

LBP-07-12

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD PANEL

DOCKETED 10/17/07

Before Administrative Judges:

SERVED 10/17/07

Ann Marshall Young, Chair
Dr. Paul B. Abramson
Dr. Richard F. Cole

In the Matter of:

ENTERGY NUCLEAR GENERATION
COMPANY AND ENTERGY NUCLEAR
OPERATIONS, INC.
(Pilgrim Nuclear Power Station)

Docket No. 50-293-LR

ASLBP No. 06-848-02-LR

October 17, 2007

MEMORANDUM AND ORDER
(Ruling on Entergy's Motion for Summary Disposition of Pilgrim Watch Contention 1,
Regarding Adequacy of Aging Management Program for Buried Pipes and Tanks
and Potential Need for Monitoring Wells to Supplement Program)

This proceeding involves the application of Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc., to renew the operating license for the Pilgrim Nuclear Power Station for an additional twenty-year period. In LBP-06-23, issued October 16, 2006, this Licensing Board granted the Petition to Intervene of, and admitted two contentions submitted by, the non-profit citizens' organization, Pilgrim Watch.¹ In this Memorandum and Order we deny Applicant Entergy's Motion for Summary Disposition of Pilgrim Watch Contention 1,² finding that the Applicant has failed to demonstrate the absence of any genuine issue of

¹ *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257 (2006). The Town of Plymouth, Massachusetts, where the Pilgrim plant is located, is also participating in this proceeding as an interested local governmental body, pursuant to 10 C.F.R. § 2.315(c). See *id.* at 266.

² Entergy's Motion for Summary Disposition of Pilgrim Watch Contention 1 (June 8, 2007), ADAMS Accession No. ML071640454 [hereinafter Entergy Motion].

material fact with regard to Contention 1, but also clarify the scope of issues remaining for litigation on Contention 1.³

Contention 1, as admitted, reads as follows:

The Aging Management program proposed in the Pilgrim Application for license renewal is inadequate with regard to aging management of buried pipes and tanks that contain radioactively contaminated water, because it does not provide for monitoring wells that would detect leakage.⁴

A. Entergy's Grounds for Motion

Citing 10 C.F.R. § 2.710(d)(2), Entergy asserts with regard to Contention 1 that “no genuine issue as to any material fact exists and, thus, Entergy is entitled to a decision as a matter of law.”⁵ Entergy contends that “[t]here are no material facts in dispute that warrant holding a hearing on this contention.”⁶ In its view, Contention 1 “provides no basis to dispute the adequacy of the [aging management programs, or] AMPs for underground pipes and tanks and, moreover, raises issues beyond the scope of this proceeding.”⁷ Challenging Pilgrim Watch’s “fundamental[understanding of] the purpose and scope of the AMPs for buried pipes and tanks implemented under 10 C.F.R. Part 54,” Entergy argues that this purpose “is not to prevent the radioactive contamination of the soil or groundwater, which is an ‘everyday operational issue,’ but to manage the aging effects of critical plant functions that

³ In this Memorandum and Order we rule on one of two pending motions for summary disposition, the other of which concerns the one other contention we admitted in LBP-06-23. See Entergy’s Motion for Summary Disposition of Pilgrim Watch Contention 3 (May 17, 2007) ADAMS Accession No. ML071440321.

⁴ *Pilgrim*, LBP-06-23, 64 NRC at 315. We also noted in admitting the contention that, with respect to which actual pipes and tanks fall within the aging management program for the Pilgrim plant, “this is addressed to an extent in the Application, although further definition may be required as the adjudication of this case proceeds forward.” *Id.* at 315 n.261.

⁵ Entergy Motion at 1.

⁶ *Id.* at 3.

⁷ *Id.* at 4.

prevent and mitigate design basis accidents or other functions of principal importance to plant safety.”⁸

Entergy also avers that the program challenged by Pilgrim Watch “solely concerns the exterior surfaces of buried pipes and tanks and that wholly separate programs are designed to protect and ensure the integrity of the interior surfaces of underground pipes and tanks.”⁹ In addition, according to Entergy, “[o]nly the condensate storage system and possibly the salt service water system (‘SSW’) at [the Pilgrim plant] are within the scope of license renewal and have buried components containing radioactive water,” and neither of those contain buried tanks.¹⁰ Entergy makes several arguments to the effect that certain comparisons made by Pilgrim Watch in its original Contention 1 are not relevant to these systems or to any asserted susceptibility to radioactive leakage at the Pilgrim plant.¹¹ Arguing that a monitoring system such as that sought by Pilgrim Watch in Contention 1 is “not within the scope of license renewal,” Entergy insists that the system is instead a matter involving the plant’s current licensing basis, or CLB,¹² and that the “existing regulatory process maintains the performance of . . . [relevant] buried pipes and tanks that may contain radioactively contaminated water in order to keep any exposures to radiation below applicable regulatory limits for normal operations.”¹³

⁸ *Id.* (citing *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-06-4, 63 NRC 32, 37 (2006)).

