

Vermont State Nuclear Advisory Panel

Annual Report

2012

DRAFT October 3, 2013

Department of Public Service
112 State Street
Montpelier, Vermont 05620-2601

EXECUTIVE SUMMARY

The Vermont State Nuclear Advisory Panel (VSNAP) is established by and functions in accordance with the Vermont Statutes Annotated (VSA), Title 18, Chapter 34, Sections 1700-1702. The Panel is composed of 7 members; 2 members of the public, a state senator, a state representative, a designee of the secretary of the agency of human services, a designee of the agency of natural resources, and the commissioner of the department of public service who also serves as chair of the panel.

The purpose of the VSNAP is primarily to review issues and activities associated with the operation of the Entergy Nuclear Vermont Yankee nuclear power station located in Vernon and to advise the governor, the general assembly, and the agencies of the state accordingly.

In the year 2012, the VSNAP Panel held four meetings. The meeting covered a wide range of topics that included Vermont Yankee's response to the Nuclear Regulatory Commission orders to nuclear power stations as a result of the Fukushima accident in Japan, the Federal Emergency Management Agency's role with regard to emergency planning and response at the Vermont Yankee station, the responsibilities of the Red Cross regarding radiological emergency response planning, ANR's response to the Nuclear Regulatory Commission regarding a reevaluation of the seismic analysis at the Vermont Yankee station, a review of the National Pollutant Discharge Elimination System (NPDES) permitting process by ANR, and other topics relating to the operation of Vermont Yankee.

In 2012, the meetings of the VSNAP focused largely on Emergency Planning Issues, and it was recognized by the Panel, as well as by the members of the public, the value of having representatives of Homeland Security Emergency Management (HSEM) present at the VSNAP meetings to engage in constructive discussion on emergency planning and response issues pertaining to the Vermont Yankee nuclear station. The VSNAP panel had considerable discussion whether it would be appropriate and of value to recommend to the Legislature and Governor the amendment of the VSNAP statute to add the commissioner of HSEM as a member of the VSNAP. The Panel could not reach a consensus on this recommendation, but recommends that the Legislature explore the addition of the director of the division of HSEM to VSNAP. The Panel did however agree to request that the commissioner of HSEM or his designee attend all meetings of the VSNAP.

INTRODUCTION

The Vermont State Nuclear Advisory Panel (VSNAP) is established by and functions in accordance with the Vermont Statutes Annotated (VSA), Title 18, Chapter 34, Sections 1700 -1702, provided as Attachment 1. Its primary function is to consider issues related to the use of nuclear power in the State of Vermont. Issues for consideration include, but are not limited to, responsibilities of state agencies for assuring the safety and health of the public, changes in operation and problems associated with nuclear facilities, state-federal regulatory interface, potential liabilities, benefits or repercussions of nuclear power generation in the state.

Membership of VSNAP consists of 1) the secretary of the agency of human services, or designee, 2) the secretary of the agency of natural resources, or designee, 3) the commissioner of the department of public service or designee, 4) a member of the Vermont House of Representatives chosen by the Speaker of the House, 5) a member of the Vermont Senate chosen by the committee on committees, and 6) two members of the public selected by the Governor. In 2012 VSNAP representation consisted of:

- Commissioner Elizabeth Miller, Chair
- Larry Becker, State Geologist, Designee for Secretary Deb Markowitz
- Dr, William E. Irwin, Radiological Health Chief, Designee for Secretary Doug Racine
- Senator Mark MacDonald
- Representative Sarah Edwards
- Jim Matteau, Member of the Public
- Dr. Leslie Kanat, Member of the Public

After the 2012 Vermont Legislative session, Representative Sarah Edwards informed the VSNAP that she is leaving the House of Representatives and would not be able to participate in VSNAP meetings for the remainder of the year. Commissioner Elizabeth Miller left the Department of Public Service in January 2013 and Christopher Recchia was appointed as Commissioner by Governor Shumlin.

Staff Services for the VSNAP were provided by the Department of Public Services.

Responsibilities of State Agencies for Public Health and Safety

The VSNAP statute provides as one of the duties to "define the responsibilities of state agencies for assuring the safety and health of the public as the result of the operation of a fixed nuclear facility and to assess the ability of state and local governments to meet this responsibility in terms of both technical expertise and financial support." There are primarily four state agencies/departments that have significant responsibilities regulating or overseeing the Vermont Yankee nuclear station. They are the Department of Public

Service, the Department of Health, the Agency of Natural Resources, and the Division of Homeland Security and Emergency Management in the Department of Public Safety. Below, follows a summary of the agencies authority and activities to assure the safety of the public and protection of the environment.

