

BRIAN SANDOVAL  
*Governor*

STATE OF NEVADA

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*Executive Director*



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August 13, 2018

Assemblyman Edgar Flores, Chair  
Legislative Committee on High-Level  
Radioactive Waste  
Legislative Building  
Capitol Complex  
Carson City, Nevada 89710

Dear Assemblyman Flores:

Enclosed is the Agency for Nuclear Projects' semi-annual report for the period January 1, 2018 – June 30, 2018. Should you have questions regarding the report or if you would like additional information, please let me know.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert J. Halstead".

Robert J. Halstead  
Executive Director

RRL/cs  
Enclosure

cc Richard Bryan, Chairman, Nevada Commission on Nuclear Projects  
Jann Stinnesbeck, LCB



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**REPORT TO THE NEVADA STATE LEGISLATURE'S  
COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE**  
*January 1, 2018 – June 30, 2018*

**1.0 MISSION STATEMENT**

The mission of the Nevada Agency for Nuclear Projects (Agency) is to assure that the health, safety, and welfare of Nevada's citizens and the State's unique environment and economy are adequately protected with regard to any federal high-level nuclear waste and related activities in the state.

**2.0 STATUTORY AUTHORITY – AGENCY FOR NUCLEAR PROJECTS**

Statutory authority for the Agency for Nuclear Projects is contained in NRS 459.009 - NRS 459.0098. The Agency carries out duties and responsibilities provided for the State of Nevada in the federal Nuclear Waste Policy Act of 1982, as amended (PL 97-425).

**3.0 ORGANIZATION AND FUNCTIONS**

The Agency consists of the Division of Technical Programs and the Division of Planning. A seven-member Commission on Nuclear Projects advises the Governor and Legislature on nuclear wastes matters and oversees Agency activities.

The Agency oversees the federal high-level radioactive waste program and the proposed Yucca Mountain nuclear waste repository project; participates in U.S. Nuclear Regulatory Commission (NRC) licensing activities and proceedings with respect to the proposed Yucca Mountain project; carries out independent technical, impact assessment and other studies; participates in activities related to implementing recommendations of the Blue Ribbon Commission (BRC) on America's Nuclear Future<sup>1</sup> aimed at finding alternatives to the Yucca Mountain project; works with and coordinates activities of state agencies on matters relating to radioactive waste and radioactive waste transportation; represents Nevada on regional organizations dealing with nuclear waste and

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<sup>1</sup> The BRC recommended that future nuclear facility siting be done using a "consent-based," voluntary approach. The final BRC report was released in January 2012 and is available on the web at: [http://www.brc.gov/sites/default/files/documents/brc\\_finalreport\\_jan2012.pdf](http://www.brc.gov/sites/default/files/documents/brc_finalreport_jan2012.pdf).

nuclear waste transportation matters; and provides information to the Governor, Attorney General, Legislature, local governments and tribes, the Commission on Nuclear Projects, the public, and interested parties.

## **4.0 OVERVIEW**

While Congress has yet to appropriate new federal funds for NRC's Yucca Mountain licensing activities, the Agency expects there will be renewed federal funding for licensing by the first part of 2019. Consequently, work during the reporting period included continued preparations for the expected resumption of the NRC's Yucca Mountain licensing adjudicatory hearings,<sup>2</sup> monitoring congressional activity related to possible legislation to restart the Yucca Mountain project and provide for interim storage facilities for spent nuclear fuel (SNF), and working cooperatively with other western states through the Western Interstate Energy Board's (WIEB) High-Level Radioactive Waste Committee to provide input on DOE's plans for developing a national high-level waste (HLW) transportation system to serve future interim storage and disposal sites.

### **4.1 Legislation at the Federal Level**

Since the NRC's licensing process was ordered restarted in 2013, several bills have been introduced in Congress aimed at restarting the federal high-level radioactive waste program and implementing key provisions contained in the BRC recommendations.<sup>3</sup> To date none has been enacted into law.

In the U.S. House of Representatives, H.R. 3053, introduced by Rep. John Shimkus (R-IL), would amend the Nuclear Waste Policy Act to expedite action on Yucca Mountain, in particular by transferring federal lands at the Yucca Mountain site to DOE. H.R. 3053 would restart the forced siting of a high-level nuclear waste repository at Yucca Mountain, following the primary provision of the Nuclear Waste Policy Amendments Act (NWPAA) of 1987 [42 U.S.C. 10172], which designated Yucca Mountain as the only candidate site to be studied for a geologic repository.

On May 10, 2018, the House passed H.R. 3053, by a vote of 340-72. Nevada's four House Members voted against passage. An amendment sponsored by Rep. Dina Titus [D-NV-1], to strike the language of H.R. 3053 and insert language establishing a consent-based siting process for determining a permanent nuclear waste repository, was defeated on a recorded vote of 80-332. On May 14, 2018, H.R.3053 was received in the Senate, read twice, and referred to the Committee on Environment and Public Works. No further actions have yet been scheduled. (See Attachment II for a detailed analysis of and comment on H.R. 3053.)

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<sup>2</sup> In 2013, the U.S. Circuit Court of Appeals for the District of Columbia ordered NRC to restart the suspended Yucca Mountain licensing proceeding using available carry-over appropriated funds, even though the court acknowledged that those funds were insufficient to complete the proceeding. The full Commission responded by directing NRC staff to complete work on the five volume Safety Evaluation Report, to prepare the required Environmental Impact Statement Supplement, and to reinstitute a publically accessible database containing materials necessary for the licensing proceeding.

<sup>3</sup> Legislative efforts to implement the BRC recommendations are examined in R.J. Halstead, A. Mushkatel, and K. Thomas, "Remaking the U.S. Nuclear Waste Program: A Window of Opportunity for Change?" Waste Management 2015, Proceedings of the Conference, Phoenix, AZ (March 15-19, 2015), available at [http://www.state.nv.us/nucwaste/news2016/pdf/WM2015\\_RemakingWasteProgram.pdf](http://www.state.nv.us/nucwaste/news2016/pdf/WM2015_RemakingWasteProgram.pdf)

In the U.S. Senate, the most comprehensive approach so far was that proposed in S.854, the Nuclear Waste Administration Act of 2015. (See <https://www.congress.gov/bill/114th-congress/senate-bill/854/>) S.854 was introduced in March 2015 by Senator Lamar Alexander (R-TN), with co-sponsors Senators Lisa Murkowski (R-AK), Dianne Feinstein (D-CA), and Maria Cantwell (D-WA).<sup>4</sup> S.854 was referred to the Senate Committee on Energy and Natural Resources, where no further action was taken. Under the Senate bill as it was introduced in 2015, the development of temporary storage sites and a permanent repository would go forward hand in hand. Additionally, the bill called for "consent-based siting," meaning that waste facilities would only be located in states that are willing to accept them. New legislation based on S. 854 was expected to be introduced in the current Congress by Sens. Lamar Alexander (R-Tenn.), Lisa Murkowski (R-Alaska), Maria Cantwell (D-Wash.) and Dianne Feinstein (D-Calif.). That bill was expected to incorporate many of the provisions of S.854 and would set up a pilot program for an interim nuclear waste storage facility, an approach that has been floated as a temporary alternative to Yucca Mountain. It now appears that the Senate will not act on new authorizing legislation before 2019.

To be acceptable to Nevada, any new legislation would need to apply the requirement for a written consent agreement to the State of Nevada and to the Yucca Mountain project. In January 2017, Nevada Senators Dean Heller and Catherine Cortez Masto introduced S. 95, The Nuclear Waste Informed Consent Act, in the U.S. Senate, to extend consent to Nevada (see <https://www.congress.gov/bill/115th-congress/senate-bill/95/>). Nevada Representatives Dina Titus, Ruben Kihuen, and Jacky Rosen introduced the same legislation as H.R. 456 in the U.S. House of Representatives (see <https://www.congress.gov/bill/115th-congress/house-bill/456/>).