⁹ *Id.* (citing Entergy Motion, Attached Declaration of Alan Cox in Support of [Entergy Motion] ¶¶ 25-27, 32, 34) (June 5, 2007) [hereinafter Cox Declaration].

¹⁰ *Id.* & n.6 (citing Cox Declaration ¶ 19 n.3).

¹¹ Entergy Motion at 4-5.

¹² *Id.* at 5.

¹³ *Id.* at 16.

Entergy concludes that, because Pilgrim Watch has allegedly “failed to dispute ‘facts that might affect the outcome of the suit under the governing law,’ . . . its remaining ‘irrelevant or unnecessary’ claims should ‘not be counted’” in ruling on Entergy’s motion for summary disposition.¹⁴ Entergy also supports its motion with, among other things, discussions of the function and purpose of license renewal AMPs and Pilgrim’s AMP for buried pipes and tanks;¹⁵ a “Response to the Issues Raised in Pilgrim Watch Contention 1,” in which it repeats some of the arguments summarized above;¹⁶ a Statement of Material Facts;¹⁷ and the Declaration of Alan Cox, the Technical Manager for License Renewal of the Pilgrim plant, who has a bachelor’s degree in nuclear engineering and a master’s degree in business administration.¹⁸

Entergy’s Statement of Material Facts includes the following (all supported by the Cox Declaration):

- That the purpose of Pilgrim’s aging management program — which includes the “Buried Piping and Tanks Inspection Program, the Water Chemistry Control-BWR [boiling water reactor] Program, the Service Water Integrity Program, and the One-Time Inspection Program”¹⁹ — is “to manage the effects of aging so that the intended function(s) of systems, structures, and components will be maintained consistent with the [CLB] for the period of extended operation.”²⁰
- That the “objective of the AMPs as applied to buried pipes and tanks is to maintain the pressure boundary of the buried pipes and tanks so as to ensure that the systems containing the buried pipes and tanks can perform their system intended functions.”²¹

¹⁴ *Id.* at 5 (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)).

¹⁵ *Id.* at 5-14.

¹⁶ *Id.* at 14-24.

¹⁷ Statement of Material Facts (June 8, 2007) [hereinafter Entergy Statement].

¹⁸ Cox Declaration ¶¶ 1, 2.

¹⁹ Entergy Statement ¶ 17.

²⁰ *Id.* ¶ 1.

²¹ *Id.* ¶ 18; see also *id.* ¶ 36.

- That preventing leakage of radioactive liquid from buried pipes and tanks “is not an intended safety function or other license renewal intended function,” and that such leakage “is not a design basis event that could cause accident consequences comparable to those referred to in §§ 50.34(a)(1), 50.67(b)(2) or 100.11.”²²
- That the only system at the Pilgrim plant that falls within the scope of license renewal under 10 C.F.R. § 54.4, and has buried pipes or tanks designed to contain radioactive liquid, is the condensate storage system, which provides a source of water to the reactor core isolation cooling (RCIC) and high pressure coolant injection (HPCI) pumps; that radioactive contamination of the salt service water (SSW) system, which “functions as the ultimate heat sink for the reactor building closed cooling water and turbine building closed cooling water systems during plant operations” and is “designed to contain only non-radioactive water but cools systems that contain radioactive liquid, is highly unlikely”; and that other buried pipes and tanks relevant to license renewal neither contain radioactive liquid nor “interact with any systems that contain radioactivity.”²³
- That buried pipes in the condensate storage system are made of stainless steel; that buried SSW pipes are made of titanium and carbon steel; and that preventive measures such as protective coatings and “periodic and opportunistic inspections” — *i.e.*, inspection during any maintenance excavations, at least one additional inspection during the ten years prior to entering the proposed extended license period, and one “focused” inspection during the first ten years of the extended period “unless an opportunistic inspection occurs within this ten-year period” — are used to manage the effects of corrosion of these pipes.²⁴
- That the preventive measures at Pilgrim are “in accordance with standard industry practice”; supported by industry operating experience; and confirmed by operating experience at the Pilgrim plant, which also demonstrates that “the periodicity of periodic and opportunistic inspections” at Pilgrim is sufficient to insure protection against external corrosion and “maintain the intended functions of the buried components.”²⁵
- That the water chemistry control program at Pilgrim — which is “based on Electric Power Research Institute BWR water chemistry guidelines,” confirmed by industry and Pilgrim operating experience, and will be supplemented by visual inspection of representative samples of interior piping surfaces (in the “One-Time Inspection Program”) — minimizes the potential for internal corrosion of buried components; and that the Service Water Integrity Program, which provides for routine inspection for internal corrosion and “other

²² *Id.* ¶¶ 4, 5.