Public Service Department

The Department of Public Service (Department) has statutory authority to assess operations at the Vermont Yankee Nuclear Station site and has regulatory authority with regard to the transmission of electric power in Vermont. 30 V.S.A. § 203 states:

The public service board and the department of public service shall have jurisdiction over the following described companies within the state, their directors, receivers, trustees, lessees or other persons or companies owning or operating such companies and of all plants, lines, exchanges and equipment of such companies used in or about the business carried on by them in this state as covered and included herein. Such jurisdiction shall be exercised by the board and the department so far as may be necessary to enable them to perform the duties and exercise the powers conferred upon them by law. The board and the department may, when they deem the public good requires, examine the plants, equipment, lines, exchanges, stations and property of the companies subject to their jurisdiction under this chapter.

(1) A company engaged in the manufacture, transmission, distribution or sale of gas or electricity directly to the public or to be used ultimately by the public for lighting, heating or power and so far as relates to their use or occupancy of the public highways;

(2) That part of the business of a company which consists of the manufacture, transmission, distribution or sale of gas, or electricity directly to the public or to be used ultimately by the public for lighting, heating or power and so far as relates to their use or occupancy of the public highways;

Entergy Nuclear Vermont Yankee (ENVY) is such a company. This statute and the fact that ENVY/Entergy Nuclear Operations (ENO) has a Certificate of Public Good to do business in Vermont, gives the Department a firm jurisdictional hold over the company and its facility.

The Commissioner of the Department of Public Service is also designated by the Governor as the State Liaison Officer to the U.S. Nuclear Regulatory Commission (NRC)

as the primary communication between the State of Vermont and the NRC. “The State Liaison Officer (SLO) serves as the key person in the State to keep the Governor informed on issues under the jurisdiction of NRC including nuclear regulatory, security, and radiological public health and safety matters, and to provide NRC with State information on particular nuclear safety, security, or environmental issues”.

In addition, to the Department’s statutory authority and designation as the SLO to the NRC, the Department has a Memorandum of Understanding with Entergy Nuclear Vermont Yankee providing cooperation, notification and access to the Vermont Nuclear Station.¹

Department of Health

The Department of Health conducts environmental radiation surveillance and has the primary responsibility to advise the Governor on actions to protect the public and the environment with regard to emergency response at a nuclear station. Specifically, the Department of Health assures the safety and health of the public by conducting the activities as follows:

1. The Vermont Department of Health (VDH) has a comprehensive set of regulations to protect public health from releases into the environment from the Vermont Yankee Nuclear Power Station (VYNPS).
2. The VDH conducts extensive monitoring of the environment around VYNPS to measure potential impacts on public health and verify compliance to its regulations. Annual reports of the surveillance are provided to the public via the Department’s website on VYNPS.
 - a. Samples are analyzed at the VDH Laboratory or its contracted laboratories on a timely basis to identify possible releases and possible impacts on public health.
 - b. Drinking water, surface water, air, soil, sediments, vegetation and food is sampled.
 - c. 71 dosimeters are located around the site boundary and in the towns around VYNPS to measure direct gamma radiation from plant operations.
 - d. 4,168 tests from 181 unique sampling sites were conducted in 2012.
 - e. The 2012 environmental surveillance report found no impacts on the environment that would lead to a dose consequence exceeding Health Department regulations.
3. A delegate for the Commissioner of Health maintains rights of unescorted site access and periodically visits the VYNPS to observe plant operations for their potential impact on public health and to obtain environmental samples.
4. VDH scientists regularly exercise their skills to interpret plant conditions, the weather and other circumstances to estimate potential public radiation dose and

¹ Memorandum of Understanding on Cooperation, Notification and Access Between Entergy Nuclear Vermont Yankee LLC and Vermont Department of Public Service for the Vermont Nuclear Power Station dated July 30, 2002.