These bills would require a binding written consent agreement with the host state governor, affected units of local government (including contiguous counties impacted by transportation), and any affected Indian tribe before the Secretary of Energy made any expenditures from the Nuclear Waste Fund for construction and operation of a geologic repository.<sup>5</sup>

So far, Congress has failed to pass any appropriation measure that provides new funding for either NRC's or DOE's Yucca Mountain activities for FY 2019, which begins October 1, 2018. The continuing resolutions that have funded government agencies for the past few years, including FY 2018, have all failed to include any new federal nuclear waste funds. It remains unclear whether Congress will provide any new funds for the NRC's licensing proceeding and DOE's Yucca

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<sup>4</sup>S.854, like S.1240 (2013), has its origin in a bill introduced in August 2012 by the retiring U.S. Senator from New Mexico, Jeff Bingaman, with the goal of starting a discussion on the BRC report. Bingaman's bill, S.3469 (2012) died in committee. In April 2013, the Committee on Energy and Natural Resources issued a "discussion draft" of legislation "intended to implement the recommendations" of the BRC. Over the next month, the Committee received more than 2,500 public comments on the discussion draft bill. In June 2013, S.1240 was introduced and referred back to the Committee. S.1240 represented the collaborative work of the Committee's Chairman (Ron Wyden, D-OR) and Ranking Member (Lisa Murkowski, R-AK) and the Chairman (Dianne Feinstein, D-CA) and Ranking Member (Lamar Alexander, R-TN) of the Senate Appropriations Subcommittee on Energy and Water Development. It was originally scheduled for amendments and debate in early 2014.

<sup>5</sup> An earlier approach was taken in March 2015, when Sen. Harry Reid (D-NV) and Sen. Dean Heller (R-NV) introduced the Nuclear Waste Informed Consent Act (S.691). Rep. Dina Titus (D-NV) and Rep. Joe Heck (R-NV) introduced an identical bill (H.R. 1364) in the House of Representatives. These bills would require a binding written consent agreement with the host state governor, affected units of local government (including contiguous counties impacted by transportation), and any affected Indian tribe before the NRC authorized construction of any repository. This would allow the repository consent agreement to be informed by completion of the safety evaluations required by NRC regulations and by the environmental evaluations required under NEPA. This timing change for the required agreement would extend consent to Nevada regarding the proposed Yucca Mountain repository.

Mountain activities. At the beginning of FY 2018 (October 1, 2017), DOE had about \$25 million in carry-forward funds from previous fiscal years, which could be used for Yucca Mountain activities without further appropriation. DOE has not reported its expenditures since October 2017. As of May 2018, the NRC had about \$500,000 remaining in funds appropriated in prior years, available for Yucca Mountain activities.

## **5.0 SUMMARY OF AGENCY ACTIVITIES**

The Agency's activities during the reporting period involved intensified efforts to prepare for the resumption of the licensing process and anticipating the requirements for the restart of the NRC's adjudicatory hearings.

### **5.1 Technical Division Activities**

The Agency's Technical Division continued during the reporting period to undertake work related to the anticipated resumption of the NRC's Yucca Mountain licensing proceeding.

#### **5.1.1 Licensing Activities**

During the reporting period, a significant amount of Technical Division efforts were directed at assessing the utility and accessibility of the NRC's proposed replacement for the Licensing Support Network (LSN), the web-based, publically accessible database needed to support the licensing process and house the millions of pages of documents and other materials parties to the licensing proceeding rely on and must have ready access to.

Following the suspension of the licensing proceeding in 2010, NRC directed, as a cost cutting measure, that the LSN be discontinued and that documents be retained in electronic form by NRC staff. However, none of the documents maintained by staff were accessible to licensing participants or the public. NRC has since directed staff to incorporate LSN documents into NRC's regular document system, the Agency Document Access Management System (ADAMS). Over the past year, the majority of the NRC's LSN document collection has been made available on ADAMS. Technical Division staff and the AG's licensing attorneys continued to evaluate the suitability of the ADAMS system as the database support system for licensing, including the implementation of test protocols to ascertain the search capabilities of the ADAMS system and assess its overall adequacy for the highly specialized applications required for licensing.

The Agency has obtained in electronic format all of DOE's licensing documents that were part of the defunct LSN database. Software and IT capabilities needed for accessing licensing-related documents and materials are separately being maintained by the Agency in the event that the ADAMS database cannot function as an acceptable substitute for the LSN. However, developing the software and search capabilities for the Agency's own database would be an extremely costly undertaking, and is not the preferred course of action.

Technical Division work related to the Yucca Mountain licensing proceeding is carried out in close collaboration with the Attorney General's Office and the AG's legal/licensing team. The Agency maintains a web page that is updated every business day, containing pertinent licensing materials, petitions, orders, etc. This web page can be found at: <http://www.state.nv.us/nucwaste/licensing.htm> .

#### *5.1.2 Interactions*

Agency personnel and contractors attended or participated in meetings, teleconferences, webinars, etc. sponsored by DOE, NRC, the US Nuclear Waste Technical Review Board, regional organizations of states and tribes, and nuclear industry groups addressing various aspects of the federal high-level radioactive waste program.

#### *5.1.3 Independent Studies*

Agency technical experts continued to undertake research in areas needed to support existing contentions admitted before the NRC's licensing boards and for developing new contentions that would be filed when and if the Yucca Mountain licensing proceeding is restarted. Work included:

- Ongoing studies designed to further the understanding of the potential for renewed volcanic activity in the vicinity of Yucca Mountain during the lifetime of a repository;
- Studies of the potential for corrosion of waste disposal containers in the subsurface environment of Yucca Mountain;
- New research being designed to model and analyze how water flows through the highly fractured subsurface environment of Yucca Mountain and served as a mechanism for transporting future releases of radioactive materials to the accessible environment;
- Work on the development of new contentions calling into question the disposal canisters used in the performance calculations contained in the license application, using new information on industry dry storage practices over the past 10 or more years that have made the use of TAD canisters infeasible.
- Other areas of study are being scrutinized for possible new contention based on new information that was not available when the licensing proceeding was suspended in 2010.

#### *5.1.4 Quality Assurance (QA) Oversight*

All QA audits and related activities have ceased at this time because DOE is no longer conducting site characterization work at Yucca Mountain and has terminated all activities at the site.

#### *5.1.5 On-site Monitoring*

No on-site monitoring activities occurred during the period because the Yucca Mountain site continues to be been shut down, and no DOE site activities have occurred.



## 5.2 *Planning Division Activities*

With the prospect for significantly intensified Yucca Mountain licensing activities on the horizon, the Agency's Division of Planning anticipates a substantial increase in workload to prepare for licensing hearings, support the Agency's transportation and National Environmental Policy Act (NEPA) contentions pending before the NRC Yucca Mountain licensing board, and developing and supporting new contentions that will need to be submitted upon resumption of the NRC proceeding. Importantly, the Agency is in the process of reestablishing the position of Planning Division Administrator, which was left unfilled during the FY 2010 – 2011 biennium following the retirement of the staff person filling that position, when it appeared that the federal government was prepared to terminate the Yucca Mountain program. With the apparent resurrection of the Yucca project and the imminent resumption of the licensing proceeding, re-instituting the Planning Division Administrator position is a priority for the Agency during the first quarter of FY 2019.

### 5.2.1 *Transportation and NEPA Licensing Contentions*

Work continued on studies and activities in support of the Nevada's 21 transportation and environmental (i.e., National Environmental Policy Act – NEPA) contentions in the NRC's Yucca Mountain licensing proceeding and for preparing expert witnesses needed for the various contentions. Work during the reporting period included the following:

- Assessing the radiological characteristics of spent nuclear fuel within shipping containers and impacts during transportation;
- Preparing information and materials regarding the impacts of rail and truck shipments of SNF and HLW;
- Reexamining DOE's 2002 Final Yucca Mountain Environmental Impact Statement (FEIS) and 2008 Final Supplemental Yucca Mountain Environmental Impact Statement (FSEIS) with regard to baseline radiological characteristics of SNF within shipping containers;
- Assessing impacts early nuclear reactor retirements could have for Nevada's transportation and NEPA contentions in the licensing proceeding;
- Assessing the impacts of developments regarding new reactor designs and related fuel cycle technologies for Nevada's transportation and NEPA contentions in the licensing proceeding;
- Updating information on local governments and tribal organization impacted by likely SNF and HLW shipping routes to Yucca Mountain.

