

EDO Principal Correspondence Control

FROM: DUE: 04/02/12

EDO CONTROL: G20120149

DOC DT: 03/01/12

FINAL REPLY:

Thomas Saporito
Saprodani Associates

TO:

Borchardt, EDO

FOR SIGNATURE OF :

** GRN **

CRC NO:

Leeds, NRR

DESC:

ROUTING:

2.206 - Palisades Nuclear Power Plant
(EDATS: OEDO-2012-0127)

Borchardt
Weber
Virgilio
Ash
Mamish
OGC/GC
Pederson, RIII
Burns, OGC
Mensah, NRR
Banic, NRR
Russell, NRR
Scott, OGC
Bowman, OEDO

DATE: 03/02/12

ASSIGNED TO:

CONTACT:

NRR

Leeds

SPECIAL INSTRUCTIONS OR REMARKS:

Template: EDO-001

E-RIDS: EDO-01

EDATS

Electronic Document and Action Tracking System

EDATS Number: OEDO-2012-0127

Source: OEDO

General Information

Assigned To: NRR

OEDO Due Date: 4/2/2012 11:00 PM

Other Assignees:

SECY Due Date: NONE

Subject: 2.206 - Palisades Nuclear Power Plant

Description:

CC Routing: RegionIII; OGC; Tanya.Mensah@nrc.gov; Merrilee.Banic@nrc.gov; Andrea.Russell@nrc.gov; Catherine.Scott@nrc.gov

ADAMS Accession Numbers - Incoming: NONE

Response/Package: NONE

Other Information

Cross Reference Number: G20120149

Staff Initiated: NO

Related Task:

Recurring Item: NO

File Routing: EDATS

Agency Lesson Learned: NO

OEDO Monthly Report Item: NO

Process Information

Action Type: 2.206 Review

Priority: Medium

Signature Level: NRR

Sensitivity: None

Urgency: NO

Approval Level: No Approval Required

OEDO Concurrence: NO

OCM Concurrence: NO

OCA Concurrence: NO

Special Instructions:

Document Information

Originator Name: Thomas Saporito

Date of Incoming: 3/1/2012

Originating Organization: Saproani Associates

Document Received by OEDO Date: 3/2/2012

Addressee: R. W. Borchardt, EDO

Date Response Requested by Originator: NONE

Incoming Task Received: Letter

Saprodani Associates

177 US Hwy 1N, Unit 212, Tequesta, Florida 33469
Phone: 1-561-972-8363 Email: saprodani@gmail.com

March 1st, 2012

Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

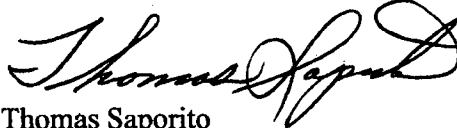
In re: Petition Requesting NRC Enforcement Action be Taken Against the Palisades Nuclear Power Plant Under 10 C.F.R. 2.206

Dear Executive Director:

Please find the enclosed Petition submitted under 10 C.F.R. 2.206 requesting that the U.S. Nuclear Regulatory Commission (NRC) take certain and specific Enforcement Action against the Palisades Nuclear Power Plant to protect public health and safety and the environment.

The undersigned requests that your office process this Enforcement Petition in a timely manner consistent with NRC Management Directive 8.11.

Respectfully submitted,


Thomas Saporito

**UNITED STATES NUCLEAR REGULATORY COMMISSION
BEFORE THE EXECUTIVE DIRECTOR FOR OPERATIONS**

In the Matter of:

**SAPRODANI ASSOCIATES, and
THOMAS SAPORITO**

DATE: 01 MAR 2012

Petitioner,

v.

**ENTERGY NUCLEAR OPERATIONS, INC.
PALISADES NUCLEAR PLANT**

Licensee.