- other consequences of releases from the VYNPS so protective actions can be taken to prevent or mitigate radiation dose and other consequences.
5. VDH obtains and maintains field and laboratory instrumentation sufficient to conduct routine environmental surveillance and to respond to any radioactive release from the VYNPS.
 6. VDH maintains current the training and qualifications of its staff as needed for VYNPS environmental surveillance and emergency response.
 7. VDH staff train and exercise personnel for radiological emergency response and recovery, including:
 - a. The Vermont Hazardous Materials Response Team, the state's lead radiological first responders;
 - b. The Radiological Sampling Team, comprised of VDH, Department of Environmental Conservation, Department of Labor and Agency of Agriculture, Food and Markets staff, which serves as the state's lead food supply radiological surveillance team;
 - c. Radiological emergency workers from local communities who staff the Bellows Falls Union High School Reception Center;
 - d. Springfield Fire Department staff who provide for Emergency Worker Radiological Monitoring and Decontamination.
 - e. VDH and other state employees who serve in the State Emergency Operations Center in Waterbury and at the Health Operations Center in Burlington.
 8. VDH allocates and distributes potassium iodide tablets for emergency workers and the general public to prevent the harmful effects of radioactive iodine exposure that might occur with a VYNPS accident.
 9. VDH staff assist the Department of Public Safety Division of Emergency Management and Homeland Security (EMHS) in the development of VYNPS radiological emergency plans and the training and exercising of those plans for numerous agencies of state and local government.
 10. VDH is a regular participant in meetings of the Tri-States Directors, the three Emergency Management Directors of the states within which the VYNPS Emergency Planning Zone exists.

For the year 2012, the VDH was reimbursed for all its costs of conducting these responsibilities through a memorandum of understanding with the Department of Public Safety EMHS Division. The Federal Emergency Management Agency (FEMA) has assessed the Department of Health as part of its VYNPS Radiological Emergency Plan (REP) exercise program as effective. The latest assessment is found in an After Action Report for the May 2011 Ingestion Pathway Exercise published on August 1, 2011. In addition, FEMA verifies the maintenance of all REP required elements in an annual letter of certification submitted to FEMA by the Vermont Department of Public Safety Division of EMHS.

Agency of Natural Resources

The Agency of Natural Resources responsibilities for assuring the safety and health of the public as the result of the operation of a nuclear power station are as follows:

Radiological: Texas Low-Level Radioactive Waste Compact (10 VSA§ 7065).

The Agency of Natural Resources (ANR) shall and may, enforce, collect and compile:

- a. Procedures for packaging, processing, and waste form specifications for low-level radioactive waste shipments to the compact facility.
- b. Procedures for minimization of the volume of low-level radioactive waste generated.
- c. Data and information.
- d. Procedures for reports and manifests from generators of low-level radioactive waste within the state concerning the quantities, concentrations, and characteristics of waste generated and shipped; proposed transportation methods and routes; proposed shipment schedules; expected generation rates; packaging; and storage conditions and any other information reasonably necessary for the agency and the compact to carry out their responsibilities.

Non- Radiological: Clean Water Act and the National Pollutant Discharge Elimination System Permit.

The ANR administers the Federal Clean Water Act (CWA) by permitting Entergy's Thermal Discharge:

- ▶ CWA 316(a) – the thermal discharge effluent limit assure the protection and propagation of the balanced, indigenous population (BIP) of shellfish, fish and wildlife in the receiving waters.
- ▶ CWA 316(b) - the location, design, construction and capacity of cooling water intake structures (CWIS) reflect the best technology available for minimizing adverse environmental impact.

316b focuses on the impacts of the CWIS:

- ▶ Entrainment – occurs when the cooling towers draw in aquatic organisms.
- ▶ Impingement – occurs when the flow of water traps aquatic organisms against grills or screens as the water is drawn into the CWIS.

Non Radiological: Air Quality

The Air Pollution Control Division (APCD) regulates the following air pollution sources at the Entergy Vermont Yankee facility:

- Two 16.7 MMBTU No.2 fuel oil boilers
- Two 4,182 bhp emergency diesel generators (2,750 kW each)
- One 1,017 bhp emergency diesel generator (759 kW)
- One diesel emergency fire pump
- One waste oil furnace
- Cooling tower (a source of particulate matter and toxics from cooling water additives)

The facility is not currently required to obtain an Air Pollution Control permit but is required pursuant to Subchapter VIII of the Vermont Air Pollution Control Regulations to quantify and register its emissions from each of the sources noted above annually. The cooling tower is a source of particulate matter air pollution due to dissolved solids that remain in the air after the entrained water droplets emitted from the cooling tower evaporate. Some of these dissolved solids and volatiles in the water may be additives to the cooling tower water to reduce scaling and biological growth

Non –Radiological: Facility Management

As Entergy Vermont Yankee is an industrial facility with a large workforce, the Agency addresses a number of activities. These include: water supply, waste disposal, residuals and stormwater. There are wetlands on the property.

Technical Experts:

Expertise resides at ANR to address issues as they arise, for example: tritium release; review of flood issues; and seismic concerns. ANR contributes staff and resources to the VT State HAZMAT Response Team and the Department of Environmental Conservation Spill Team.