### 5.2.2 *Preparations and oversight for transuranic waste shipments within Nevada*

During the reporting period, the Agency continued to work coordinate activities of other Nevada state agencies in preparation for future transuranic waste shipments originating in northern California via Interstate 80 through northern Nevada.<sup>6</sup> This program that has been ongoing in

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<sup>6</sup> This project is funded by – and operated in close cooperation with – the Western Governors Association (WGA). The funds received by Nevada from WGA are part of a larger, regional program whereby WGA receives funds from DOE to implement a comprehensive regional program aimed at preparing states and local communities for transuranic waste shipments through their jurisdictions and assuring that such

Nevada since 2000 and has resulted in the safe transportation of transuranic waste formerly stored at NNSS to both the Waste Isolation Pilot Plant (WIPP)<sup>7</sup> facility in New Mexico and to the Idaho National Laboratory (INL). DOE plans to resume shipments from generator sites in northern California as early as the second half of 2019.

In June, 2018, the Agency, in collaboration with the Nevada Division of Emergency Management (NDEM), the Nevada Highway Patrol (NHP), the state's Radiation Control Program (within the Division of Public and Behavioral Health), and DOE's WIPP program personnel, conducted a week-long demonstration shipment along Interstate 80 to simulate a future shipment of transuranic (TRU) waste along the route. This demonstration shipment did NOT involve the actual transport of TRU waste or other radioactive materials, but rather featured a mock shipment that included an empty TRU waste shipping cask and transport vehicle. The purpose of the demonstration shipment was to familiarize state and local emergency management, response, and public safety personnel with the operational, procedural, and equipment characteristics of an actual waste shipment and afford response and public safety personnel along the route the opportunity for hands-on experience with an actual WIPP transport vehicle and shipping canister. The shipment included stops in the Reno-Sparks metro area, Winnemucca, Elko, and West Wendover that involved drills, hands-on demonstrations, and familiarization opportunities for local emergency response and public safety officials.

The Agency's WIPP transuranic waste shipping program activities are carried out using funds made available by an agreement between the Agency and the Western Governors Association as part of a western region-wide WIPP Transportation Program.

### *5.2.3 Information Provision and Coordination*

One of the Agency's (and Planning Division's) responsibilities as specified in statute is to "disseminate information to the State, interested political subdivisions of the State or any agency of either, and members of the public regarding radioactive waste." To do this, the Agency maintains a comprehensive website containing information on Yucca Mountain, the NRC licensing process and related information, nuclear issues in general, and links to other relevant information sources. Over the years, the web page has proven to be a cost-effective and useful way to readily provide information to a wide audience. The web page is available at: <http://www.state.nv.us/nucwaste/>.

In anticipation of renewed federal agencies' Yucca Mountain activities and the restart of the NRC's licensing process, the Agency is preparing to augment its public information work by enhancing capabilities of web-based platforms and social media capabilities for informational materials, searches, and other resources that further the Agency's responsibilities for effectively informing

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shipments are implemented in a safe and routine manner. Working with the states, WGA has developed a system of transportation protocols that cover all aspects of the transuranic waste shipping campaign. WGA passes funds on to affected states to implement the transportation program.

<sup>7</sup> WIPP, located in Carlsbad, NM, is a repository for disposal of defense transuranic waste. Transuranic waste is essentially lower-level radioactive and mixed hazardous/radioactive waste that has been contaminated with low levels of plutonium or other very long-lived radioisotopes that require long-term isolation from the environment.



the state, local entities, the public and interested parties and organizations about the Yucca Mountain program and its implications.

The Agency continues to maintain a database of reports, information, and materials supporting the state's NRC licensing contentions and licensing intervention activities in anticipation of the possible resumption of the adjudicatory hearings. That database consists of almost 6,000 documents comprised of close to 200,000 pages. The Agency has also acquired the electronic version of DOE's entire LSN<sup>8</sup> data collection, comprising several million pages of documentary materials so as to be prepared for any resumption of licensing in the future. In the event NRC does not or cannot re-establish a functional, accessible database for all parties' licensing materials, the Agency has plans to acquire the capability to convert this extensive DOE database into a more readily searchable format and identify how best to provide useful access to this information.

## **6.0 DESCRIPTION OF THE AGENCY'S CONTRACTS DURING THE PERIOD**

A description of all contracts in place during the reporting period is included as Attachment I of this report.

## **7.0 STATUS OF ANY LITIGATION RELATING TO THE MISSION OF THE AGENCY AND TO WHICH THE STATE OF NEVADA IS A PARTY (January 1, 2018 – June 30, 2018)**

FEDERAL DISTRICT COURT IN NEVADA, U.S. COURTS OF APPEALS,  
AND STATE DISTRICT COURT IN TONOPAH

(1) *United States v. State Engineer* (5th Judicial District Court, Nye County, No. 15722). This is the appeal filed by the United States on behalf of the U.S. Department of Energy (DOE) following the State Engineer's denial of DOE's applications for permanent water rights to construct and operate the proposed Yucca Mountain repository. This case was filed as a protective measure while the United States pursues its constitutional claims in the main water litigation in federal court (See below). The case remains pending.

(2) *United States v. State of Nevada* (U.S. District Court, No. CV-S-00-0268-DWH-LRL). This case is the United States' challenge of the Nevada State Engineer's decision determining that the United States Department of Energy (DOE) is not entitled to permanent water rights to construct and operate the proposed repository based on the State Engineer's finding that the proposed use threatens to be detrimental to the public interest. DOE has curtailed its minimal water use and in 2009, publically announced that the proposed Yucca Mountain High-Level Nuclear Waste repository is unworkable. Due largely to efforts by U.S. Senator Harry Reid, funding for Yucca Mountain has been blocked. Although the Trump Administration has signaled a desire to restart

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<sup>8</sup> The NRC's Licensing Support Network (LSN) was a comprehensive, web-based database containing several million pages of documentary material from all parties to the Yucca Mountain licensing proceeding. When the proceeding was suspended in 2011, NRC discontinued the LSN for lack of funding, and the system remains unavailable. NRC is in the process of converting LSN documents and materials for uploading on the standard, searchable NRC database known as ADAMS (see footnote 2 above). Discussion involving parties to the licensing proceeding are ongoing with regard to the acceptability and the ultimate utility of the NRC information system.

the Yucca Mountain licensing proceeding, no federal funds have yet been appropriated for that purpose. The litigation remains pending.

(3) *Nevada v. United States Environmental Protection Agency (EPA)* (U.S. Court of Appeals for the District of Columbia Circuit, No. 08-1327). Nevada filed suit on October 10, 2008 against EPA, challenging the revised EPA radiation standard for the proposed Yucca Mountain repository. Due to uncertainty at the federal level and the failure of Congress to fund the Yucca Mountain project, this litigation is being held in abeyance. In the event the adjudicatory portion of NRC licensing proceeding resumes or circumstances require, a restart of this litigation may be considered. Quarterly status reports continue to be filed with the Court.

(4) *Nevada v. United States Nuclear Regulatory Commission (NRC)* (U.S. Court of Appeals for the District of Columbia Circuit, No. 09- 1133) Nevada filed a petition for judicial review of the NRC's Licensing Rule for the proposed Yucca Mountain repository on May 8, 2009. Motions to govern procedural matters were filed August 31, 2009 and a request to the Court for tandem consideration of this case and the EPA case was filed also. Dispositive motions and the NRC index to the record were filed September 29, 2009. The case is pending. Similarly to the case above, this litigation is being held in abeyance pending resolution of whether the Yucca Mountain project will proceed and receive federal appropriations. In the event the adjudicatory portion of the NRC licensing proceeding resumes or circumstances require, a restart of this litigation may be considered. Quarterly status reports continue to be filed with the Court.

(5) *Nevada v. United States Department of Energy* (9<sup>th</sup> Circuit 09-71015). This case challenges DOE's selection of the Caliente rail corridor and currently is being held in abeyance pending congressional funding or as circumstances require.