²³ *Id.* ¶¶ 7-9, 13, 14.

²⁴ *Id.* ¶¶ 12, 15, 19, 24.

²⁵ Entergy Statement ¶¶ 20-23, 26.

aging mechanisms that can degrade the SSW system,” has been “successfully implemented.”²⁶

- That Pilgrim is a BWR with an above-grade spent fuel pool in the reactor building, which “makes a leak from the spent fuel pool readily detectable by plant personnel and unrelated to AMPs for buried pipes and tanks.”²⁷
- That leakage events at other nuclear power plants “had nothing to do with the leakage of buried components that were in contact with a soil environment and had experienced aging as a result of this environment,” and have not been “identified as having conditions that are analogous or relevant to the configuration or design of the buried piping containing radioactively contaminated water” at the Pilgrim plant.²⁸
- That “NRC Bulletin 88-05 alerted utilities to potential counterfeit and substandard pipe fittings and flanges, and the previous [Pilgrim] owner and operator identified, located and remediated, as appropriate, any counterfeit and substandard pipe fittings and flanges.”²⁹

B. NRC Staff’s Response to Motion

The Staff in its Response to Entergy’s Motion refers to the limited scope of license renewal proceedings, the objective of which is to “determine whether the detrimental effects of aging, which could adversely affect the functionality of systems, structures, and components that the Commission determines require review for the period of extended operation, are adequately managed.”³⁰ Staff cites two basic principles of license renewal:

(1) [W]ith the possible exception of the detrimental effects of aging on the functionality of certain plant systems, structures, and components in the period of extended operation and possibly a few other issues related to safety only during extended operation, the regulatory process is adequate to ensure that the licensing bases of all currently operating plants provides and maintains an acceptable level of safety so that operation will not be inimical to public health and safety or common defense and security.

²⁶ *Id.* ¶¶ 27-30.

²⁷ *Id.* ¶ 37.

²⁸ *Id.* ¶¶ 38, 42; *see id.* ¶¶ 39-41.

²⁹ *Id.* ¶ 44.

³⁰ NRC Staff Response to [Entergy Motion] at 5 (June 28, 2007), ADAMS Accession No. ML071800059 [hereinafter Staff Response]; *see id.* at 4-5 (citing Final Rule, Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,464 (1995)).

(2) “[T]he plant-specific licensing basis must be maintained during the renewal term in the same manner and to the same extent as during the original licensing term” . . . through application of age-related degradation management for systems, structures, and components that are important to license renewal.³¹

Staff argues that these two principles taken together assure that, “so long as the aging effects are adequately managed through the period of extended operation, the current licensing basis ensures adequate safety for design basis events, and therefore need not be considered in a license renewal review.”³²

Staff agrees with Entergy that there are no material facts in dispute, stating that in its view Entergy has correctly identified relevant pipes and tanks subject to aging management, and that “installing a system to monitor possible leakage of radioactively contaminated water from buried pipes and tanks is beyond the scope of this proceeding.”³³ Moreover, Staff argues, “there is no basis to find that the AMPs for the buried pipes and tanks are inadequate,” noting that it has “reviewed the [Application] and performed an onsite audit of the AMPs” and “concluded that they will adequately manage the effects of aging.”³⁴

C. Pilgrim Watch Response to Entergy’s Motion and to Staff

Pilgrim Watch points out that Entergy in its Motion raises some of the same arguments previously made in its response to Contention 1, and suggests that these arguments are the primary ones Entergy now provides.³⁵ Intervenors dispute all but two of Entergy’s submitted

³¹ *Id.* at 5-6 (citing 60 Fed. Reg. at 22,464).

³² *Id.* at 6 (citing 60 Fed. Reg. at 22,464).

³³ *Id.* at 7.

³⁴ *Id.* at 8-9

³⁵ Pilgrim Watch’s Answer Opposing [Entergy Motion] at 4 (June 27, 2007), ADAMS Accession No. ML071840038 [hereinafter Pilgrim Watch Answer].

material facts,³⁶ and supports its Answer with the Declaration of David Ahlfeld, Ph.D., Professor at the University of Massachusetts in the Department of Civil and Environmental Engineering, and minutes of the Town of Duxbury's annual town meeting, supporting Pilgrim Watch's call for monitoring wells.³⁷

Prof. Ahlfeld states that radioactive contaminants could leak from the condensate storage system, offgas system piping, and the salt service water system. He notes that, while Entergy "describes the several methods they use to prevent leaks from occurring," it "has not demonstrated that [the plant has] sufficient means of detecting leaks if they occur."³⁸ Noting that leaks can and do occur, at various rates, Prof. Ahlfeld indicates among other things that such leaks are "virtually impossible to detect without the use of direct sampling methods such as monitoring wells."³⁹