Homeland Security Emergency Management

The Department of Public Safety, Division of Emergency Management and Homeland Security (DEMHS) maintains operational oversight and implementation of the statewide Radiological Emergency Response Program. Radiological Emergency Response Planning is authorized under Title 20, Vermont Statutes Annotated, Section 3a. More specifically DEMHS is responsible to- “design the radiological emergency response plan to protect persons and property within this state who or which might be threatened as the result of their proximity to any operating nuclear reactor.”

To enhance planning and preparedness regarding an incident at Vermont Yankee DEMHS operates a satellite office in the Vermont Yankee Emergency Planning Zone (EPZ) in order to interface with local, state, federal and private sector representatives. DEMHS staff regularly conduct training with local officials in the EPZ towns, facilitate the creation, revision, and update of local plans, maintain radiological and communications equipment at facilities activated, and participate in quarterly exercises in which the utility, off-site response organizations, and field teams practice response to an

incident at the plant. DEMHS provides an important link crucial to successful coordination between organizations meant to ensure the health and safety of the public. In addition to maintaining a local presence in the EPZ, DEMHS is responsible for several actions to ensure preparedness:

- Notification and Warning: DEMHS maintains the notification system for all emergency responders involved in VY response. Notification tests are conducted on a monthly basis.
- Public Information- DEMHS distributes information pertinent to this type of incident as well as instructions on what to do should it happen. During response, the State of Vermont coordinates with the other two states and the utilities in the Joint information Center to distributing safety information to the public.
- Letters of Agreement and Memoranda of Understanding- DEMHS maintains several agreements with organizations and agencies in both the public and private sector to ensure resources are on hand and responsibilities are understood by all parties involved.
- RERP Fund- DEMHS oversees the primary funding source established in Vermont statute to support ongoing preparedness and education activities for emergency responders. This funding source is supported by Vermont Yankee and provides for personnel, training, operational and equipment costs necessary to support the RERP program.
- Coordination of Agencies and Organizations at all levels of Government- in order to effectively advocate for the continued readiness of the State of Vermont, DEMHS coordinates activities between local, state, and federal officials, the utility, and the neighboring New England states. These activities support the federal requirements outlined in NUREG 0654/ FEMA REP-1 and 44 CFR Part 350 to provide reasonable assurance that offsite response organizations can protect the health and safety of the public in the event of an incident at the nuclear power plant.

MEETINGS

There were four meetings of the VSNAP held in 2012. All the meetings are summarized below:

Meeting of June 27, 2012 at the Vermont Statehouse in Montpelier

The focus of this meeting was on Vermont Yankee's response and schedule to comply with the NRC orders and requests for information in response to the Fukushima event. A representative of Vermont Yankee provided a presentation of the activities being undertaken and answered questions from the VSNAP. The VSNAP also discussed finalizing their 2011 annual report, and were given an update on nuclear issues that the Department was following.

Action Item Responses Provided in Writing - (Provided in Attachment 2)

- 1) Vermont Yankee to provide answers to the following: (1) How long can the cooling water basin provide cooling until the water volume would need to be replenished, and (2) is Vermont Yankee going to respond to the NRC request to the industry for a voluntary response to a 2.206 petition by the Union of Concern Scientists.
- 2) A request was made to Vermont Yankee for a revised spent fuel loading schedule at Vermont Yankee.
- 3) The Chair requested that the Department nuclear engineer provide a summary to the VSNAP on issues that the Department is following at Vermont Yankee and the NRC. The summary of items is provided in Attachment 2 and have been completed.

Motions passed at this meeting included:

- 1) The minutes of the December 14, 2011 VSNAP meeting were approved.
- 2) The 2011 Annual Report was approved with edits.
- 3) The Panel requested that the Director of Vermont Emergency Management (VEM) respond to the Panel on emergency planning and response issues raised in a letter from the Town of Dummerston submitted at the previous VSNAP. VEM fulfilled this request at the September 10, 2012 VSNAP meeting.

Meeting of September 10, 2012

The focus of this meeting was on issues surrounding emergency planning and response for the Vermont Yankee nuclear station. A representative of FEMA Region 1 presented information on FEMA's role with regard to emergency planning for the Vermont Yankee nuclear station. The acting director of VEM provided a presentation on the Emergency Radiological Response Plan (RERP) budget process, and addressed questions concerning the utilization of Interstate 91 as an evacuation route, and emergency evacuation concerns posed by the Town of Dummerston. The Executive Director of the Vermont Red Cross provided the VSNAP with information on the Red Cross' responsibilities regarding Radiological Emergency Response Planning. Dr. Irwin from the Vermont Department of Health informed the VSNAP of the New England Radiological Health Committee which provides for cooperation among the New England states to share resources in the event of a radiological event.