(6) *Texas v. United States Department of Energy (DOE), et al* (5<sup>th</sup> Circuit 17-60191). Nevada intervened in this Texas litigation still in its early stages. Texas challenges DOE's "consent-based siting" effort (no longer in effect) and further claims DOE is violating the 2013 order of the United States Court of Appeals for the District of Columbia Circuit in *Aiken County v. DOE* (725 F.3d 255 (D.C. Cir.)) which ordered the U.S. Nuclear Regulatory Commission (NRC) to expend its remaining Yucca Mountain funds in furtherance of Yucca Mountain licensing despite the fact that NRC's remaining funds were insufficient to complete the effort. Because both of Texas' claims fail, the Court dismissed the case pursuant to Nevada's motion to dismiss on June 1, 2018.

## PENDING ADMINISTRATIVE PETITIONS

1. On June 29, 2010, the Atomic Safety and Licensing Board (also known as the Construction Authorization Board or "CAB") issued an Order which, among other things, denied DOE's motion to withdraw its Yucca Mountain license application. The matter was appealed to the full NRC. In September 2011, NRC formally acknowledged that it was not able to reach a decision on the appeal due to a 2-2 split among commissioners (with one member of the Commission recusing himself). The result is that the licensing board's denial of DOE's motion to withdraw the license application stands.

2. *Petition for Rulemaking with NRC (filed April 8, 2005 PRM- -51-9)*: seeks to revise NRC's standards for reviewing and litigating National Environmental Policy Act (NEPA) issues discussed in DOE's Environmental Impact Statement (EIS) for Yucca Mountain to clearly conform to the decision in *NEI v. EPA*, 373 F.3d 1251 (D.C. Cir. 2004). The petition was published for comment on August 12, 2005, and the comment period expired on October 26, 2005. No further action has been taken by NRC.

3. *Petition for Rulemaking with NRC (filed December 22, 2006 and supplemented on January 23, 2007 PRM 63-2)*: addresses the critical issue of DOE's proposed "aging pad" for commercial spent fuel at Yucca Mountain. The petition has not yet been noticed for comment in the Federal Register despite Nevada's requests that it be published. The petition is still pending.

4. *Petition for Rulemaking (filed June 19, 2007)*: Petition for rulemaking asking NRC to fill in a gap in its Rules of Practice by specifying issues for consideration in the "mandatory hearing" on the prospective Yucca Mountain construction authorization application. The petition has been docketed but no other action has been taken. The petition was noticed for public comment on August 29, 2007 and the comment period closed November 13, 2007. The matter remains pending.

**ATTACHMENT I**  
**DESCRIPTION OF AGENCY CONTRACTS**  
*January 1, 2018 – June 30, 2018*

**INTRODUCTION**

The following contracts constitute Agency for Nuclear Projects' contracts in place during the reporting period:

**DESCRIPTION OF CONTRACTS:      1/1/18 – 6/30-18**

**CONTRACTOR:**

Egan, Fitzpatrick, Malsch & Lawrence<sup>9</sup>  
12500 San Pedro Avenue, Suite 555  
San Antonio, Texas 78216

**COMPENSATION:**

Total Compensation: \$ 306,831.11

**NARRATIVE:**

This is a tripartite agreement between the Agency, the Attorney General, and the contractor whereby the contractor serves as special counsel to the State to represent the State before the Nuclear Regulatory Commission on issues related to the U.S. Department of Energy's license application for the proposed Yucca Mountain repository and in litigation arising under the Nuclear Waste Policy Act where the Attorney General and the Agency mutually agree such services are beneficial for the State.

**NEED FOR CONTRACT/CONTRIBUTION TO THE  
AGENCY'S MISSION**

This contract is essential to furthering the Agency's mission to assure that Nevada's interests are protected with regard to the federal high-level nuclear waste program. It provides for essential representation before the NRC and the NRC licensing process for a repository.

**STATUS:**

A new two-year contract was approved by the Board of Examiners in February, 2018.

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<sup>9</sup> This is a three-party contract wherein the Agency and the Office of the Attorney General jointly manage the contract and contribute toward paying expenses.

**CONTRACTOR:**

Nevada Division of Emergency Management  
Capitol Complex  
Carson City, NV 89710

**COMPENSATION:**

Total Compensation: \$ 51,709.13

**NARRATIVE:**

Contract provides for DEM review, monitoring, and assessment of emergency preparedness, public safety and other issues arising in the context of the transportation of transuranic waste from the Nevada Nuclear Security Site to the Waste Isolation Pilot Plant facility in New Mexico. Funds for this agreement are provided through a grant from the Western Governors' Association. This is an interagency agreement that is implemented by means of specific tasks/work plans.

**NEED FOR CONTRACT/CONTRIBUTION TO THE  
AGENCY'S MISSION**

The Agency is required by statute to coordinate activities with other State agencies affected by the federal HLW program. This contract provides for the participation of a key State agency that will be significantly impacted by HLW transportation should the Yucca Mountain project go forward.

**STATUS:**

This is an ongoing interagency agreement. DEM will participate in emergency response/preparedness planning and development of training needs assessments and costs estimates as funding permits.

**CONTRACTOR:**

Nevada Division of Public and Behavioral Health  
Radiation Control Program  
Capitol Complex  
Carson City, NV 89710

**COMPENSATION:**

Total Compensation: \$ 0

**NARRATIVE:**

Contract provides for the State Health Division's Radiological Health Section (Rad. Health) to plan for, train, and implement required oversight and inspection activities to meet the requirements of public health and safety with respect to the transportation of transuranic waste from the Nevada Nuclear Security Site to the Waste Isolation Pilot Plant

facility in New Mexico. Funds for this agreement are provided through a grant from the Western Governors' Association.

#### NEED FOR CONTRACT/CONTRIBUTION TO THE AGENCY'S MISSION

The objective of this contract is to provide the State of Nevada with the capability to carry out activities needed to ensure the safe and uneventful transportation of transuranic waste within Nevada on its way from NNSS to WIPP. The Agency has been designated by the Governor as the lead State agency for policy and coordination of other State agencies. Rad. Health will need to be prepared to provide carry out radiological inspections, help train and equip local and state responders, and assist with other activities related to the WIPP shipments.

#### STATUS:

This is an ongoing interagency agreement. Rad. Health will participate in preparedness planning, training, exercises, and implementation activities as funding permits.

#### CONTRACTOR:

Nevada Department of Public Safety  
Highway Patrol Division  
Capitol Complex  
Carson City, NV 89710

#### COMPENSATION:

Total Compensation: \$ 22,265.11

#### NARRATIVE:

Contract provides for NHP to plan for, train, and implement required safety activities to meet the requirements of public safety with respect to the transportation of transuranic waste from the Nevada Nuclear Security Site to the Waste Isolation Pilot Plant facility in New Mexico. Funds for this agreement are provided through a grant from the Western Governors' Association.

#### NEED FOR CONTRACT/CONTRIBUTION TO THE AGENCY'S MISSION

The objective of this contract is to provide the State of Nevada with the capability to carry out activities needed to ensure the safe and uneventful transportation of transuranic waste within Nevada on its way from NNSS to WIPP. The Agency has been designated by the Governor as the lead State agency for policy and coordination of other State agencies. NHP will need to be prepared to provide shipment escorts, serve as potential first responders for accidents, monitor real time tracking for the shipments, and carry out the vehicle aspects of point-of-origin inspections.



**STATUS:**

This is an ongoing interagency agreement. NHP will participate in preparedness planning, training, exercises, and implementation activities as funding permits.

**CONTRACTOR:**

Strolin Consulting, LLC  
177 Sussex Place  
Carson City, Nevada 89703

**COMPENSATION:**

Total Compensation: \$ 42,424.52

**NARRATIVE:**

Contract provides for services necessary for implementing the Agency's mission in light of reductions in staff and the continuing requirements for oversight of the proposed Yucca Mountain high-level nuclear waste program and the NRC licensing proceeding; for work related to the Agency's obligations with respect to transuranic and low-level radioactive waste shipments within Nevada; for work associated with the Agency's responsibilities under the Agreement-in-Principle (AIP) between the State of Nevada and the US Department of Energy/NNSA/Nevada Site Office; and for other services required for the effective operations of the Agency.

