____

6.6.2.2 PPCS Point FHVACD "C.R. HVAC Isolation System Flow" in alarm. _____

6.6.2.3 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.6.2.4 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.6.2.5 Charcoal filter fan starts. _____

6.6.2.6 Restart radiation monitor pump. _____

6.6.2.7 "Low Flow" light extinguished. _____

6.6.2.8 Verify PPCS Point FHVACD "C.R. HVAC Isolation Sys··· Flow" indicates normal. _____

6.6.2.9 Reset Control Room HVAC System when digital display decreases below "ALARM" setpoint and verify the following:

6.6.2.9.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.6.2.9.2 Charcoal filter fan is off. _____

6.6.2.9.3 MCB annunciator E-11 alarm clears. _____

6.7 TOXIC ANALYZER DEFEAT:

6.7.1 Place the low flow trip bypass switch to "BYPASS" position. _____

6.7.2 Secure the running Toxic Gas Analyzer Sample Pump. (Circle pump running A or B.) _____

6.7.3 Verify "LOW FLOW" lights illuminate. _____

6.8 AMMONIA DETECTOR:

6.8.1 Record as found HVAC Ammonia Analyzer value.

_____PPM

6.8.2 Turn the manual three-way valve from "SAMPLE" to the "CALIBRATE" position. _____

6.8.3 Turn the manual three-way valve from "ZERO" to "SPAN" position. _____

6.8.4 Using a bottled gas, adjust the flow on the bottle regulator to slowly increase gas concentration as read on the detector. _____

6.8.5 Record the point at which the Ammonia Alarm lights illuminate and actuate the Control Room ventilation recirc mode.

_____PPM

ACB #	Basis for Limit/Value	ACCEPTANCE CRITERIA:
94-324	A	10 PPM ± 1 PPM

6.8.6 Verify the following when the digital display on the Ammonia detector reaches 10 ppm:

6.8.6.1 MCB Alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.8.6.2 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.8.6.3 Charcoal filter fan starts. _____

6.8.6.4 Shut off Ammonia bottle and bleed pressure off the bottle and regulator. _____

6.8.6.5 Turn the manual three-way valve from "SPAN" to the "ZERO" gas position. _____

6.8.6.6 Turn the manual three way valve from "Calibrate" to Sample. _____

6.8.6.7 Record ammonia detector display when stable. _____PPM

6.8.6.7.1 Verify ammonia detector display is ± 1 PPM from the as found value in Step 6.8.1. If not, perform Step 6.8.6.8 inclusive, to purge the ammonia detector. _____

6.8.6.8 Perform the following to purge the Ammonia detector. N/A Step 6.8.6.8.1 and 6.8.6.8.2 if purge is not required. _____

6.8.6.8.1 Restart the Toxic Gas Monitor pump that was running in step 6.7.2. _____

6.8.6.8.2 When the Ammonia detector digital display indicates a stable value ± 1.0 ppm from the as found value in Step 6.8.1, then secure the running toxic gas monitor pump. _____

6.8.6.9 Reset Control Room HVAC system and verify the following:

6.8.6.9.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.8.6.9.2 Charcoal filter fan is off. _____

6.8.6.9.3 M.C.B. Annunciator E-11 alarm clears. _____

6.8.6.10 Independent Verification Check:

6.8.6.10.1 Manual Three-Way Valve"Sample" Position _____

6.8.6.10.2 Manual Three-Way Valve "Zero" Position _____

6.8.6.11 If test is being performed following calibration and/or maintenance of the Ammonia detector only and is complete, continue on with the Toxic Detector Reinstate section of this procedure, otherwise mark this step N/A.

_____

6.9 CHLORINE DETECTOR - BOTTLE CALIBRATION TEST GAS:

6.9.1 Record as found HVAC chlorine analyzer value.

_____PPM

6.9.2 Turn the manual three-way valve from "SAMPLE" to the "CALIBRATE" position.

_____

6.9.3 Turn the manual three-way valve from "ZERO" to "SPAN" position.

_____

6.9.4 Using a bottled gas, adjust the flow on the bottle regulator to slowly increase gas concentration as read on the detector.