Action Item Responses Provided in Writing - (Provided in Attachment 3)

- 1) The Panel requested VEM to provide their proposed FY2013 budget for VY RERP.
- 2) The Panel requested VEM to provide a comparison of other states' budgets for RERP. VEM provided the budgets for New Hampshire and Massachusetts.

Motions passed at this meeting included:

- 1) The minutes of the July 9, 2012 VSNAP meeting were approved.

Meeting of November 8, 2012

The focus of this meeting was a discussion among the VSNAP members on whether Vermont Emergency Management Homeland Security (VEMHS) should be formally included as a member of the VSNAP. The value of having VEMHS was clearly expressed and recognized by all members of the VSNAP but a recommendation from the Panel was not formulated at this meeting. Department staff also provided a summary of Department activities regarding commenting on NRC draft guidance for Fukushima related seismic and flood analysis that nuclear stations will be required to conduct. The VSNAP was also informed on an amendment that Vermont Yankee is seeking to install a diesel electricity generator to meet the NRC regulations for Station Blackout, as well as the need for Vermont Yankee to receive a Certificate of Public Good (CPG) to install the generator on their site.

Action Item Responses Provided in Writing - None

Motions passes at this meeting - None

Meeting of November 29, 2012

The focus of this meeting was a presentation Catherine Gjessing of the Agency of Natural Resources (ANR) on the National Pollutant Discharge Elimination System (NPDES) permitting process as it applies to the Vermont Yankee Nuclear Station. Dr. Kanat presented documents that he acquired from the NPDES website on apparent violations where regulatory limits from Vermont Yankee's discharge into the Connecticut River have exceeded permit levels. Catherine Gjessing agreed to provide a letter to the Panel explaining the apparent NPDES violations by Entergy Vermont Yankee found on the US EPA Enforcement and Compliance History Online (ECHO) website which is provided in Attachment 10. The letter noted that the majority of data indicating a violation was inaccurate due to transcribing data into this database. One PH data point was in violation but was deemed insignificant considering river water flows due to tropical storm Irene. The Panel also voted to have ANR provide future notification to VSNAP of any NPDES violations by Entergy Nuclear Vermont Yankee.

Larry Becker provided the panel with information on his activities and discussion with the NRC on their reevaluation of seismic analysis for nuclear power stations.

Chairman Miller explained the Departments activities pertaining to Vermont Yankee needing to install a diesel generator since they will no longer be able to credit the Vernon Tie Line to meet station blackout NRC regulations beginning in September 1, 2013. Also, that the Department will be providing comments to the

NRC on the scope of the Environmental Impact Study for the NRC Waste Confidence Decision.

Action Item Responses Provided in Writing -

- 1) The Panel requested Catherine Gjessing to provide a letter explaining the apparent NPDES violations by Entergy Vermont Yankee found on the US EPA Enforcement and Compliance History Online (ECHO) website.
- 2) The Panel motioned to send a memo to ANR requesting that NPDES violations pertaining to the Vermont Yankee nuclear station be reported to the VSNAP. This has not been completed.

Motions passed at this meeting -

- 1) A motion was passed that upon completion of the ANR website (which will provide information relating to Vermont Yankee's regulatory compliance, permitting, and studies), a link be placed on the VSNAP website. This has not been completed.

LEGISLATIVE ENACTMENTS

There were no Legislative enactments involving the VSNAP in 2012.

LOOKING AHEAD TO 2013

For the year 2013, the VSNAP plans to review the following topics among other issues that may arise:

- Spent fuel management at Vermont Yankee
- Vermont Yankee's progress implementing the US NRC Fukushima recommendations.

RECOMMENDATIONS

In 2012, the meetings of the VSNAP focused largely on Emergency Planning Issues, and it was recognized by the Panel, as well as by the members of the public, the value of having representatives of Homeland Security Emergency Management (HSEM) present at the VSNAP meetings to engage in constructive discussion on emergency planning and response issues pertaining to the Vermont Yankee nuclear station. The VSNAP panel had considerable discussion whether it would be appropriate and of value to recommend to the Legislature and Governor the amendment of the VSNAP statute to add the commissioner of HSEM as a member of the VSNAP. The Panel could not reach a consensus on this recommendation, but recommends that the Legislature explore the addition of the director of the division of HSEM to VSNAP. The Panel did however agree to request that the commissioner of HSEM or his designee attend all meeting of the VSNAP.