**NEED FOR CONTRACT/CONTRIBUTION TO THE  
AGENCY'S MISSION**

Due to budget reductions, it was not possible to fund the Planning Division Administrator position beginning with the FY 2010 - 2011 biennium. Strolin Consulting assists the Agency on a part-time basis to assure that important Planning Division work can continue. Contractor has unique qualifications, knowledge and experience as a result of the principal's long tenure with the Agency and intimate involvement with the Yucca Mountain program and other nuclear waste issues/activities in Nevada. The Agency is at a crucial stage with respect to Yucca Mountain program, the ongoing Nuclear Regulatory licensing proceeding, and waste transportation involving planning and oversight of spent fuel, high-level waste, low-level waste, and transuranic waste shipments affecting Nevada. Providing for the services of the contractor at this crucial time continues to be essential to the effective functioning of the Agency.

**STATUS:**

Contract runs through 12/31/18.

## CONTRACTOR

Urban Environmental Research, LLC  
2850 W. Horizon Ridge Parkway, Suite 200  
Henderson, NV 89052

## COMPENSATION:

Total Compensation: \$ 98,104.25

## NARRATIVE:

The work to be accomplished under this contract involves the implementation of studies and activities in support of important transportation contentions in the NRC's Yucca Mountain licensing proceeding and specific studies, reports, etc. addressing impacts that would be associated with the location and operation of a HLW repository at Yucca Mountain, including impacts from the transportation of spent nuclear fuel and HLW to such a facility.

## NEED FOR CONTRACT/CONTRIBUTION TO THE AGENCY'S MISSION

In July 2002, the U.S. Congress voted to uphold the decision by the Energy Department (DOE) and the President to select Yucca Mountain in southern Nevada as the potential location for the nation's first high-level nuclear waste repository. Nevada is presently challenging the project in NRC's licensing proceeding. The work under this contract involves specific and focused studies and reports by subject-matter experts in environmental and transportation area in support of contentions or challenges the State is pursuing in the context of the NRC's licensing proceeding. Other work includes maintaining/updating baseline information; monitoring selected socioeconomic impacts identified in the Agency's Yucca Mountain Impact Report that would be associated with the location and operation of a HLW repository at Yucca Mountain, including impacts from the transportation of spent nuclear fuel and HLW to such a facility in Nevada and nationally; and carrying out additional research and/or data collection that is necessary to provide support for legal cases involving certain aspects of the Yucca Mountain program and for the State's activities associated with NRC's licensing proceedings.

## STATUS:

Contract runs through 12/31/19.

**ATTACHMENT II**

**COMMENTS AND ANALYSIS – H.R. 3053  
THE NUCLEAR WASTE POLICY AMENDMENTS ACT OF 2018**

**Date: June 5, 2018**

**From: Robert Halstead, Nevada Agency for Nuclear Projects**

**To: Nevada Commission on Nuclear Projects**

**Subject: Revised Comments on H.R. 3053, Nuclear Waste Policy Amendments Act of 2018**

## **Introduction**

On May 10, 2018, the U.S. House of Representatives passed H.R. 3053, the Nuclear Waste Policy Amendments Act of 2018, by a recorded vote of 340-72.<sup>1</sup> Nevada's four House Members voted against passage. An amendment sponsored by Rep. Dina Titus [D-NV-1], to strike the language of H.R. 3053 and insert language establishing a consent-based siting process for determining a permanent nuclear waste repository, was defeated on a recorded vote of 80-332.<sup>2</sup> The list of all legislative actions is available at: <https://www.congress.gov/bill/115th-congress/house-bill/3053/all-actions?overview=closed#tabs>

On May 14, 2018, H.R.3053 was received in the Senate, read twice, and referred to the Committee on Environment and Public Works. No further actions have yet been scheduled.

## **Overview**

H.R. 3053 would restart the forced siting of a high-level nuclear waste repository at Yucca Mountain in Nevada. H.R. 3053 would continue and expedite the primary provision of the Nuclear Waste Policy Amendments Act (NWPAA) of 1987 [42 U.S.C. 10172], which designated Yucca Mountain as the only candidate site to be studied for a geologic repository. During the Subcommittee on Environment hearing on April 26, 2017, four Nevada Members of Congress testified in support of H.R. 456, the Nuclear Waste Informed Consent Act, which would extend consent to Nevada and affected local and tribal governments regarding the Yucca Mountain project. Neither the Subcommittee nor the Committee considered amending H.R. 3053 to extend this consent. In stark contrast, the Committee voted to adopt a consent-based siting process that

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<sup>1</sup> H.R. 3053, the Nuclear Waste Policy Amendments Act of 2017, was introduced by Rep. John Shimkus [R-IL-15], on June 26, 2017. The bill was amended and adopted by the House Energy and Commerce Committee, by a vote of 49 to 4, on June 28, 2017. The Congressional Budget Office (CBO) released its cost estimate on October 4, 2017. After being discharged by the House Natural Resources and Armed Services Committees, the bill was placed on the Union Calendar on October 19, 2017. The Committee Report is available at: <https://www.congress.gov/congressional-report/115th-congress/house-report/355>.

A revised version of H.R. 3053, Nuclear Waste Policy Amendments Act of 2018, was reported by the House Rules Committee (Rules Committee Print 115-69) on May 2, 2018, and is available at <https://rules.house.gov/sites/republicans.rules.house.gov/files/115-2/HR%203053/CP-115HR3053RH-COMPARED-RCP115-69.pdf> accompanied by a summary of changes at <https://rules.house.gov/sites/republicans.rules.house.gov/files/115-2/HR%203053/Changes%20in%20RCP.pdf>. The revised version included significant changes in Sections 402 and 403, making benefits agreements subject to future appropriations rather than mandatory annual allocations; in Section 504, eliminating mandatory annual allocations for certain purposes and proposing new provisions for offsetting accounts and estimated appropriations; and in new Section 608, exempting budgetary effects from congressional PAYGO scorecards.

<sup>2</sup> Two amendments were adopted by voice vote. House Amendment 579, sponsored by Rep. William Keating [D-MA-9], requires the Department of Energy (DOE) to publish a financial statements summary in its annual Nuclear Waste Fund financial statement audit. House Amendment 580, sponsored by Rep. Bradley Schneider [D-IL-10] requires a report on existing resources that could assist communities struggling with the economic impact of a nuclear plant closure and housing spent nuclear fuel and assist communities in the decommissioning process with developing economic adjustment plans.

parallels the provisions of H.R. 456, but only for consolidated interim storage facilities, referred to in the bill as “Monitored Retrievable Storage” (MRS) facilities. The bill would also direct the U.S. Nuclear Regulatory Commission (NRC) to accelerate the licensing process for Yucca Mountain.

The bill also would impact U.S. Department of Energy (DOE) operations in other states. Sec. 604 (b), which transfers certain DOE defense, demonstration, and research nuclear waste functions to the Director of the DOE Office of Civilian Radioactive Waste Management (OCRWM), could significantly impact DOE facilities and activities in Idaho, New Mexico, New York, South Carolina, Tennessee, Washington, and other states.

### **Implications for the Proposed Yucca Mountain Repository**

**H.R. 3053 changes the amount of waste that can be stored at Yucca Mountain, beginning the process of making Yucca Mountain the nation’s only high-level nuclear waste repository, a major change in policy.** This is clearly what Chairman Shimkus intended in the June 26<sup>th</sup> version of the bill. Section 203 (a)(1) completely eliminates the current 70,000 metric ton capacity limit on first repository emplacements until a second repository is in operation. The full Committee, on June 28<sup>th</sup>, retained the capacity limit on first repository emplacements by amendment in Section 202 (b), but increased it to 110,000 metric tons. If this change is permitted, it indicates that Congress could further revise upward or completely eliminate the capacity limit at any time.

Elimination of the second repository requirement would be a major change in policy. Development of a second repository is a fundamental provision of the 1982 NWPA, retained in spirit in the 1987 NWPAA. The 1987 NWPAA deferred the second repository question to a report to be submitted by the Secretary of Energy, between 2007 and 2010, on the need for a second repository. The Secretary's December 2008 report to the President and Congress, while encouraging the elimination of the capacity limit on Yucca Mountain, recommended that the deferral of a decision on a second repository be retained, pending a possible need due to uncertain future nuclear power industry conditions and waste generation.

