

Fourth Quarter 2012 Fire Protection Program Health Report

Program: PGN | Brunswick | FP - Fire Protection / Nuclear Safety Capability Assessment

Period: Q4-2012

75.42 Y

Program Health Report (10/1/2012 - 12/31/2012)

| | | | | |
|---------------------------|--|-------------------------------|-------------------|--|
| Fleet | Fleet | Program Manager | Soffen, Tanya | Overall Status <div style="background-color: yellow; text-align: center; padding: 10px;"> 75.42 Y </div> |
| Facility | Brunswick | Backup Program Manager | Brusselmans, Roel | |
| Program | FP | | | |
| Frequency | | | | |
| PM Complete Status | Complete | Review Status | Complete | |
| Program Desc | Fire Protection / Nuclear Safety Capability Assessment | | | <div style="display: flex; justify-content: space-between;"> <div> R -1.2 MO A -5 MO Y -4 MO Y -3 MO </div> <div> Y +3 MO W +6 MO W +9 MO W +12 MO </div> </div> <div style="display: flex; justify-content: space-between;"> Historic Future </div> |

Scorecard

The current health of the BNP Fire Protection Program is YELLOW for Q4 2012

The trend in the program health is INCREASING.

Additional management attention IS warranted at this time due to staffing challenges for the SSA/SBO roles.

1. Discussion of Yellow/Red Indicators

a. Training and Qualification -- Indocctrination training and Basic Systems training has been completed and focus is now being shifted to NANTels and qualification cards for fire protection. There is still a need for SSA/SBO support, currently management is interviewing candidates. It is imperative that an SSA/SBO is pushed through to the site.

b. Transient combustibles -- 16 TC violations were recorded over the 12 mo rolling period. No combustible issues were recorded for Q4 2012. Majority of violations were from 2012 outage. Those items will not drop out until after next quarter. Indicator will improve through the success of the 2013 outage. Paint is being applied under stairwells in the power block to alert personnel not to store material underneath them. Verbiage has been included in the GET training for contract personnel on the importance of housekeeping and combustibles. Similarly communication has been sent out to Supervisors of the hot work and fire watch personnel to touch on housekeeping more in PJBs.

c. Impairments -- Issues concerning impairments being returned to service within the allotted time frame per procedures. 16 impairments were reported for Q4 2012 with 2 going over the required time to be returned to service. This is an improvement since Q3 2012.

2. Program Managers Concerns

a. Higher levels of support will be needed for NFPA 805 implementation. A balance between work and training is needed for FPPM. Currently contractors and the system engineer are assisting with FPPM workload so focus can be set on getting training completed. There is a need for an SSA/SBO engineer. Indicator will not improve until qualifications and training is completed or a hire is added. Additional SSA contract staffing has been implemented with a new technical lead and project manager.

b. Significant lowering of combustibles since Q3 2012. Trending will be observed with new demarcation lines underneath stairwells in the power block as well as added communication to contractors on the importance of housekeeping.

c. Fire doors still an ongoing issue at BNP. Researching of old CRs has discovered that door impairments have been an issue in the DGB and it is a design flaw. Although it was discovered as being a design flaw back in 1996, no further actions were taken. (Ref CR 96-02096) Maintenance has given support to implement a PM for fire doors on a quarterly basis. Details should be worked out by the end of Q2 2013.

Other -- See Fire Protection System Health Report if more details are desired.

Still experiencing issues with the SAS receiver. Currently it is in Wilmington, NC being serviced. The battery charger EC is in process and has a targeted completion time of April/May.