ATTACHMENT 1

Title 18: Health

Chapter 34: NUCLEAR ADVISORY PANEL

§ 1700. Creation; membership; officers; quorum

- (a) There is created a nuclear advisory panel which shall consist of the following:
- (1) the secretary of the agency of human services or designee;
 - (2) the secretary of the agency of natural resources or designee;
 - (3) the commissioner of the department of public service, or his or her designee;
 - (4) one member of an energy committee of the Vermont house of representatives, chosen by the speaker of the house;
 - (5) one member of an energy committee of the Vermont senate, chosen by the committee on committees; and
 - (6) two members of the public, selected by the governor for terms of four years.
- (b) Ex officio members shall serve for the duration of their time in office or until a successor has been appointed. Members of the general assembly shall be appointed for two years or until their successors are appointed, beginning on or before January 15 in the first year of the biennium. Representatives designated by ex officio members shall serve at the direction of the designating authority.
- (c) The commissioner of the department of public service shall serve as chairperson.

(d) A majority of the members of the panel shall constitute a quorum. The panel shall act only by vote of a majority of its entire membership and only at meetings called by the chairperson or by any three of the members. The person or persons calling the meeting shall provide adequate notice to all its members.

(e) Members of the panel, except for ex officio members and except for legislative members while the general assembly is in session, shall be entitled to \$30.00 per diem and their necessary and actual expenses. Funds for this purpose shall come from the monies collected under section 22 of Title 30 for the purpose of maintaining the public service board.

(f) The department of public service shall:

(1) keep the panel informed of the status of matters within the jurisdiction of the panel;

(2) notify members of the panel in a timely manner upon receipt of information relating to matters within the jurisdiction of the panel; and

(3) upon request, provide to all members of the panel all relevant information within the department's control relating to subjects within the scope of the duties of the panel.
(Added 1997, No. 147 (Adj. Sess.), § 271, eff. April 29, 1998; amended 2009, No. 135 (Adj. Sess.), § 7.)

§ 1701. Duties

The duties of the panel shall be:

(1) To hold a minimum of three public meetings each year for the purpose of discussing issues relating to the present and future use of nuclear power and to advise the governor, the general assembly and the agencies of the state thereon with a written report being provided annually to the governor and to the energy committees of the general assembly;

(2) To define the responsibilities of state agencies for assuring the safety and health of the public as the result of the operation of a fixed nuclear facility and to assess the ability of state and local governments to meet this responsibility in terms of both technical expertise and financial support;

(3) To discuss proposed changes in operations or specific problems that arise in the operation of a fixed nuclear facility, and to prepare and present technical data to serve as a basis for establishing the state's position on such changes or problems;

(4) To maintain communications with the operators of any fixed nuclear facility, including the receipt of written reports and presentations to the panel at its regular meetings;

(5) To develop awareness in the state and in the state government of the potential liabilities, benefits or repercussions of nuclear power generation in the state in comparison to other electrical energy sources; and

(6) To review the current status of state relations with the Nuclear Regulatory Commission and to seek some agreement on federal and state regulatory efforts. (Added 1997, No. 147 (Adj. Sess.), § 271, eff. April 29, 1998; amended 2009, No. 135 (Adj. Sess.), § 8.)

§ 1702. Assistance

Staff services for the committee shall be furnished by the department of public service, the agency of human services, the agency of environmental conservation and the office of the attorney general. (Added 1997, No. 147 (Adj. Sess.), § 271, eff. April 29, 1998.)

ATTACHMENT 2

- Vermont Yankee Items being followed by the Department - dated 9/10/2012
- Memo to VSNAP from Uldis Vanags, State Nuclear Engineer, Answers to questions, dated 9/5/2012

Vermont Yankee items being followed by the Department September 10, 2012

Steam Dryer Inspection Frequency Change

Vermont Yankee submitted an amendment change to the NRC to change the inspection frequency of the steam dryer. The Department is following the review of this application by the NRC and may file comments to the NRC when VY submits a revised inspection plan in the coming months.

Vermont Yankee application to NRC and the PSB to install a station blackout (SBO) diesel

Presently, by the end of the year, Vermont Yankee will no longer be able credit the Vernon Tie as a back-up electrical supply in the event of losing all off-site electricity and the two on-site emergency diesel generators. Vermont Yankee is proposing to site a diesel generator in the protected area of the nuclear station site to meet the NRC regulatory requirements for SBO. Vermont Yankee will be submitting an amendment change to the NRC in September which the Department will review.