The original intent of the second repository provision was to implement the recommendation of the March 1979 Interagency Review Group Report that multiple repositories sited on a regional basis were needed to accommodate projected waste inventories, reduce nationwide transportation impacts, foster regional equity, and provide redundancy that would prevent paralysis of the waste management system in the event of unexpected shutdown of the first repository.

**H.R. 3053 would eliminate the prohibition on the location of a monitored retrievable storage facility in Nevada.** Sec. 202 (b) would eliminate a major provision of the 1987 NWPAA that was intended to protect Nevada's interests. Governor Sandoval has previously notified the Committee and DOE that the State of Nevada is opposed to any siting of an interim storage facility in Nevada. If this provision were enacted, the State is concerned that spent nuclear fuel

and high-level radioactive waste could be shipped to Nevada for surface storage and then abandoned, without the construction of a permanent geologic repository.

**H.R. 3053 would accelerate the NRC licensing process for DOE's Yucca Mountain repository application by providing certain land and water rights to DOE and by expediting the NRC licensing proceeding and changing the licensing procedures.** The NRC staff's Safety Evaluation Report for Yucca Mountain (NUREG-1949, Vol. 5), was published in January 2015, and concluded that a construction authorization (CA) could not be issued because the regulatory requirements regarding ownership and control of the land where the repository would be located and certain water rights requirements had not been met. H.R. 3053 is intended to resolve these land and water issues.

Sec. 201 would expedite the transfer of federal land interests to DOE from other agencies to give DOE full control of the Yucca Mountain site. Nine of the bill's 50 pages relate to land acquisition in one way or another. However, the provisions of H.R. 3053 originally intended to exempt DOE from State of Nevada water laws and air quality permitting requirements were deleted by the manager's amendment on June 28, 2017. The deletion of the original water and air provisions appeared to pass the full Committee by a unanimous voice vote.

Sec. 202 (b) would impose a new deadline requiring NRC to approve or disapprove DOE's Yucca Mountain application for a construction authorization within 30 months of enactment (but appears to retain the current provision allowing NRC to request a one year extension). Other provisions in Sec. 202 (b) are generally intended to expedite NRC consideration of future DOE license amendments, related infrastructure activities, environmental analyses, and off-site connected actions.

Sec. 601 invites federal agency review of repository regulatory requirements that, while not clearly intended to apply to the Yucca Mountain construction authorization, could still impact the later stages of the licensing proceeding. On one hand, Sec. 601 (b) confirms that the site-specific Environmental Protection Agency (EPA) radiation protection standard for Yucca Mountain, mandated by the Energy Policy Act of 1992, is the effective standard for a licensing decision by NRC on the Yucca Mountain application for construction authorization. Yet Sec. 601 (a) would invite the Administrator of the EPA to change the repository radiation protection standards (40 CFR 197) after NRC construction authorization but before NRC final licensing approval for waste receipt and emplacement and would invite NRC to change the repository technical requirements and criteria (multiple barriers, retrieval, monitoring, closure, etc.) before NRC final licensing of Yucca Mountain. This could create a situation in which a future Congress could repeal the site-specific standard requirement for Yucca Mountain, and EPA and NRC could promulgate amended or revised rules for deciding on a license amendment, following construction authorization, if new information obtained during construction of Yucca Mountain places compliance in doubt. It could also conceivably result in the elimination of requirements for installation of engineered barriers, such as the very expensive titanium drip shields.



## **Implications for Transportation Routes through Las Vegas (Title II, Sec. 206)**

DOE's 2008 Final Supplemental Environmental Impact Statement (EIS) for Yucca Mountain proposes a transportation plan that would result in weekly shipments of spent nuclear fuel and high-level radioactive waste through Las Vegas for 50 years or more. H.R. 3053 entrusts selection of routes to avoid Las Vegas to DOE, the same agency that after 20 years of transportation studies, selected a preferred rail route, the Caliente rail alignment that would use the Union Pacific Railroad mainline through downtown Las Vegas, in close proximity to the world-famous Las Vegas Strip. The DOE transportation plan also includes highway routes to Yucca Mountain that would use the heavily traveled Las Vegas Beltway (I-215) for thousands of truck shipments.

The bill does not require DOE to select routes to avoid Las Vegas; it says DOE "should consider" such routes "to the extent practicable." There is no evidence in past DOE transportation studies that DOE considers avoiding Las Vegas either practicable or practical. If avoiding Las Vegas was easy, DOE would likely have already selected routes that would avoid Las Vegas.<sup>3</sup>

The bill has no enforcement mechanism for transportation routing decisions, other than the statement "It is the sense of the Congress that" DOE should do something, and the threshold definition of that something is that DOE "should consider" such routes. The relevant case law on previous enactments of similar statutory language indicates the bill's "should consider" language to DOE only means that DOE should consider avoiding Las Vegas. It would not require DOE to actually select routes that would avoid Las Vegas.

The authors of the bill could have included language that would specifically prohibit DOE from shipping spent nuclear fuel and high-level radioactive waste through Las Vegas. The authors chose not to do so. As presently worded, Sec. 206 would not prohibit DOE shipments to Yucca Mountain through Las Vegas.

## **Implications for Host State Benefits Agreements (Title IV)**

The bill ignores Nevada's position, stated by Gov. Sandoval in a letter to Chairman Shimkus on April 21, 2017: "No amount of monetary benefits can compensate for the coerced selection of an unsafe site."

As reported by the Rules Committee, the original provisions for benefits agreement with the State of Nevada (Section 402) and affected local governments in Nevada (Section 403) are significantly changed. Fixed dollar amounts, subject to future appropriations, are now substituted

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<sup>3</sup> The separate matter of DOE voluntarily agreeing to use highway routes that avoid Las Vegas for truck shipments of low-level radioactive waste to the Nevada National Security Site was raised during the Subcommittee on Environment hearing on July 7, 2016, in a question and answer exchange between Chairman Shimkus and Nevada State Senator Joe Hardy. DOE has agreed to abide by this extra-regulatory arrangement for more than a decade, but ensuring that DOE contract carriers avoid Las Vegas has required constant vigilance both by DOE and the State of Nevada.

for the annual mandatory percentage allocations provided in the previous version of Title V. The bill now promises the State of Nevada \$15 million per year before waste receipts, a one-time payment of \$400 million upon first receipt, and \$40 million annually thereafter. No guarantees or enforcement mechanisms are provided for these promised benefits payments or the promised preferences regarding future federal projects, education grants, and contracts.

The Rules Committee proposed revision states: "*(c) Payments by Secretary.*—The Secretary shall make payments to the State of Nevada under a benefits agreement concerning a repository under section 170 from the Waste Fund. *The signature of the Secretary on a valid benefits agreement under this subtitle shall constitute a commitment, but only to the extent that all amounts for that purpose are provided in advance in subsequent appropriations Acts, by the Secretary to make payments in accordance with such agreement.*"

The Rules Committee explanation: "CBO determined that the NWPA needed to be amended with this clarifying language to assure that the Federal government would not be held legally liable if benefits funding is not appropriated because of a contractual obligation by the Department of Energy."

The Energy and Commerce Committee Report states that Nevada would receive "nearly \$4 billion over the course of the repository project," which is stated to be 120 to 130 years. [Pp. 31, 36, 38] The bill contains no provision for adjusting the payments to Nevada for inflation. Past experience with inflation in the United States, as measured by the Consumer Price Index (CPI), suggests that the value of those dollars could decline significantly over 25 years, let alone over a century. The purchasing power of the dollar, as measured by the CPI, fell by more than one-half in the quarter-century between the first full year of DOE implementation of the NWPA (1983) and DOE filing its Yucca Mountain license application with the NRC (2008).<sup>4</sup>

The bill does not address the amounts of funding that would be needed for participation in licensing. Federal funding for State, local, and tribal government participation in the NRC licensing proceeding and oversight and monitoring of the DOE program must be provided from the Nuclear Waste Fund and cannot be considered to be a benefit.