Pilgrim Watch disputes some of Entergy's stated material facts as irrelevant, controverts some more directly, and responds to some by expressing a different emphasis — for example, in response to Entergy's statement to the effect that preventing leakage is not an intended safety function of relevant buried pipes and tanks, by indicating that the inspections of buried piping and tanks that are described in the Application at §§ A.2.1.2 and B.1.2 "utilize methods to assure the integrity of the pipes/tanks — so that they will function and will not leak."⁴⁰

In response to Entergy's statements concerning which systems may contain radioactive liquid, Intervenors state that it is "important to consider systems . . . with buried pipes or tanks

³⁶ *Id.* at 5-37.

³⁷ Attachments to Pilgrim Watch Answer.

³⁸ Declaration of David Ahlfeld, PhD, PE In Support of Pilgrim Watch's Response Opposing [Entergy's Motion] at 1 (June 18, 2007) [hereinafter Ahlfeld Declaration].

³⁹ Ahlfeld Declaration at 1.

⁴⁰ Pilgrim Watch Answer at 8; see *id.* at 14.

that contain radioactive liquid . . . BOTH by design and not by design,” and explains in some detail that, in addition to the condensate storage system and the salt service water system, the offgas system has the potential for radioactive water to enter and collect in it when the plant shuts down, noting that in 2006 there was an incident involving a radioactive particle being found in front of the Augmented Offgas Building.⁴¹ Pilgrim Watch also asserts among other things that in some of its statements Entergy omits pertinent information, including information pertaining to “uncontrolled, unplanned, and unmonitored releases of radioactively contaminated water into the ground.”⁴²

Intervenors contest how extensively and satisfactorily underground piping is in fact inspected, and states, in response to Entergy’s statement regarding pipe coatings, that prior replacement of some of these pipes indicates past corrosion, which in turn “indicates the importance of supplementing the aging management program with a monitoring well system.”⁴³ Regarding Entergy’s various AMPs, Intervenors state among other things that, although Entergy may have programs to prevent leaks, it “has not demonstrated they have sufficient means to detect leaks if they occur.”⁴⁴ Intervenors emphasize that, in addition to the objective of maintaining the pressure boundary of pipes and tanks to assure they can perform their intended functions, AMPs also have the purpose of assuring the integrity of such systems “so that there are no unmonitored leaks.”⁴⁵

⁴¹ *Id.* at 9-11.

⁴² *Id.* at 14; *see id.* at 13-14.

⁴³ *Id.* at 15; *see id.* at 21-22.

⁴⁴ *Id.* at 17.

⁴⁵ *Id.*; *see also id.* at 32.

Intervenors dispute that Pilgrim's AMPs provides sufficient preventative measures to assure no leaks, refers to its earlier discussion of the "wear-out phase" of components, and emphasizes the untested aspects of Pilgrim AMPs as well as information that has not been provided about numbers of joints and turns in pipes.⁴⁶ Also challenged are the "standard industry practice," "industry operating experience," and Pilgrim operating experience cited by Entergy, which Intervenors contend are untested for the length of time involved with a renewed license.⁴⁷ Pilgrim Watch emphasizes that "without monitoring wells they do not know with any certainty what pipes have or have not leaked."⁴⁸

In response to Entergy's statement to the effect that Pilgrim's operating experience "demonstrates the sufficiency of the protection provided by the protective coatings," Intervenors note specific operating experience found in the Application indicating corrosion of SSW pipes resulting from the degradation of rubber pipe lining, which continues to be used.⁴⁹ Intervenors dispute that future inspections, protective coatings, the water chemistry program, and other AMPs will in fact prevent corrosion or provide adequate protection of public health and safety in the license renewal term, without monitoring wells to supplement existing measures.⁵⁰

Regarding Entergy's "Response to the Issues Raised in Pilgrim Watch Contention 1," Intervenors suggest again that Entergy essentially re-argues the issues already resolved in LBP-06-23, relying among other things on its responses to Entergy's specific statements of

⁴⁶ Pilgrim Watch Answer at 18-19 (citing Request for Hearing and Petition to Intervene by Pilgrim Watch at 1.3.3 (May 25, 2006), ADAMS Accession No. ML061630125).

⁴⁷ *Id.* at 19-21.

⁴⁸ *Id.* at 21.

⁴⁹ *Id.* at 22 (citing Application at § B.1.2).