_____

6.9.5 Record the point at which the Chlorine Digital Display actuates the Control Room ventilation recirc mode.

_____PPM

ACB #	Basis for Limit/Value	ACCEPTANCE CRITERIA:
94-325	A	1 PPM ± .20 PPM

6.9.6 Verify the following when the digital display on the Chlorine Detector reaches 1 ppm:

6.9.6.1 MCB Alarm E-11 (Control Room HVAC Isolation) annunciates

_____

6.9.6.2 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.9.6.3 Charcoal filter fan starts. _____

6.9.6.4 Shut off Chlorine bottle and bleed pressure off the bottle and regulator. _____

6.9.6.5 Turn the manual three-way valve from "SPAN" to the "ZERO" gas position. _____

6.9.6.6 Turn the manual three way valve from "Calibrate" to Sample. _____

6.9.6.7 Record chlorine detector display when stable. _____PPM

6.9.6.7.1 Verify chlorine detector display is ± .2 ppm from the as found value in Step 6.9.1. If not, perform Step 6.9.6.8 inclusive to purge the chlorine detector. _____

6.9.6.8 Perform the following to purge the Chlorine detector. N/A step 6.9.6.8.1 and 6.9.6.8.2 if purge is not required. _____

6.9.6.8.1 Restart the Toxic Gas Monitor pump that was running in step 6.7.2. _____

6.9.6.8.2 When the Chlorine detector digital display indicates a stable value ± .2 ppm of the as found value in Step 6.9.1. Then secure the running toxic gas monitor pump. _____

6.9.6.9 Reset Control Room HVAC system and verify the following: _____

6.9.6.9.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.9.6.9.2 Charcoal Filter Fan is off. _____

6.9.6.9.3 M.C.B. Annunciator E-11 Alarm clears. _____

6.9.6.10 Independent Verification Check:

6.9.6.10.1 Manual Three-Way Valve"Sample" Position _____

6.9.6.10.2 Manual Three-Way Valve "Zero" Position _____

6.9.6.11 If test is being performed following calibration and/or maintenance of the chlorine detector only and is complete, continue on with the Toxic Analyzer Reinstate section of this procedure, otherwise mark this step N/A.

_____

6.10 CHLORINE DETECTOR - CHLORINE MAST CALIBRATION UNIT:

6.10.1 Record as found HVAC chlorine analyzer value.

_____PPM

6.10.2 Turn the manual three-way valve from "SAMPLE" to the "CALIBRATE" position.

_____

6.10.3 Turn the manual three-way valve from "ZERO" to "SPAN" position. _____

6.10.4 Connect Mast Calibration Unit to test connection as follows:

6.10.4.1 Close the valves on the lower inlet side and upper outlet side of the chlorine probe flow tube.

_____

6.10.4.2 Remove the Swagelok plugs from both the inlet and outlet test tees. _____

6.10.4.3 Connect the output tubing from the MAST calibration unit to the upper outlet test tee.

NOTE: This is the "backflow" method preferred by ANACON to avoid probe tip saturation.

6.10.5 Pull gas select valve on the Mast Calibration Unit to inject gas. _____

6.10.6 Record the point at which the Chlorine digital display actuates the Control Room ventilation recirc mode. _____

ACB #	Basis for Limit/Value	ACCEPTANCE CRITERIA:
94-325	A	1 PPM ± .20 ppm

6.10.7 Verify the following when the digital display on the Chlorine Detector reaches 1 ppm:

6.10.7.1 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.10.7.2 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights.

_____

6.10.7.3 Charcoal filter fan starts. _____

6.10.8 Remove the MAST calibration unit as follows:

6.10.8.1 Disconnect the MAST calibration Unit from the test tee.

_____

6.10.8.2 Open the lower inlet valve and upper outlet valve of the chlorine probe flow tube.

_____

Verified By: _____

6.10.8.3 Install the Swagelok plugs in <u>both</u> the inlet and outlet test tees.

_____

Verified By: _____

6.10.9 Turn the manual three-way valve from "SPAN" to the "ZERO" gas position.

_____

6.10.10 Turn the manual three-way valve from "CALIBRATE" to "SAMPLE".

_____

6.10.11 Record chlorine detector display when stable.

_____PPM

6.10.11.1 Verify chlorine detector display is ± .2 ppm from the as found value in Step 6.10.1. If not, perform Step 6.10.12 inclusive to purge the chlorine detector.