Reviewed by Alan Holder on 1/10/2013

| | Value | | Weight | Score | Contribution |
|--|---|---|--------|--------------|--------------|
| COMPLIANCE | * | W | | 67.68 | |
| Self-Identified Findings | * | W | 8.33 | 75 | 6.25 |
| External Findings | No external findings within the previous 36 months and no unresolved issues within the previous 24 months.* | G | 8.33 | 100 | 8.33 |
| Triennial Findings | No findings or open items from most recent triennial inspection.* | | 8.34 | 100 | 8.34 |
| EFFECTIVENESS | * | Y | | 50 | |
| Training and Qualification | Program manager not qualified, or training guidelines do not exist. | R | 12.50 | 0 | 0 |
| Self Assessment | Program assessed within the last 24 months and the most recent comprehensive self assessment within the last 36 months. | G | 12.50 | 100 | 12.50 |
| PERFORMANCE | * | Y | | 80 | |
| Frequency of LOCT on Safe Shutdown procedures | Less than or equal to two years and no CRs resulting from LOCT. | G | 10 | 100 | 10 |
| SSD Equipment impairments from periodic/surveillance testing | 0 | G | 10 | 100 | 10 |
| Violations of procedural requirements associated with Transient Combustibles | 16 | R | 5 | 0 | 0 |
| Percentage of Hot Work Permits in which the work is performed in accordance with the FIR-NGGC-0003 | 100 | W | 5 | 100 | 5 |
| Percentage of impairments that are returned to service within the administrative requirements of FPP-013, OPLP-01.2, FPP or FP-012 as applicable | 87.5 | R | 5 | 0 | 0 |
| Percentage of fire brigade drills failures | 0 | G | 5 | 100 | 5 |
| Fire brigade drills objective failures | 0 | G | 5 | 100 | 5 |
| Fire Brigade response times | -1 | G | 5 | 100 | 5 |
| Total Score: | | | | 75.42 | Y |

Expected Green: 5/30/2014

Expected White: 12/31/2012

Indicator: COMPLIANCE**Score:** 67.68 W**Justification:**

New Self-Identified & External Findings criterion is implemented for the 2012 program health report.
2 significance level 2 NCRs were initiated in the Q4 2012 indicating a performance improvement since Q3 2012.

Indicator: Self-Identified Findings**Score:** 75 W**Justification:**

1 S2 CRs were initiated in Q4

576736 DOOR IMPAIRMENTS IN DGB CAUSING RED FP PROGRAM HEALTH

568846 DG BLDG HALON SYSTEM OOS >48 HRS; NEIL NOTIFICATION -- although an S2 CR the system was taken down for work to be done in the DGB Basement. The impairment was not due to equipment malfunction.

Indicator: External Findings**Score:** 100 G**Justification:**

No NRC findings were identified.

Indicator: Triennial Findings**Score:** 100 G**Justification:**

No findings from 11/2011 triennial inspection.

Indicator: Training and Qualification**Score:** 0 R**Justification:**

Contract personnel are still taking majority of work for FPPM. FPPM is currently working towards qualifications in a timely manner. All qualifications will be completed by June 2013, and until then the indicator will continue to be in the red. Backup Program manager is also working towards completing qualifications and is on the same timeline as the FPPM.

SSA/SBO engineer is still vacant, currently relying on contract support. Interviewing process is in the works.

Indicator: Self Assessment**Score:** 100 G**Justification:**

FP Program Self assessment SA # 440002 completed in August 2011.

A self assessment was completed in August 2011 to determine overall program effectiveness. 5 deficiencies and 9 recommendations with respect to improving the fire protection program management were given. Code compliance calcs needed attention as well as staffing needs for the program. Also more focus needs to be given to the training programs involving the fire brigade to ensure proper practices are being followed at all times. The following CRs were initiated:

486464 - Heat collectors used a NFPA 13 code compliance calc justification but are no longer present in the plant. Revision needs to be completed. COMPLETED

486584 - Lack of internal SSD program manager and reliance on contractors needs to be attended to. **We are still trying to fill this vacancy. It is important for support of the NFPA 805 transition.**

486586 - Clear focus and schedules for fire protection issues and deficiencies were not evident. Mainly observed with incipient detection installed but not activated, transformer pit maintenance, code compliance calcs (30/31 not updated in 10 years), and final close out of AR's generated in the 2008 triennial inspection. **Currently code compliance calcs are being revised and reviewed by contract help**

486587 - Plant procedure were not followed during pre drill brief, drill and critique processes, and also had limited supervisor/management oversight of the process. **COMPLETED**

486588 - primary PPE was not being worn by brigade members during drills. **COMPLETED**

Issues are still being worked on as can be seen in the "" above. 3 out of 5 have been completed since the inspection and others have action plans in place.

There are minimal problems with the fire protection program according to the assessment and the program continues to be effectively executed. Manpower is one of the bigger issues currently.