⁵⁰ *See id.* at 24-29.

material fact, and on previously-noted parts of the report issued by the Tritium Task Force recognizing the difficulties involved in detecting leaks from underground pipes.⁵¹

Pilgrim Watch concludes that Entergy has “fail[ed] to establish that a genuine issue of material dispute has ceased to exist,” noting that any doubt must be resolved by denying the motion for summary disposition.⁵² Intervenors’ position is that Pilgrim’s aging management program is “inadequate with regard to aging management of buried pipes and tanks that may contain radioactively contaminated water, because it does not provide for monitoring wells that would detect leakage,” requests for which are “simple, straightforward and not expensive,” and the importance of which is demonstrated by the support of the Town of Duxbury.⁵³

We note that, in response to Entergy’s stated facts Pilgrim Watch also addresses some of the environmental consequences of any leaks,⁵⁴ but, because we admitted this contention as a safety and not an environmental contention, we do not find such statements to be relevant to Contention 1. We discuss this further in our ruling, below, following our discussion of the legal standards for summary disposition.

In response to the NRC Staff, Pilgrim Watch among other things notes with regard to a Staff Expert’s statement that “industry practice has shown that properly applied coatings will prevent corrosion . . . unless there is damage during application of the coating and handling of the pipe,” that human error “is always a factor that needs to be addressed” and that “damage could have happened at Pilgrim and gone undetected or could happen in the future.”⁵⁵

⁵¹ *Id.* at 30-37.

⁵² Pilgrim Watch Answer at 38.

⁵³ *Id.* at 39.

⁵⁴ *See, e.g., id.* at 8; 30–31.

⁵⁵ Pilgrim Watch’s Answer to [Staff Response] at 7 (July 6, 2007), ADAMS Accession No. ML072010095 (quoting Affidavit of Dr. James A. Davis Concerning [Entergy Motion] at 16

D. Legal Standards Governing Summary Disposition Motions

NRC regulations at 10 C.F.R. § 2.1205(a) permit a party in a Subpart L proceeding such as this one to submit a motion for summary disposition. Under Section 2.1205(c), resolution of such a motion is governed by the standards for summary disposition set forth in Subpart G of 10 C.F.R. Part 2, which provides at 10 C.F.R. § 2.710(d)(2) that a moving party shall be granted summary disposition “if the filings in the proceeding, . . . together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.”

The standard of whether a movant for summary disposition has shown the “absence of a genuine issue of material fact” comes from Rule 56 of the Federal Rules of Civil Procedure. Under NRC case law, this standard is relevant because motions for summary disposition are analogous to motions for summary judgment under Rule 56 in Federal District Courts, and are therefore generally evaluated according to the same standards used by such trial courts in ruling on motions for summary judgment.⁵⁶

Facts are “material” if they will “affect the outcome of [a proceeding] under the governing law.”⁵⁷ The moving party for summary disposition in an NRC proceeding “bears the burden of showing the absence of a genuine issue as to any material fact,” and a licensing board ruling on a motion “must view the record in the light most favorable to the party opposing such a motion” and deny the motion if the moving party fails to meet its burden, even in the face of an inadequate response.⁵⁸ It has been held in an NRC proceeding that a moving party

(June 28, 2007)).

⁵⁶ See *Advanced Med. Sys., Inc.* (One Factor Row, Geneva, Ohio), CLI-93-22, 38 NRC 98, 102 (1993).

⁵⁷ *Anderson*, 477 U.S. at 248.

⁵⁸ *Advanced Med. Sys.*, CLI-93-22, 38 NRC at 102.

fails to meet its burden when the filings demonstrate the existence of a genuine material fact, when the evidence introduced does not show that the non-moving party's position is a sham, when the matters presented fail to foreclose the possibility of a factual dispute, or when there is an issue as to the credibility of the moving party's evidentiary material.⁵⁹

If the proponent of the motion meets its burden, an opponent must "set forth specific facts showing that there is a genuine issue," and may not rely on "mere allegations or denials."⁶⁰ The opposing party does not, however, have to show that it would prevail on the issues, but rather must "demonstrate that there is a genuine factual issue to be tried."⁶¹ Any fact not controverted will be deemed admitted.⁶² And even if the basic facts are uncontroverted, summary disposition would be "inappropriate when the evidence is susceptible of different interpretations or inferences."⁶³

Nor is summary disposition "a tool for trying to convince a Licensing Board to decide, on written submissions, genuine issues of material fact that warrant resolution at a hearing."⁶⁴ As

⁵⁹ *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), LBP-06-5, 63 NRC 116, 122 (2006) (citing 10A Charles Alan Wright et al., *Federal Practice & Procedure* § 2727 (3d ed. 1998) [hereinafter 10A Wright]).

⁶⁰ *Id.* (citing 10 C.F.R. § 2.710(b); *Advanced Med. Sys.*, CLI-93-22, 38 NRC at 102).