_____

6.10.12 Perform the following to purge the Chlorine detector. N/A step 6.10.12.1 and 6.10.12.2 if purge is not required.

_____

6.10.12.1 Restart the Toxic Gas Monitor pump that was running in step 6.7.2. _____

6.10.12.2 When the Chlorine detector digital display indicates a stable value ± .2 ppm of the as found value in Step 6.10.1, then secure the running Toxic Gas Monitor Pump. _____

6.10.13 Reset the Control Room HVAC system and verify the following: _____

6.10.13.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.10.13.2 Charcoal filter fan is "OFF". _____

6.10.13.3 MCB annunciator E-11 Alarm clears. _____

6.10.14 Independent Verification Check:

6.10.14.1 Manual Three-way Valve. "SAMPLE" position_____

6.10.14.2 Manual Three-way Valve. "ZERO" position_____

6.10.15 If test is being performed following calibration and/or maintenance of the Chlorine Detector and is complete, continue on with the Toxic Detector Reinstate section of this procedure, otherwise mark this step N/A. _____

6.11 AMMONIA DETECTOR FLOW SWITCH:

6.11.1 Restart the Toxic Gas Monitor Pump that was running in step 6.7.2 (circle A or B to run) _____

6.11.1.1 Place the Toxic Gas Detector Low Flow Bypass Switch in "NORMAL" position. _____

6.11.1.2 Reduce the flow through ammonia detector to < 2.0 SCFM. _____

6.11.2 Verify the following:

6.11.2.1 "Low Flow" light lit. _____

6.11.2.2 PPCS Point FHVACD 'C.R. HVAC Isolation System Flow' in alarm. _____

6.11.2.3 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.11.2.4 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.11.2.5 Charcoal filter fan starts. _____

6.11.2.6 Increase flow to ≥ 2.25 SCFM. _____

6.11.2.7 Verify "Low Flow" light extinguished. _____

6.11.2.8 Verify PPCS Point FHVACD "C.R. HVAC Isolation System Flow" indicates normal. _____

6.11.2.9 Reset Control Room HVAC System. _____

6.11.2.10 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.11.2.11 Charcoal filter fan is off. _____

6.11.2.12 MCB annunciator E-11 alarm clears. _____

6.12 CHLORINE MONITOR FLOW SWITCH:

6.12.1 A or B Gas Monitor Pump Running. (Circle Running) _____

6.12.1.1 Verify and/or place the Toxic Gas Detector Bypass Switch in "NORMAL" position. _____

6.12.1.2 Reduce the flow through the chlorine monitor to <0.25 SCFM. _____

6.12.2 Verify the following:

6.12.2.1 Low flow light lit. _____

6.12.2.2 PPCS Control Room low flow alarm. _____

6.12.2.3 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.12.2.4 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.12.2.5 Charcoal filter fan starts. _____

6.12.2.6 Increase flow to 0.25 SCFM or greater. _____

6.12.2.7 Verify "Low Flow" light extinguished. _____

6.12.2.8 Verify PPCS Point FHVACD "C.R. HVAC Isolation System Flow" indicates normal. _____

6.12.2.9 Reset Control Room HVAC System and verify the following: _____

6.12.2.9.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.12.2.9.2 Charcoal filter fan is off. _____

6.12.2.9.3 MCB annunciator E-11 alarm clears. _____

6.13 CONTROL ROOM MANUAL RECIRCULATION ACTUATION:

6.13.1 Depress the "Control Room Manual Recirculation" pushbutton. _____

6.13.2 Verify the following:

6.13.3 MCB alarm E-11 (Control Room HVAC Isolation) annunciates. _____

6.13.4 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the CLOSED position as indicated by status lights. _____

6.13.5 Charcoal filter fan starts. _____

6.13.6 Reset Control Room HVAC System and verify the following: _____

6.13.6.1 Outside air inlet, exhaust relief and toilet exhaust dampers travel to the OPEN position as indicated by status lights. _____

6.13.6.2 Charcoal filter fan is off. _____

6.13.6.3 MCB annunciator E-11 alarm clears. _____

6.14 TOXIC DETECTOR REINSTATE:

6.14.1 Start or ensure running the sample pump that was secured in step 6.7.2 and verify proper flow rates:

Ammonia ≥ 2.25 scfm _____
Chlorine ≥ 0.25 scfm _____

6.14.2 Verify toxic gas ammonia "Low Flow" light extinguished. _____

6.14.3 Verify toxic gas chlorine "Low Flow" light extinguished. _____

6.14.4 Verify the low flow bypass switch is in "NORMAL" position. _____

6.15 Independent Verification Check:

6.15.1 Verify sample pump on. Mark the pump that is not running N/A.

"A" Running _____

"B" Running _____

6.15.2 Toxic Gas Monitor Low Flow Bypass Switch in the "Normal" Position.

_____

6.16 Log total run time on MCB "Control Room HVAC System Charcoal Filter In-Service Log".

_____

6.17 Notify Head Control Operator that test is complete.

_____

COMMENTS:

COMPLETED BY:_____

DATE COMPLETED:_____

HEAD CONTROL OPERATOR:_____

SHIFT SUPERVISOR:_____

RESULTS AND TEST REVIEW:_____ DATE:_____