**PETITION UNDER 10 C.F.R. §2.206 SEEKING ENFORCEMENT
ACTION AGAINST ENTERGY NUCLEAR OPERATIONS
AND PALISADES NUCLEAR PLANT**

NOW COMES, SaproDani Associates, by, through and with, Thomas Saporito, Senior Consultant for SaproDani Associates (hereinafter "Petitioner") and submits a "*Petition Under 10 C.F.R. §2.206 Seeking Enforcement Action Against Entergy Nuclear Operations, Inc. and the Palisades Nuclear Plant*" (hereinafter "Petition"). For the reasons stated below, the U.S. Nuclear Regulatory Commission (NRC) should grant the Petition as a matter of law:

NRC HAS JURISDICTION AND AUTHORITY TO GRANT PETITION

The NRC is the government agency charged by the United States Congress to protect public health and safety and the environment related to operation of civilian commercial nuclear reactors in the United States of America (USA). Congress charged the NRC with this grave responsibility in creation of the agency by passing the Energy Reorganization Act of 1974 (ERA). In the instant action, the above-captioned entity is collectively and singularly a "licensee" of the NRC and subject to NRC regulations and authority under 10 C.F.R. §50 and under other NRC regulations and authority in connection with licensed activities at one or more nuclear reactors in the USA. Thus, through Congressional action in creation of the agency; and the fact that the named-actionable party(s) identified above by Petitioner is collectively and singularly a licensee of the NRC, the agency has jurisdiction and authority to grant the Petition.

STANDARD OF REVIEW

A. Criteria for Reviewing Petitions Under 10 C.F.R. §2.206

The staff will review a petition under the requirements of 10 C.F.R. §2.206 if the request meets all of the following criteria:

- ⑩ The petition contains a request for enforcement-related action such as issuing an order modifying, suspending, or revoking a license, issuing a notice of violation, with or without a proposed civil penalty, etc.
- ⑩ The facts that constitute the basis for taking the particular action are specified. The petitioner must provide some element of support beyond the bare assertion. The supporting facts must be credible and sufficient to warrant further inquiry.
- ⑩ There is no NRC proceeding available in which the petitioner is or could be a party and through which petitioner's concerns could be addressed. If there is a proceeding available, for example, if a petitioner raises an issue that he or she has raised or could raise in an ongoing licensing proceeding, the staff will inform the petitioner of the ongoing proceeding and will not treat the request under 10 C.F.R. §2.206.

B. Criteria for Rejecting Petitions Under 10 C.F.R. §2.206

- ⑩ The incoming correspondence does not ask for an enforcement-related action or fails to provide sufficient facts to support the petition but simply alleges wrongdoing, violations of NRC regulations, or existence of safety concerns. The request cannot be simply a general statement of opposition to nuclear power or a general assertion without supporting facts (e.g., the quality assurance at the facility is inadequate). These assertions will be treated as routine correspondence or as allegations that will be referred for appropriate action in accordance with MD 8.8, "Management of Allegations".
- ⑩ The petitioner raises issues that have already been the subject of NRC staff review and evaluation either on that facility, other similar facilities, or on a generic basis, for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question. This would include requests to reconsider or reopen a previous enforcement action (including a decision not to initiate an enforcement action) or a director's decision. These requests will not be treated as a 2.206 petition unless they present significant new information.
- ⑩ The request is to deny a license application or amendment. This type of request should initially be addressed in the context of the relevant licensing action, not under 10 C.F.R. 2.206.
- ⑩ The request addresses deficiencies within existing NRC rules. This type of request should

be addressed as a petition for rulemaking¹.

**REQUEST FOR ENFORCEMENT-RELATED ACTION TO MODIFY,
SUSPEND, OR REVOKE A LICENSE AND ISSUE A NOTICE OF
VIOLATION WITH A PROPOSED CIVIL PENALTY**

A. Request for Enforcement-Related Action

Petitioner respectfully requests that the NRC: (1) take escalated enforcement action against the above-captioned licensee(s) and suspend, or revoke the NRC license(s) granted to the licensee for operation of the licensees' Palisades Nuclear Plant in the USA; (2) that the NRC issue a notice of violation with a proposed civil penalty against the licensee in the total amount of \$1,000,000.00 (One-Million) dollars; and (3) that the NRC issue a Confirmatory Order requiring the licensee (to take certain and specific actions) and to bring the Palisades Nuclear Plant to a "cold-shutdown" mode of operation until such time as:

1. The licensee completes an **"independent"** Safety Culture Assessment (SCA) to more fully understand and correct the "root-cause" of multiple violations of NRC safety regulations and requirements at the Palisades Nuclear Plant²; and
2. The licensee completes a comprehensive training program of all station maintenance personnel (including supervision) to ensure the all licensed activities at the Palisades Nuclear Plant comply with NRC safety regulations and requirements; and
3. The licensee completes a comprehensive training program of all station operations personnel (including supervision) to ensure that all licensed activities at the Palisades Nuclear Plant comply with NRC safety regulations and requirements; and
4. The licensee completes an **"independent"** safety-assessment thorough a 3rd party contractor to review all Palisades Nuclear Plant operation and maintenance procedures to ascertain whether the procedures require **"risk assessment"** by licensed operations personnel prior to execution; and
5. The licensee completes **"destructive"** testing and analysis to determine: (1) the extent of embrittlement of the Palisades Nuclear Plant reactor vessel; and (2) whether the nuclear reactor vessel remains in full compliance with NRC safety regulations and requirements under 10 C.F.R. §50; and under other NRC authority.

1 See, *Volume 8*, Licensee Oversight Programs, Review Process for 10 C.F.R. Petitions, Handbook 8.11 Part III.

2 See, NRC February 14, 2012 – Final Significance Determination of Yellow and White Findings with Assessment Followup and Notice of Violation NRC Inspection Report Nos. 05000255/2011019 and 05000255/2011020 Palisades Nuclear Plant.

B. Facts That Constitute the Basis for Taking the Requested Enforcement-Related Action Requested by Petitioner

On February 14, 2012, the NRC issued the agency's Final Significance Determination of Yellow and White Findings in connection with licensed operations at the Palisades Nuclear Plant. In sum, the NRC cited the licensee with violations of NRC safety regulations and requirements directly related to licensed operations at the Palisades Nuclear Plant.

In October 2010, during Refueling Outage 21, ten breakers were replaced inside electrical panel D11-2, associated with the left train 125-Volt direct current (DC) system.

On September 23, 2011, licensee maintenance personnel completed Work Order (WO) 291123-01 to troubleshoot breaker 72-123 in panel D11-2. Maintenance personnel identified that there was no positive load side voltage (this feeds power to the door MZ-50 indicating lights). Maintenance personnel replaced breaker 72-123 and re-installed cover panels inside panel D11-2. Shortly thereafter at 16:07 hrs., nuclear reactor operators received numerous alarms at the control panel for: (1) generator field forcing/over excitation cycling; (2) red indication lights flickered for the voltage regulator control switch and turbine generator exciter field breaker control alarms; (3) breaker 72-121, main generator voltage regulator control power experienced an intermittent connection during the restoration activities of Panel D11-2; (4) reactor operators experienced a loss of indication for multiple containment isolation valves due to an intermittent loss of power from breaker 72-119; (5) loss of instrument air, etc.

Licensee maintenance personnel began troubleshooting and identified: (1) no voltage on the load side of breaker 72-119; (2) misalignment on breakers 72-119, 72-120, 72-121, and 72-123; (3) a 1/16 inch air-gap between the horizontal positive bus bar and the line side positive connection on breaker 72-119; (4) the positive feed wire to DC panel D11-2 was 2-degrees Fahrenheit hotter than the negative wire; (5) the bus had a slight ground; and (6) each breaker's positive horizontal bus bars were hotter than the negative horizontal bus bars.

During the course of repair activities in breaker panel D11-2, while removing a section of bus bar, the bar rotated and established contact between the positive and negative horizontal bus bars resulting in an electrical fault (short-circuit). At the time of the event, reactor power was at approximately 98.5 percent. At 15:06 hrs. the electrical fault on Panel D11-2 caused the shunt trip breaker 72-01 to open - which de-energized the left train 125-Volt DC, D-10L, and D-10R - which de-energized 120-Volt preferred alternating current (AC) buses Y-10 and Y-30 - and Inverter input breaker 72-37 tripped.

Notably, the loss of two out of four preferred AC buses caused a loss of power to two reactor protection system (RPS) channels - causing RPS breakers 3 and 4 to actuate resulting in a reactor trip - which caused a turbine trip. Safety injection actuation signal (SIAS) occurred due to the loss of 120-Volt preferred AC buses Y-10 and Y-30. Right channel engaged causing high pressure safety injection (HPSI) "A" pump and low pressure safety injection (LPSI) pump to start. The containment high radiation signal caused both trains of control room heating,

ventilation, and air conditions in emergency mode. Containment isolation signal initiated along with the containment high pressure alarm for the left channel (no indication for the right channel). Other numerous safety-related systems and equipment engaged (or failed to engage) as a direct result of the aforementioned electrical fault in Panel D11-2.