⁶¹ *Advanced Med. Sys.*, CLI-93-22, 38 NRC at 102; see also *American Mfrs. Mut. Ins. Co. v. American Broadcasting - Paramount Theaters, Inc.*, 388 F.2d 272, 280 (2d Cir. 1967). In addition, if a movant satisfies its initial burden and supports its motion by affidavit, "the opposing party must either proffer rebutting evidence or submit an affidavit explaining why it is impractical to do so," and "[i]f the presiding officer determines from affidavits filed by the opposing party that the opposing party cannot present by affidavit the facts essential to justify its opposition, the presiding officer may order a continuance to permit such affidavits to be obtained, or may take other appropriate action." *Advanced Med. Sys.*, CLI-93-22, 38 NRC at 103. These provisions are incorporated in the NRC rules at 10 C.F.R. § 2.710(c).

⁶² *Advanced Med. Sys.*, CLI-93-22, 38 NRC at 102-3.

⁶³ *Hunt v. Cromartie*, 526 U.S. 541, 553 (1999).

⁶⁴ *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 509 (2001); see also *Vermont Yankee*, LBP-06-5, 63 NRC at 121; *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee

has been noted by another Licensing Board in ruling on a summary disposition motion in the *Oyster Creek* license renewal proceeding, “summary judgment is not appropriate if it would require a judge to assess the correctness of facts and conclusions that are embodied in the competing, well-founded opinions of the parties’ experts.”⁶⁵ Similarly, as the *Oyster Creek* board also observed (quoting the U. S. Supreme Court)

Summary judgment is not appropriate if it would require a judge to engage in the making of “[c]redibility determinations, the weighing of the evidence, [or] the drawing of legitimate inferences from the facts,” because the performance of such functions signals the existence of a genuine factual issue whose resolution should be based on a hearing, not a summary judgment motion.⁶⁶

This principle has been recognized in other NRC proceedings as well.⁶⁷ Although “bare assertions and general denials are insufficient to defend against a properly supported motion for summary disposition,”⁶⁸ it is inappropriate at the summary disposition stage for a Board to attempt “to untangle the expert affidavits and decide ‘which experts are more correct.’”⁶⁹ Likewise, this is consistent with Federal Court rulings that, while “wholly conclusory statements

Nuclear Power Station), Memorandum and Order at 5 (Aug. 10, 2007) (unpublished), ADAMS Accession No. ML072220410 [hereinafter *Vermont Yankee* License Renewal Proceeding Summary Disposition Ruling].

⁶⁵ *Amergen Energy Company, LLC* (License Renewal for Oyster Creek Nuclear Generating Station), Memorandum and Order (Denying AmerGen’s Motion for Summary Disposition) at 4 (June 19, 2007) (unpublished), ADAMS Accession No. ML071700768 [hereinafter *Oyster Creek* Summary Disposition Ruling] (citing *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 722-23 (2d Cir. 1993); *Norfolk S. Corp. v. Oberly*, 632 F. Supp. 1225, 1243 (D. Del. 1986), *aff’d*, 822 F.2d 388 (3d Cir. 1987); *Private Fuel Storage*, LBP-01-39, 54 NRC at 509-10).

⁶⁶ *Oyster Creek* Summary Disposition Ruling at 4 (quoting *Anderson*, 477 U.S. at 255).

⁶⁷ See *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-05-4, 61 NRC 71, 80 (2005); *Vermont Yankee*, LBP-06-5, 63 NRC at 122; *Vermont Yankee* License Renewal Summary Disposition Ruling at 6.

⁶⁸ *Duke Cogema*, LBP-05-4, 61 NRC at 81.

⁶⁹ *Id.* at 80 (citing *Private Fuel Storage*, LBP-01-39, 54 NRC at 510); *Vermont Yankee*, LBP-06-5, 63 NRC at 122; *Vermont Yankee* License Renewal Summary Disposition Ruling at 6.

for which no supporting evidence is offered' need not be taken as true for summary judgment purposes," a court "may not make credibility determinations or weigh the evidence" at the summary judgment stage.⁷⁰

On the other hand, the Fifth Circuit Court of Appeals has held that, in a case heard by a judge without a jury, a judge may be warranted in drawing inferences "without resort to the expense of trial" and "may grant summary judgment if trial would not enhance its ability to draw inferences and conclusions," if there are "no issues of witness credibility" and "a trial on the merits would reveal no additional data."⁷¹

In sum, summary disposition may be a useful device to eliminate the need for the time and cost of a hearing if the truth on a contested issue is clear and there is no genuine issue on

⁷⁰ *Banks v. District of Columbia*, 377 F. Supp. 2d 85, 89 (D.D.C. 2005) (citations omitted); *see also More v. Snow*, 480 F. Supp. 2d 257, 274 (D.D.C. 2007); *Mobley v. Continental Casualty*, 405 F. Supp. 2d 42, 47 (D.D.C. 2005); *San Carlos Apache Tribe v. United States*, 272 F. Supp. 2d 860, 880 (D.Ariz. 2003).