Indicator: EFFECTIVENESS**Score:** 50 Y**Justification:**

Fire Protection Program is still dependent on contract expertise. Hiring has been completed for fire protection program manager, but one position still needs to be filled for a SSA/SBO engineer. As time progresses more training will be completed and the status will improve.

Self assessment and NRC reviews have confirmed a quality program.

Indicator: PERFORMANCE**Score:** 80 Y**Justification:**

Red and yellow indicators are transient combustibles and percentage of impairments returned to service.

Transient combustibles will not be resolved until outage period drops out, and better practices initiated in outage 2013. Verbiage has been include in GET training for transient combustibles. Similarly, more rigorous PJBs will be conducted before hot work to hot work and fire watch personnel.

Indicator: Frequency of LOCT on Safe Shutdown procedures**Score:** 100 G**Justification:**

Review of LOCT schedule found ASSD Review and Walkdowns presented during cycle 2010-5.
Station Blackout & AOP-36.2 training given during cycle 2011-3. Verified current 2 year back bone outline contains ASSD.

Indicator: SSD Equipment impairments from periodic/surveillance testing**Score:** 100 G**Justification:**

ASSD procedures have been validated by walkdown with Operations and project personnel as part of NFPA 805 project activities in 2011 Q3 and Q4. CRs written were resolved.

Indicator: Violations of procedural requirements associated with Transient Combustibles**Score:** 0 R**Justification:**

16 CRs related to transient combustibles, but not hot work:

| | |
|----------------------|---|
| 500910 (Nov-22-2011) | OFPP-014, SECTION 4.1 VIOLATIONS |
| 519344 (Feb-23-2012) | FLAMMABLE PAINT STORAGE W/O FIRE DETECTION SYSTEM |
| 521653 (Mar-05-2012) | Addressed non compliant storage of drums of turbine oil near seal oil skid without containment. |
| 522190 (Mar-06-2012) | U1 RX BLDG COMBUSTIBLE STORAGE UNDER STAIRS |
| 524937 (Mar-19-2012) | Combustibles storage under stairwell, U1 RB. |
| 526685 (Mar-27-2012) | Addressed storage of a laptop computer under a reactor building stairwell. |
| 527398 (Mar-29-2012) | Ladder stored under stairwell. |
| 527750 (Mar-31-2012) | HPCI hoist motor stored in no combustible zone unattended. |
| 527781 (Mar-31-2012) | COMBUSTIBLE MATERIAL STORED UNDER STAIRS |
| 528328 (Apr-03-2012) | NON-COMPLIANCE WITH OFPP-014, 6.2.8.E |
| 541320 (Jun-05-2012) | COMBUSTIBLE MATERIAL STORAGE |
| 547280 (Jun-30-2012) | U1 CABLESPREAD FIRE LOADING EXCEEDED |
| 547912 (Jul-04-2012) | Combustibles under stairwell |
| 549297 (Jul-14-2012) | Combustibles blocking hose station |
| 554807 (Aug-13-2012) | Housekeeping and admin noncompliances |
| 560820 (Sep-9-2012) | Combustibles accumulated in the SW building |

Most of the combustible storage issues were encountered during the outage resulting from an increase in work being done at the BNP facility. More care should be taken to ensure housekeeping is at an excellent standard.

Paint is being applied underneath stairwells in the form of demarcation lines as well as working stating combustible exclusion areas. Tracking combustibles closely to determine if trends are decreasing in impairments. No reports of combustibles in Q4 2012.

Indicator: Percentage of Hot Work Permits in which the work is performed in accordance with the FIR-NGGC-0003**Score:** 100 W**Justification:**

Number of permits for Hot work in Q4 2012 were the following
October - 27
November - 31
December - 21
For a total of 79 hot work permits released.

Zero CRs were initiated on hot work for Q4 2012. An improvement since last quarter.