On February 14th, 2012, NRC (Region III), issued a Notice of Violation to the Palisades Nuclear Plant, which stated in relevant part, that:

- ⑩ Title 10 of the Code of Federal Regulation....states, in part, that activities affecting quality shall be prescribed by documented instructions, procedures or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings.....
- ⑩ Contrary to the above, on September 25, 2011, the licensee failed to ensure that the work performed on Bus D11-2 ...was prescribed by documented instructions or procedures of a type appropriate to the circumstances and accomplished in accordance with the instructions or procedures....As a result, during the work in the field the positive horizontal bus bar rotated and contacted the negative horizontal bus bar that in turn caused an electric fault, loss of the left train 125-Volt DC safety-related system and loss of both preferred alternating current sources associated with the left train DC system.
- ⑩ 10 CFR Part 50....requires, in part, that design control measures provide for verifying or checking the adequacy of design, such as by the performance of design reviews, by the use of alternate or simplified calculational methods, or by the performance of a suitable testing program.
- ⑩ Contrary to the above, in December 2007, the licensee failed to verify the adequacy of the design. Specifically, the licensee modified the design of the P-7C couplings to change the material from carbon steel to 416 stainless steel. The licensee failed to verify that the material was adequate for the environment and working conditions for which it would be subjected. As a result, the licensee failed to identify and evaluate a new failure mechanism which was introduced into the system in the form of intergranular stress corrosion cracking (IGSCC).

The NRC's Notice of Violation issued on February 14th, 2012, does not adequately serve to protect public health and safety in these circumstances where there apparently exists a pervasive and problematic Safety Conscience Work Environment (SCWE) at the Palisades Nuclear Plant. Notably, NRC policy requires that:

- ⑩ The Safety Culture Policy Statement defines nuclear safety culture as the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment. The Safety Culture Policy Statement, including the

definition and traits of a positive safety culture, provides the NRC's expectation that individuals and organizations performing regulated activities establish and maintain a positive safety culture commensurate with the safety and security significance of their activities and the nature and complexity of their organizations and functions.

See, <http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html>

Incredibly, licensed operations and maintenance activities leading up to the nuclear reactor trip (caused by an electrical fault) – could have been prevented had the licensee simply followed the station's procedures and work controls and provided proper supervisory oversight during the repair activities for Panel D11-2 and for the unauthorized plant material modification in connection with 416 stainless steel used in the P-7C couplers – as required by the NRC operational license issued to the Palisades Nuclear Plant. Notably, (with respect to the D11-2 panel electrical fault) the licensee's Plant impact statement, approved on September 22, 2011 by an on-duty Senior Reactor Operator³ (SRO), recognized a potential risk in the loss of ED-11-2 and recommended a contingency review of ONP 2.3, "Loss of DC Power" which provides instructions for operators in the event of loss of DC power. Though the SRO recognized a potential risk, **the EOOS risk assessment model was not run for the loss of the ED 11-2 bus.** Notably, (EOOS shows loss or removal from service of ED-11-2 results in an Orange (high) nuclear safety risk factor of 5.8 requiring GMPO approval for entry.) *Id.*

During emergency actions taken by licensee operations personnel, reactor operators encountered additional complications that included: a rising containment sump level with an increasing, unidentified primary coolant system (PCS) leak rate of less than 10 gallons per minute (gpm), that was later determined to be from the actuation of a chemical and volume control system relief valve in containment; increasing PCS level in the pressurizer that reached a maximum of 98 percent **(the PCS was approximately 9 minutes from being placed in a solid condition)**; increasing steam generator (SG) 'A' level, which reached approximately 98 percent; and, the actuation of suction and discharge pressure relief valves for the charging pumps, which displaced volume control tank water into the charging pump cubicles located in the auxiliary building⁴. (Emphasis added).

During a recent NRC hosted public meeting held on February 29th, 2012, in South Haven, Michigan - the NRC admitted and/or acknowledged that the reactor vessel at the Palisades Nuclear Plant was one of the most brittle nuclear reactor vessels in the USA.