The bill ignores potential adverse economic impacts that could result from developing Yucca Mountain or any other repository site, including uncertainty about liability (for example, limitations on liability for damages caused by DOE contractors), compensation for accident impacts that are not addressed under the Price Anderson Act (for example, the cost of precautionary evacuation following a transportation accident, reduction in property values resulting from a transportation accident, or business losses resulting from a transportation accident), and adverse economic impacts potentially resulting from routine operations.

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<sup>4</sup>The CPI increased from 99.6 in 1983, to 215.3 in 2008, an increase of 116 percent. The base year for the CPI is 1982-1984 = 100. The U.S. Department of Labor Bureau of Labor Statistics (BLS) calculates the CPI on a monthly basis. The Federal Reserve Bank of Minneapolis publishes a summary of the annual CPI since 1913, updated quarterly, at <https://minneapolisfed.org/community/financial-and-economic-education/cpi-calculator-information> .

The bill states that acceptance or use of economic benefits by Nevada “shall not be considered to be an expression of consent, express or implied, to the siting of repository in such State.”

### **Implications for Interim Storage (Title I)**

Title I Monitored Retrievable Storage (MRS) would amend the current statutory basis [42 U.S.C. 10161] for consolidated interim storage, to authorize DOE to take title to commercial spent nuclear fuel at MRS facilities. It would allow DOE to begin development of one such facility prior to final NRC action on the Yucca Mountain license application. The bill creates a consent based siting process for MRS facilities, requiring approval by the host state Governor, any affected unit of local government, and any affected Indian tribe. However, DOE could not receive spent fuel for storage at the MRS before a final NRC approval or disapproval of the Yucca Mountain license application. The bill authorizes a minimum of \$50 million for MRS development for FY 2020, 2021, and 2022; and 10 percent of Waste Fund appropriations for FY 2023, 2024, and 2025. The bill authorizes benefits payments to host states (in consultation with local governments) totaling \$5 million per year before waste receipts and \$10 million per year thereafter. H.R. 3053 retains the 1987 revocation of MRS sites in the State of Tennessee, including Oak Ridge. [42 U.S.C. 10162(a)]

### **Implications for Program Funding (Title V)**

The Committee Report states that the purpose of Title V is to reform portions of the financing mechanism “to more equitably treat ratepayers, provide certainty to DOE’s program management, and make it easier for Congress to appropriate Nuclear Waste Fund money for its intended purposes, without taking resources away from other priority programs across the Federal government.” [p. 34] The bill originally reported by the Energy and Commerce Committee included a mandatory annual allocation of \$370 million to DOE, after waste is first received at the repository, which “would prevent future political interference through the appropriations process.” [p. 38] However, this provision is eliminated in the proposed revision reported by the Rules Committee.

Close examination reveals no basis for concluding that H.R. 3053 would establish a workable mechanism for funding the high-level nuclear waste program, either over the first ten years after enactment, or over the 120-130 year operating life of the proposed Yucca Mountain repository. Neither the Committee Report nor the CBO analysis [included in the Committee Report at pages 44-57] provide a life-of-operations, year-by-year forecast of nuclear waste program expenditures and income, comparable to the future income and disposal cost estimates reported in the DOE 2008 Total System Life Cycle Cost (TSLCC) Analysis<sup>5</sup> nor the 2013 DOE Fee Adequacy

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<sup>5</sup>DOE, OCRWM, *Analysis of the Total System Life Cycle Cost of the Civilian Radioactive Waste Management Program, Fiscal Year 2007*, DOE/RW-0591, Washington, DC (July 2008).

[http://www.state.nv.us/nucwaste/news2018/pdf/FY\\_2007\\_TotalSystemLifeCycleCost\\_Pub2008.pdf](http://www.state.nv.us/nucwaste/news2018/pdf/FY_2007_TotalSystemLifeCycleCost_Pub2008.pdf)

Additional information is available in OCRWM, *Summary of Program Financial and Budget Information* (January 1, 2010). <http://www.state.nv.us/nucwaste/news2018/pdf/ocrwm-budget-summary.pdf>

Report.<sup>6</sup> Contrary to stated intentions, H.R. 3053 might well create greater political conflicts within the congressional appropriations process

The DOE 2008 TSLCC Analysis provides detailed estimates, in constant 2007 dollars, of past nuclear waste program costs (1983-2006) and projects nuclear waste program costs (2007-2133). DOE uses same year constant dollars to remove the effects of inflation. This report is the source for the commonly cited \$96 billion (2007\$) total cost for the Yucca Mountain repository project: historical costs of \$13.54 billion (2007\$) plus future costs of \$82.64 billion (2007\$). [p. 2] The DOE analysis indicates that about 80 percent of these costs are for disposal of commercial spent nuclear fuel (SNF) and high-level radioactive waste (HLW) and would be paid by appropriations from the Nuclear Waste Fund. Separate defense appropriations would pay approximately 20 percent of the program cost for disposal of defense HLW and DOE-owned SNF. [Pp. 32-33]

The DOE 2013 Fee Adequacy Report provides historical data on past utility payments into the Nuclear Waste Fund (NWF) and projected future payments in constant 2012 dollars based on assumptions about the amount of nuclear-generated electricity annually. As of August 2012, DOE reported that the NWF balance totaled about \$28.2 billion (2012\$). DOE projected future fee income at \$20.5 billion (2012\$). [p. 25] In compliance with a federal court order, DOE stopped collecting the fee in 2014. DOE had projected that utility payments into the fund for 2014 to 2018 would total about \$3.68 billion (2012\$). [p. A-3] While fee collection ended five years ago, the NWF continues to receive interest, and currently totals about \$37 billion. [Committee Report, p. 18]

Sec. 501 would continue suspension of DOE collection of utility fees until after a final NRC decision on the Yucca Mountain construction authorization (CA). No new utility payments would be coming into the NWF during the licensing proceeding, which could cost \$2 billion or more over 3-4 years. Program funds during this period would be requested from Congress annually by the Administration, through the current politically-charged appropriations process. After the CA decision, program funds would remain reliant upon on the current appropriations process, although DOE could now resume collection of utility fees, and the collected fees classified as “discretionary accounts” would be more readily available for appropriation. As stated earlier, the Rules Committee version eliminates the original provisions for annual mandatory percentage allocations from the NWF balance.<sup>7</sup>

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<sup>6</sup>DOE, *Nuclear Waste Fund Fee Adequacy Assessment Report* (January 2013).  
[http://www.state.nv.us/nucwaste/news2018/pdf/11-1066-2013-01\\_18.pdf](http://www.state.nv.us/nucwaste/news2018/pdf/11-1066-2013-01_18.pdf)

<sup>7</sup> In the version reported by the Energy and Commerce Committee, Sec. 504 would have established four categories of mandatory percentage allocations from the NWF 2017 balance (\$37 billion) that would be paid to DOE without further appropriation, after the beginning of waste receipts at the repository, for: (A) repository construction and operation over 25 years, one percent (\$370 million) per year; (B) a one-time, one percent (\$370 million) benefits payments to Nevada; (C) annual benefits payments to Nevada and Nevada local and tribal governments, 0.1 percent (\$37 million) per year; and (D) monitoring and waste package and drip shield fabrication (20 percent, or \$7.4 billion), after all waste is emplaced and the decommissioning period has begun. Additionally, (E) uncollected utility payments (estimated at \$2.6 billion plus interest by CBO) under NWPA subsection 302 (a) (3), would be available to DOE in the year paid without further appropriation.

The DOE 2008 TSLCC year-by-year future cost estimates provide a basis for evaluating the funding that would be needed for the actions proposed in H.R. 3053. First, the 2008 TSLCC analysis indicates DOE would need ten years and \$13.51 billion (2007\$) to obtain a construction authorization and license to receive radioactive materials from the NRC, and complete required construction before receiving SNF and HLW. All of the repository program funding during this period would be requested by the Administration and appropriated by Congress, using the 80/20 percent commercial-defense cost sharing formula. The annual Administration requests would need to reflect inflation. Even during the recent period of historically low inflation, the CPI increased 18 percent between 2007 and 2017, at an annual average rate of about 1.6 percent.