Indicator: Percentage of impairments that are returned to service within the administrative requirements of FPP-013, OPLP-01.2, FPP or FP-012 as applicable

Score: 0 R

Justification:

The number of impairments against OPLP-01.2 and the FPP program was 16. Out of those 16 impairments, 2 exceeded the time requirements for being out of service. The following CRs were taken out:

567600 - WAREHOUSE B FIRE SUPPRESSION OSS >48 HRS -NEIL NOTIFICATION

568403 - EXPIRING IMPAIRMENT FOR DG BLDG HALON

$100 - (2/16) * 100 = 87.5\%$

Improvement since Q3 2012

Indicator: Percentage of fire brigade drills failures

Score: 100 G

Justification:

There have been no drill failures in the past 12 months.

Indicator: Fire brigade drills objective failures

Score: 100 G

Justification:

There have been no objective failures in the past 12 months.

Indicator: Fire Brigade response times

Score: 100 G

Justification:

Fire Brigade response times are now being recorded properly at BNP. The following data reflects 15 drills over Q3 and Q4 2012.

The average response time from the alarm sounding to the fire out was 22.75 minutes for Q3 2012. The time between the drill initiation and the first mitigating action was 17.5 minutes for Q3 2012.

The average response time from the alarm sounding to the fire out was 22 minutes for Q4 2012. The time between the drill initiation and the first mitigating action was 16 minutes for Q4 2012.

Between the 2 quarters the average response time from alarm to fire out was 22.375 minutes and time between drill initiation and first mitigating action was 16.75 minutes.

Based on procedure, the brigade has a commitment to complete their drills in 25 minutes for ASSD scenarios and 40 minutes for non ASSD scenarios. The Brigade is currently well below that limit, making the program excellent.

Indicator Comments**PERFORMANCE****Frequency of LOCT on Safe Shutdown procedures**

Rouns, Timothy (7/26/2011 6:49:36 PM) - This indicator is redundant to the same indicator in the Appendix R Health Report.

SSD Equipment impairments from periodic/surveillance testing

Rouns, Timothy (10/13/2011 8:59:41 PM) - OTS database will be used for ASSD equipment impairment search beginning 2nd Q 2011. Since the LCOS database has been retired, equipment out of service cannot be easily searched prior to 2011. The rolling 12 month average will begin with the second quarter 2011.

Rouns, Timothy (7/26/2011 6:49:20 PM) - This indicator is redundant to the same indicator in the Appendix R Health Report.

Percentage of Hot Work Permits in which the work is performed in accordance with the FIR-NGGC-0003

Soffen, Tanya (7/12/2012 2:20:40 PM) - 542841 might not relate. If so score would improve to 95.87 increasing the indicator to marginal for the quarter.

Fire brigade drills objective failures

Soffen, Tanya (7/12/2012 12:53:08 PM) - Spoke with Bill Matthias on 7/3. No objective failures were reported for the past 12 months.

Soffen, Tanya (7/16/2012 6:09:27 PM) - A note during one of the fire drills discovered in an NCR that will be addressed to Bill Matthias and Mike White ASAP. One report on AR 541749 Fire Drill Simulated Activity Vulnerability should be brought to attention of the fleets just in case they have similar experiences. On 6/05/2012 during a NOS observation two vulnerabilities were identified. ****COPIED FROM PASSPORT**** 1) The responding non-licensed operator simulated manual closure of the DG building fire dampers over the doors in the fire area (required by the pre-fire plan) This was simulated using a hot stick. Hands-on practice of manual damper closure has not occurred with the non-licensed operators. Manually forcing the dampers closed could lead to binding if not properly performed. 2) The coordination of offsite fire support was simulated during the drill. Both security and the SIC simulated activities to interface with the responding offsite fire resources. In that an actual fire could require multiple offsite fire response vehicles and many responding offsite fire fighters, the coordination of this activity with actual response forces should be practiced more than currently being performed.

Fire Brigade response times

Soffen, Tanya (7/10/2012 9:08:40 AM) - Spoke with Mike White and Bill Matthias to confirm data collection on fire brigade response times. Data will be collected from the next drill on so that BNP can better track the response times of the brigade.

Indicator Automated Data

No Records Returned

Fleet Summary**Executive Summary**

Alan Holder is the Fleet Program Manager.

Overall Fleet Health of the Fire Protection Program for Q4 2012 continued as YELLOW.

As reported, the CR3 program is WHITE while BNP, CR3, HNP and RNP programs are YELLOW.