⁷¹ *Nunez v. Superior Oil Co.*, 572 F.2d 1119, 1123-24 (5th Cir. 1978); *see also Houston North Hospital Properties v. Telco Leasing, Inc.*, 680 F.2d 19, 22 (5th Cir. 1982). Additionally, the First Circuit has held that, where parties cross-move for summary disposition on stipulated facts and have in effect submitted their case "as a case stated," in a nonjury case a "district court is freed from the usual constraints that attend the adjudication of summary judgment motions." *Reich v. John Alden Life Ins. Co.*, 126 F.3d 1, 6 (1st Cir. 1997) (citations omitted); *see also United Paperworkers Int'l. Union, Local 14, AFL-CIO-CLC v. Int'l Paper Co.*, 64 F.3d 28, 31 (1st Cir. 1995). The Sixth Circuit has recognized the same principle, quoting Wright's Federal Practice and Procedure for the statement that this "procedure amounts to a trial of the action and technically is not a disposition by summary judgment," which it deemed appropriate only "if it is clear that there is nothing else to be offered by the parties and there is no prejudice in proceeding in this fashion." *B.F. Goodrich Co. v. U. S. Filter Corp.*, 245 F.3d 587, 593 n.3 (6th Cir. 2001) (quoting 10A Wright at § 2720).

any material fact,⁷² but “if there is doubt as to whether the parties should be required to proceed further, [a motion for summary disposition] should be denied.”⁷³

E. Licensing Board Ruling on Motion for Summary Disposition of Contention 1

Because we find that there are “genuine issues of material fact” that have been controverted by Intervenors with regard to Contention 1, we deny Entergy’s motion for summary disposition of this contention. In rendering this ruling, however, we do not accept material portions of the Intervenors’ characterizations of the matters at issue.

We find there is a genuine dispute on the central and material issue of whether those Pilgrim aging management programs, or AMPs, that relate to relevant buried pipes and tanks are adequate on their own, without need of any leak detection devices (Intervenors propose monitoring wells), to assure that the pipes and tanks in question will perform their intended functions and thereby protect public health and safety. Although Contention 1 as we admitted it does not utilize this specific wording — referring instead to whether Pilgrim’s broad, overall aging management program is “inadequate with regard to aging management of buried pipes and tanks that contain radioactively contaminated water, because it does not provide for monitoring wells that would detect leakage” — it implicitly addresses the adequacy of the AMPs to assure that the pipes and tanks perform as intended to perform.

In considering the parties’ arguments, we note their differing perspectives in some significant respects. Entergy argues that the *only* purpose of the AMPs is to maintain the pressure boundaries of relevant pipes and tanks so that they can perform as intended; and that

⁷² See, e.g., *Poller v. Columbia Broadcasting Sys., Inc.*, 368 U.S. 464, 467 (1962); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 384 (2001); *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-99-23, 49 NRC 485, 491 (1999); *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1, 2 and 3), LBP-73-29, 6 AEC 682, 688 (1973).

⁷³ *Duke Cogema*, LBP-05-4, 61 NRC at 79 (citing *Gen. Elec. Co.* (GE Morris Operation Spent Fuel Storage Facility), LBP-82-14, 15 NRC 530, 532 (1982)).

operating experience both at Pilgrim and at other plants shows that the various programs — involving coatings, inspections, water chemistry, etc. — are sufficient to assure the maintenance of such pressure boundaries.⁷⁴ Intervenors, on the other hand, in addition to suggesting that another purpose of the AMPs is to prevent leaks and controverting the proposition that the AMPs on their own will assure the components do not leak and do perform as intended, discuss how leaks could “harm public health”⁷⁵ and the environment,⁷⁶ which Entergy contends is not relevant to aging and therefore should not be permitted to be litigated.⁷⁷

It is evident that some clarification is in order. To begin with, we note that prevention of leaks *per se* is not a stated objective of any relevant aging management program. On the other hand, prevention of an aging-induced leak large enough to compromise the ability of buried piping or tanks to fulfill their intended safety function is indeed a clear goal of an AMP. Thus, at issue here is the following fundamental question: Do the AMPs for buried pipes and tanks, by themselves, ensure that such safety-function-challenging leaks will not occur, or must some sort of leak detection devices such as the monitoring wells proposed by Intervenors be installed to meet that obligation?