C. There Is No NRC Proceeding Available in Which the Petitioner is or Could be a Party and Through Which Petitioner's Concerns Could be Addressed

Petitioner avers here that: (1) there is no NRC proceeding available in which the

³ *See*, Entergy Operations – Palisades Plant – October 17, 2011 Root Cause Evaluation Report as Revised on December 27, 2011 at p.5.

⁴ *See*, November 29, 2011 – NRC EA-11-243 – NRC Special Inspection Team Report at

Petitioner is or could be a party and through which Petitioner's concerns could be addressed; (2) NRC enforcement actions taken against the licensee as described above are not adequate to protect public health and safety in these circumstances because they fail to resolve or to address a "problematic" SCWE at the Palisades Nuclear Plant which can and will result in further violations of NRC safety regulations and requirements under 10 C.F.R. 50 by the licensee – which can and will endanger public health and safety; and (3) the nuclear reactor vessel at the Palisades Nuclear Plant is the **most brittle nuclear reactor in the USA** – and is believed to be have sustained embrittlement beyond and outside NRC safety regulations and requirements under 10 C.F.R. §50 and under other NRC authority.

CONCLUSION

FOR ALL THE ABOVE STATED REASONS, and because Petitioner has amply satisfied all the requirements under 10 C.F.R. §2.206 for consideration of the Petition by the NRC Petition Review Board (PRB), the NRC should grant Petitioner's requests made in the instant Petition as a matter of law.

Respectfully submitted,



Thomas Saporito, Senior Consultant
Saprodani Associates
177 US HWY 1N, UNIT 212
Tequesta, Florida 33469
Voice: (561) 972-8363

CERTIFICATE OF SERVICE

I HEREBY CERTIFY, that on this 1st day of March 2012, a copy of foregoing document was provided to those identified below by means shown:

Hon. William Borchardt
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
{Sent via U.S. Mail and electronic mail}

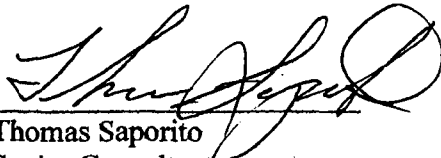
Hon. Gregory B. Jaczko, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
{Sent via electronic mail}

Diana Betancourt
U.S. Nuclear Regulatory Commission
Region III Headquarters
Lisle, IL 60532
{Sent via electronic mail}

Oscar DeMiranda
Senior Allegations Coordinator
U.S. Nuclear Regulatory Commission
Region II Headquarters
Atlanta, Georgia 30303
{Sent via electronic mail}

Local and National Media Sources

By: _____


Thomas Saporito
Senior Consultant

Jaegers, Cathy

From: Champ, Billie on behalf of NRCExecSec Resource
Sent: Friday, March 02, 2012 10:39 AM
To: Jaegers, Cathy; Boyer, Rachel; Wallace, Denise
Subject: FW: Resend - Palisades Nuclear Plant - Enforcement Petition
Attachments: 2012.03.01 Petition 2.206 (Palisades).pdf

From: saporito3@gmail.com [<mailto:saporito3@gmail.com>] **On Behalf Of** Saprodani Associates
Sent: Thursday, March 01, 2012 11:11 AM
To: NRCExecSec Resource
Cc: Jaczko, Gregory; DeMiranda, Oscar; Betancourt, Diana; saporito3@gmail.com
Subject: Resend - Palisades Nuclear Plant - Enforcement Petition

Dear. Ms. Cook:

It appears that page #2 of the Enforcement Petition submitted to the NRC earlier this date under 10 C.F.R. 2.206 in connection with licensed operations at the Palisades Nuclear Plant - was inadvertently not included in the submittal.

Please find another copy of the Enforcement Petition attached hereto which includes page #2. It is hereby requested that this document replace the prior Enforcement Petition submitted to the NRC in this important matter.

Should you have any questions regarding this matter, please do not hesitate to contact me at your convenience.

Kind regards,
Thomas

Thomas Saporito
Senior Consultant
Saprodani Associates
177 US HWY 1 Unit 212
Tequesta, Florida 33469
Web: www.saprodani.com
Phone: 1-561-972-8363
Skype: saporito3
Advocate of Greenpeace USA