This is the fourth quarterly report using the combined Fire Protection and Safe Shutdown Program Health Report format along with significant revision to the individual KPIs and plant program performance appears to be appropriately depicted. Additional refinement is anticipated as we move forward into the new Duke Energy organizational structure. BNP and CR3 showed a positive numerical trend to a higher performance color, while HNP and RNP showed a steady state or small numeric decline within the performance color. Additional management attention continues to be recommended in several specific programmatic performance areas.

1. Discussion of Yellow and Red indicators common to multiple sites:

Commonalities in KPI's, categorized as YELLOW or RED, are focused in the areas of;

- 1) External Findings (CR3, HNP)
- 2) Training and Qualifications (BNP, HNP, RNP)
- 3) Violations of procedural requirements associated with Transient Combustibles (BNP, HNP, RNP)
- 4) % impairments that are returned to service within the administrative requirements of FPP-013, OPLP-01.2, FPP or FP-012 as applicable. (BNP, RNP)

Detailed discussion of the YELLOW or RED KPIs is included in the individual site reports.

2. Program Managers' Concerns:

All sites met the reporting due dates for Program Health status for Q4-2012.

Three areas of concern were noted at the fleet level:

-Concern continues focused on acquisition, training and retention of qualified resources for the FP and NSCA Program Manager functional areas. While a number of FP resources have been secured for vacant or expected to be vacant site positions, the qualification time requirement of three years will apply to a number of these. Continued efforts to fill the remaining vacant position and retain currently qualified staff should be a management priority. Open positions are not currently posted for hire in all cases. Individual sites should focus on development and execution of plans to ensure candidates have qualification as a top priority in their work and performance planning.

-Considerable work exists on the road to excellence in the area of Fire Protection / NSCA Programs. This was clearly evident from the HNP INPO FP Excellence Evaluation conducted at HNP in August. This is being addressed through internal self-assessments and peer participation in INPO Evaluations. INPO FP evaluations are scheduled at BNP, MNS and RNP in 2014 and CR3 in 2015.

-Resource impact and demand for backfill support to understaffed sites for emergent and recurring technical support has a substantial potential to impact the fleet capability to meet project schedule and quality requirements. Previously established high performance can be diluted or negated by deferral or distraction to support areas of declining regulatory margin. Additional resource staffing should be continued to support FP and NSCA areas as the needs arise.

3. Summary of proactive actions scheduled to assure long-term program health:

The Fire Protection/NSCA PMs continue to refinement of the KPIs to ensure align the metrics with current industry performance and excellence guidance. This will remain a priority and a subject of discussion during the Fleet Program Peer Team meetings and Bi-Weekly Teleconferences as the organization moves forward with merger activities.

| | Robinson | Brunswick | Crystal River | Harris |
|--|----------|-----------|---------------|---------|
| COMPLIANCE | * W | * W | * Y | * Y |
| Self-Identified Findings | G | * W | Y | W |
| External Findings | Y | * G | R | R |
| Triennial Findings | * W | * G | W | W |
| EFFECTIVENESS | * W | * Y | * G | * W |
| Training and Qualification | Y | R | G | Y |
| Self Assessment | G | G | G | G |
| PERFORMANCE | * Y | * Y | * W | * W |
| Frequency of LOCT on Safe Shutdown procedures | Y | G | G | G |
| SSD Equipment impairments from periodic/surveillance testing | 0 G | 0 G | 0 G | 0 G |
| Violations of procedural requirements associated with Transient Combustibles | 8 Y | 16 R | 1 W | 8 Y |
| Percentage of Hot Work Permits in which the work is performed in accordance with the FIR-NGGC-0003 | 100 W | 100 W | 100 W | 98.73 W |
| Percentage of impairments that are returned to service within the administrative requirements of FPP-013, OPLP-01.2, FPP or FP-012 as applicable | 91 R | 87.50 R | 100 G | 98.20 W |
| Percentage of fire brigade drills failures | 0 G | 0 G | 0 G | 2.94 G |
| Fire brigade drills objective failures | 0 G | 0 G | 0 G | 1.50 G |
| Fire Brigade response times | -3 G | -1 G | -0.81 G | -1 G |
| Total: | 77.09 Y | 75.42 Y | 84.18 W | 76.26 Y |