NRC Fukushima Orders

The Department is reviewing Entergy's responses to the NRC Fukushima Orders, as well as reviewing and commenting when appropriate on NRC's development of guidance documents and rulemaking. The following items are under review or will be reviewed:

- NRC revised rule on station blackout (SBO)
The NRC is revising the SBO rule that was promulgated in 1988 in light of the Fukushima event. The Department will be reviewing the draft rule when it is published sometime next year.
- NRC orders for Hardened Vent and Spent Fuel instrumentation. The NRC finalized the guidance for these orders on August 31, 2012 and the department will be reviewing Vermont Yankee's plans to implement these orders due to the NRC in February 2013.
- On September 10, 2012, NRC issued draft rules for public comment on guidance for conducting a seismic analysis at nuclear stations. The Department will review this draft rule jointly with the State Geologist in the Vermont Department of Conservation and may issue comments to the NRC within the 30 day public commenting period.

Department tracking of Vermont Yankee Human Performance issues

The Department has notified and discussed with the NRC its concerns of errors occurring at Vermont Yankee which are attributed to human performance. The Department is continuing to monitor this issue.

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September 5, 2012

From: Uldis Vanags, State Nuclear Engineer

To: Members of the Vermont State Nuclear Advisory Panel

Subject: Answers to questions directed to Vermont Yankee at the July 9, 2012 VSNAP meeting

Questions were directed to Vermont Yankee at the July 9, 2012 meeting of the VSNAP. The questions were posed to Vermont Yankee and the answers conveyed to me are provided below:

- 1) How long can the cooling water basin provide cooling until the water volume would need to be replenished?
Answer: "The cooling Tower deep basin is sized for one week of operation before makeup water is required from off-site sources for the scenario where the Vernon Pond is lost." From the VYNPS Updated Final Safety Analysis Report Revision 23 page 10.8-5.
- 2) Is Vermont Yankee going to respond to the NRC letter (of July 6, 2012) denoting the right to submit a voluntary response to a 2.206 petition by the Union of Concerned Scientist?
Answer: No. Response will be from the nuclear industry. (e.g. NEI)
- 3) Provide a revised spent fuel loading schedule for Vermont Yankee.
Answer: The loading schedule is provided in the Spent Fuel Management Plan, Revision 2, dated March 2011, page 3. The table is copied below:

PLANNED LOADING SCHEDULE		
Loading Campaign Years	Number of Casks to be Processed	SNF Assemblies Discharged to ISFSI Pad
2011	4	272
2012	4	272
2015	5	340
2018	6	408
2021	6	408
2024	6	408



ATTACHMENT 3

- Memo from HSVEM to VSNAP, Radiological Emergency Response Plan Funding Process, dated 12/5/2012
- Memo from Erica Bornemann to VSNAP, Vermont Yankee Emergency Planning Zone Funding, dated 12/5/2012

Memo

To: Vermont State Nuclear Advisory Panel Members
From: Joe Flynn, Director Vermont Division of Emergency Management and Homeland Security
Date: 12/5/2012
Re: Radiological Emergency Response Plan Funding Process

The special fund established in 20 V.S.A. § 38. Special funds is the primary source of support for planning, preparedness, and response operations in the event of an incident involving Vermont Yankee Nuclear Power Station. This memo outlines the process in which those funds are managed and allocated on a yearly basis.

The Vermont Division of Emergency Management and Homeland Security (EMHS) is responsible for the administration and programmatic development of the RERP fund in coordination with parties involved with the support of the program (EPZ towns, regional planning commissions, state agencies and organizations, other offsite response organizations, and management of the nuclear plant). Annually EMHS presents a budget to the legislature of anticipated costs for the following fiscal year for approval. Below is the annual process for building the budget and allocating the funds.