We note in this regard that some AMPs involve measures to prevent and detect corrosion, which, if not prevented and/or timely detected, will result in leakage. Thus, while leak prevention is not a stated objective, it is an implicit element of those AMPs. At this point, leak detection is not, however, an AMP element. Contention 1 involves the challenge that leak detection is a necessary AMP element to ensure continuing safety function performance.

⁷⁴ See, e.g., Entergy Motion at 4, 8–9, 12, 15.

⁷⁵ See, e.g., Pilgrim Watch Answer at 7.

⁷⁶ See *supra* n.54.

⁷⁷ See, e.g., Entergy Motion at 16-17.

Whether this is or is not the case is the matter in dispute, involving experts who disagree. The pertinent issue in dispute⁷⁸ is whether leak detection via a system of monitoring wells is necessary as part of Pilgrim’s aging management program to ensure that relevant components perform their intended functions during the license renewal period.⁷⁹ Thus, the only issue remaining before this Licensing Board regarding Contention 1 is whether or not monitoring wells are necessary to assure that the buried pipes and tanks at issue will continue to perform their safety function during the license renewal period — or, put another way, whether Pilgrim’s existing AMPs have elements that provide appropriate assurance as required under relevant NRC regulations that the buried pipes and tanks will not develop leaks so great as to cause those pipes and tanks to be unable to perform their intended safety functions.

For clarity, we also note that the following matters are not in dispute:

(a) Our statement in ruling on the admissibility of Contention 1, that (while doses not in violation of NRC regulations could not be litigated) issues relating to doses in violation of NRC regulations “may be litigated,”⁸⁰ should not be interpreted to mean that we see any relevant, litigable dispute at this point regarding any health effects of leaking radioactive liquid.⁸¹

⁷⁸ Also in dispute is the ancillary matter of whether the SSW system and offgas system piping may contain radioactive liquid and should therefore be considered vis-à-vis proposed safety-function-failure leak detection.

⁷⁹ A system of monitoring wells, appropriately placed taking into account actual geological conditions and locations of relevant components that could contain radioactive liquid, might well, by detecting leaks, allow for earlier and/or more effective detection and correction of any problems that might compromise the intended functions of relevant components.

⁸⁰ *Pilgrim*, LBP-06-23, 64 NRC at 315.

⁸¹ It goes without saying that detection of leaks would indeed protect the public health — whether by assuring that components perform intended functions, by otherwise preventing doses to the public in violation of NRC regulations, and/or by any other means. But issues concerned with monitoring of radiological releases, or determinations of how leakage could harm health or the environment, are not legitimately in dispute here, because they do not relate to aging and/or because they are addressed as part of ongoing regulatory processes. See, e.g., *Pilgrim*, LBP-06-23, 64 NRC at 275-77.

(b) Also not in dispute is any leakage from the spent fuel pool.

(c) Similarly, leakage events at other plants are not directly relevant to the issue at hand. While these events may provide relevant information regarding the potential usefulness of monitoring wells in detecting leaks, what is relevant, as Pilgrim Watch appears to agree,⁸² is the uniqueness of the Pilgrim plant and what may be required with regard to it.

Based on the preceding analysis, we DENY Entergy's Motion for Summary Disposition of Pilgrim Watch Contention 1, and will allow litigation of the matters at issue regarding the contention as clarified above, to the extent that it is not otherwise resolved by agreement between the parties.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

/RA/
Ann Marshall Young, Chair
ADMINISTRATIVE JUDGE

/RA/
Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

/RA/
Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 17, 2007⁸³

⁸² See Pilgrim Watch Answer at 33.

⁸³ Copies of this Memorandum and Order were sent this date by Internet e-mail transmission to all counsel or representatives for parties..

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
ENERGY NUCLEAR GENERATION CO.)
AND)
ENERGY NUCLEAR OPERATIONS, INC.)
)
)
(Pilgrim Nuclear Power Station))

Docket No. 50-293-LR

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (RULING ON ENERGENCY'S MOTION FOR SUMMARY DISPOSITION OF PILGRIM WATCH CONTENTION 1, REGARDING ADEQUACY OF AGING MANAGEMENT PROGRAM FOR BURIED PIPES AND TANKS AND POTENTIAL NEED FOR MONITORING WELLS TO SUPPLEMENT PROGRAM) (LBP-07-12) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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Docket No. 50-293-LR
LB MEMORANDUM AND ORDER (RULING ON ENTERGY'S MOTION FOR SUMMARY
DISPOSITION OF PILGRIM WATCH CONTENTION 1, REGARDING ADEQUACY OF
AGING MANAGEMENT PROGRAM FOR BURIED PIPES AND TANKS AND POTENTIAL
NEED FOR MONITORING WELLS TO SUPPLEMENT PROGRAM) (LBP-07-12)

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Office of the Secretary of the Commission

Dated at Rockville, Maryland
this 17th day of October 2007