Second, the 2008 TSLCC analysis indicates DOE would require \$32.55 billion (2007\$), or \$1.3 billion (2007\$) per year, for the next 25 years of repository construction and operations after SNF and HLW receipts begin. Even if the inflation rate was low by historical standards, about 1.6 percent per year, DOE still would need to request an appropriation of about \$1.5 billion in the first year of full operations. If inflation continued at only 1.6 percent per year, by Year 25, the DOE annual appropriations request could be \$2.0 billion. If the inflation rate was the same as between 1983 and 2008, DOE would need to request about \$2.7 billion for Year 25.

As reported by the Rules Committee, H.R. 3053 does nothing to assure adequate funding for the Yucca Mountain project over the ten year period evaluated for CBO scoring, let alone 120-130 years of anticipated operations, outside the regular appropriations process. Moreover, each year the Administration would request future repository funds in year of appropriations dollars. As noted earlier, the purchasing power of the dollar, as measured by the CPI, fell by more than one-half, in the quarter-century between the first full year of DOE NWPA implementation (1983) and Yucca Mountain license application submittal to NRC (2008).

Finally, Sec. 501 (a) would create certain political controversy by the vague manner in which it directs the Secretary of Energy to conduct a new repository lifecycle cost analysis, and develop a new utility fee collection program based on the findings of that analysis. This provision intentionally “does not address whether DOE can begin assessing the fee prior to NRC’s final decision” the Committee Report explains in a footnote. [fn. 69, p. 35] Other intentionally vague provisions regard the collection of interest on fees paid and renegotiation of the Standard Contract. [fn. 71-74, p.36] The Secretary is authorized to resume collection of fees but is not required to resume collection of fees. The amount of fees that can be collected annually could apparently vary from fiscal year to fiscal year.<sup>8</sup> Could such a vaguely defined new fee collection program, worth up to \$1 billion (or possibly more) per year, be established without political controversy, if not political interference? Would fee collection be resumed at all?

The authors of H.R. 3053 intended Title V to provide predictable and sufficient funding for all authorized uses under the NWPA. “The availability of funding is central to the program’s success.” [Committee Report, p. 34] Even as originally reported by the Energy and Commerce Committee, Title V failed to assure predictability or sufficiency, and created multiple new funding uncertainties. The new version proposed by the Rules Committee does not even attempt

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<sup>8</sup> The Rules Committee proposed revision would modify the original 90 percent of appropriations limit on fees collected: *The limitation in subclause (II) shall not apply during a fiscal year if, at any time during that fiscal year, the Waste Fund has a balance of zero.*

to guarantee future program funding outside of the annual appropriations process. Future utility fee collections and renegotiation of the Standard Contract are expected but not required. Because of these uncertainties, the long term costs of the program mandated by H.R. 3053 are unknown, and perhaps unknowable.

### **Implications for the High-Level Nuclear Waste Program Generally (Title VI)**

Sec. 604 retains the DOE Office of Civilian Radioactive Waste Management (OCRWM) as the managing entity for the federal nuclear waste program [as established under 42 U.S.C. 10224], but proposes vastly expanded powers for the OCRWM Director. This is quite different from the approach likely to be taken in the U.S. Senate. The Senate has previously (S. 854, 114<sup>th</sup> Congress) proposed removing the program from DOE and creating a new managing entity, a stand-alone federal agency, the Nuclear Waste Administration. The Blue Ribbon Commission (BRC) on America's Nuclear Future (2012 Final Report) and the Nuclear Energy Institute have recommended transferring the nuclear waste program to a federal corporation.

Sec. 604 (a) would allow the OCRWM Director to serve two 5-year terms (instead of serving at the pleasure of President), would limit the President's ability to remove the Director (only for inefficiency, neglect of duty, or malfeasance in office), and require a report to Congress explaining the reason for such removal.

Sec. 604 (b) would transfer to the OCRWM Director all nuclear waste functions currently assigned to one or more Assistant Secretaries of Energy by 42 U.S.C 7133(a). The responsibilities transferred include:

- (1) the establishment of control over existing government facilities for the treatment and storage of nuclear wastes, including all containers, casks, buildings, vehicles, equipment, and all other materials associated with such facilities;
- (2) the establishment of control over all existing nuclear waste in the possession or control of the government and all commercial nuclear waste presently stored on other than the site of a licensed nuclear power electric generating facility, except that nothing in this paragraph shall alter or effect title to such waste;
- (3) the establishment of temporary and permanent facilities for storage, management, and ultimate disposal of nuclear wastes;
- (4) the establishment of facilities for the treatment of nuclear wastes;
- (5) the establishment of programs for the treatment, management, storage, and disposal of nuclear wastes;
- (6) the establishment of fees or user charges for nuclear waste treatment or storage facilities, including fees to be charged government agencies; and
- (7) the promulgation of such rules and regulations to implement the authority described in this paragraph, except that nothing in this section shall be construed as granting to the Department regulatory functions presently within the Nuclear Regulatory Commission, or any additional functions than those already conferred by law.



Sec. 603 would expand the allowable uses of financial and technical assistance provided by OCRWM under the NWPA Sec. 180c to States and Indian tribes affected by nuclear waste transportation to a repository or MRS facility. Otherwise the bill is silent regarding the radiological and social impacts of transporting spent nuclear fuel and high-level radioactive waste. The BRC, based on the National Academy of Sciences 2006 report, recommended that 13 specific measures be adopted before the commencement of shipments to federal facilities, for the purposes of enhancing safety, security, and public acceptance. The potential shipping routes to Yucca Mountain identified by DOE in 2008 would affect 44 states and the District of Columbia and traverse 330 congressional districts.

## **Need for Additional Clarification Regarding Sections 504 and 608**

Additional report language is needed to clarify the implications of revised Section 504 and new Section 608 proposed in the Rules Committee version of H.R. 3053:

### **Sec. 504. Availability of certain amounts**

*Section 302 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222) is amended by adding at the end the following:*

*(f) Limitation on funding. –*

*(1) In general. – Beginning on the date of first spent fuel receipt at a repository, no amount may be appropriated in any fiscal year for activities relating to the repository, including transportation of additional spent fuel to the repository and operation of the repository, unless the applicable amount required with respect to the repository under section 171(a)(1)(B) or section 171(a)(1)(C) is appropriated for that fiscal year.*

*2) Definition. – In this subsection, the terms 'spent fuel' and 'first spent fuel receipt' have the meaning given such terms in section 171(a)*

*(g) Offsetting funding. –*

*(1) In general. – Fees collected after the date of enactment of the Nuclear Waste Policy Amendments Act of 2018 pursuant to subsection (a) shall be credited to the Waste Fund and available, to the extent provided in advance in appropriation Acts and consistent with the requirements of this section, to carry out activities authorized to be funded from the Waste Fund.*

*(2) Offsetting collection. – Fees collected in a fiscal year pursuant to paragraph (1) shall be deposited and credited as offsetting collections to the account providing appropriations for such activities and shall be classified as discretionary appropriations as defined by section 250(c)(7) of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 900(c)(7)).*

*(3) Estimates. – For the purposes of the Balanced Budget and Emergency Deficit Control Act of 1985 (2 U.S.C. 900 et seq.) and the Congressional Budget Act*

*of 1974 (2 U.S.C. 621 et seq.) and for determining points of order pursuant to that Act or any concurrent resolution on the budget, an estimate provided under those Acts for a provision in a bill or joint resolution, or amendment thereto or conference report thereon, that provides discretionary appropriations, derived from amounts in the Waste Fund, for such activities shall include in that estimate the amount of such fees that will be collected during the fiscal year for which such appropriation is made available. Any such estimate shall not include any change in net direct spending as result in the appropriation of such fees.*

**Sec. 608. Budgetary effects**

*(a) Statutory PAYGO Scorecards. – The budgetary effects of this Act and the amendments made by this Act shall not be entered on either PAYGO scorecard maintained pursuant to section 4(d) of the Statutory Pay-As-You-Go Act of 2010.*

*(b) Senate PAYGO Scorecards. – The budgetary effects of this Act and the amendments made by this Act shall not be entered on any PAYGO scorecard maintained for purposes of section 4106 of H. Con. Res. 71 (115<sup>th</sup> Congress).*