- **August** – Local and state budget requests for the upcoming fiscal year due to EMHS
- **September** – Initial RERP budget drafted
 - Budget consists of proposed sub-grants (based on the applications received) as well as operating costs of the EMHS staff in support of the program
- Budget request follow-up and coordination between prospective sub-recipients, VY, and EMHS
 - Based on those requests, EMHS staff meet with the applicants to gain a full understanding of the requests as well as their applicability to the support of the program
 - Sub-recipients include towns, response organizations, regional planning commissions, and state agencies and organizations
- **October** – RERP budget finalized by EMHS
 - Based on the meetings with sub-recipients, EMHS makes a recommendation on the amount of funds to be allocated to each as needed to support the program and meet the needs defined in the plans
- **November** –EMHS budget (including RERP budget) submitted to Department of Public Safety
- **December** - Submission of the total DPS budget to the Department of Finance & Management
- **January** - Submission of State Budget to Legislature

Memo

To: Vermont State Nuclear Advisory Panel
From: Erica Bomemann, Planning Chief
Date: 12/5/2012
Re: Vermont Yankee Emergency Planning Zone Funding

Listed below is the Radiological Emergency Response Plan funding applied to support overall preparedness and planning for a radiological incident involving Vermont Yankee Nuclear Power Station for fiscal year 2013 in Vermont, New Hampshire, and Massachusetts.

Vermont-

Total Funding = **\$2,321,510**

Distributed to the following parties- 6 EPZ Towns (Brattleboro, Vernon, Guilford, Halifax, Marlboro and Dummerston) The Reception Center (Westminster) 4 Regional Planning Commissions (ACRPC, SWCRPC, TRORC and WRC) WTSA, Windham County Sheriff's Office, Rescue Inc., our offices in Waterbury and Brattleboro, United Way and the SSF's (AOT, VDH, ANR, DOL, AG, AHS, DEC, and Fish and Wildlife).

Permanent population in the VY EPZ for VT is 20,0387 – p.p. approximately **\$115.85**

New Hampshire

Total Funding = **\$1,265,530.**

That amount is based upon requests from EPZ, HSEM costs, other state agency requests, etc. They have 5 EPZ communities and 1 Host Community for VY. The total requested for EPZ Communities was \$144,375, Host Community (Keene) \$52,785 and State Agencies (other than DPHS) is \$178,517. This includes the State Transportation Staging Agency. DPHS receives \$133,340. For the State Agencies, DPHS and HSEM our total cost for the REP program is split between VY and Seabrook Station – (SS has 17 EPZ communities and 3 host communities).

Permanent population in the VY EPZ for N.H. is 21,200 – p.p. approximately **\$60**

Massachusetts

Total Funding = **\$869,000 (approx.)**

Permanent population in the VY EPZ for MA is 7411 – p.p. approximately **\$117**

ATTACHMENT 4

- Letter to Commissioner Recchia from Catherine Gjessing on Vermont Yankee compliance with NPDES dated 1-24-2013



State of Vermont
Department of Environmental
Conservation
103 South Main Street, 1 South
Waterbury, VT 05671-0401

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Agency of Natural Resources

January 24, 2013

Commissioner Chris Recchia
Public Service Department
112 State Street
Montpelier, VT 05620-2601

In Re: Entergy Nuclear Vermont Yankee NPDES compliance

Dear Commissioner Recchia:

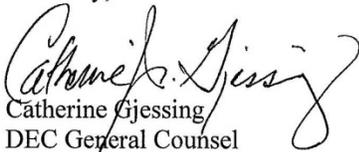
I am writing to follow up on compliance issues that were raised at the November 29, 2012 Vermont State Nuclear Advisory Panel meeting. During the meeting, Dr. Kanat had some questions regarding the Entergy Nuclear Vermont Yankee's (Entergy) compliance with the thermal discharge permit administered by the Vermont Agency of Natural Resources.

Specifically, the US EPA Enforcement and Compliance History Online (ECHO) website indicated that there were several violations of the NPDES permit. The majority of the violations listed on the ECHO website for Entergy are not accurate. Unfortunately, the transfer of Vermont data to the EPA Permit Compliance System (PCS) database from which data is extracted to the ECHO site has been problematic. We are, however, working cooperatively with EPA and are implementing a data flow to EPA's ICIS database which replaced PCS. When transition is complete, this data flow should eliminate any inaccuracies between the state and national compliance tracking databases.

Enclosed please find Entergy monitoring reports since July of 2009. These reports indicate that there was only one pH violation since July 2009. On September 1, 2011, the discharge was measured at a pH of 8.6. This value is outside the permitted range of 6.5 – 8.5 Standard Units. Given the post tropical storm Irene river flows, the 8.6 value is not of environmental significance.

Please feel free to contact Ernie Kelley at ernie.kelley@state.vt.us or 802-490-6187 with any questions or concerns you may have.

Sincerely,


Catherine Gjessing
DEC General Counsel

cc: Ernie Kelley, Wastewater Management Program Manager
Justin Johnson, ANR Deputy Secretary



Department of Fish & Wildlife . Department of Forests, Parks & Recreation . Department of Environmental Conservation