Read Free Management Of Spent Nuclear Fuel Dry Storage In Taiwan Read Pdf Free

Safety and Security of Commercial Spent Nuclear Fuel Storage Standard Review Plan for Spent Fuel Dry Storage Facilities **Licensing of Spent Fuel Dry Storage and Consolidated Rod Storage Dry Storage of Spent Nuclear Fuel Managing Aging Effects on Dry Cask Storage Systems for Extended Long-term Storage and Transportation of Used Fuel - Rev. 0 Guidebook on Spent Fuel Storage** *Standard Review Plan for Spent Fuel Dry Storage Systems at a General License Facility* **Design of Spent Fuel Storage Facilities** *Standard Review Plan for Spent Fuel Dry Storage Facilities* **Survey of Experience with Dry Storage of Spent Nuclear Fuel and Update of Wet Storage Experience** Dry Storage of Spent Fuel Elements **Operation of Spent Fuel Storage Facilities** *Standard Review Plan for Dry Cask Storage Systems. Final Report* **An International Spent Nuclear Fuel Storage Facility** *Safety Assessment for Spent Fuel Storage Facilities* Standard Review Plan for Spent Fuel Dry Storage Systems at a General License Facility **Storage of Spent Nuclear Fuel Studies and Research Concerning BNFP** Foreign Experience on Effects of Extended Dry Storage on the Integrity of Spent Nuclear Fuel Spent Fuel Dry Storage Technology Development **Standard Review Plan for Spent Fuel Dry Storage Facilities** Spent Fuel Dry Storage Technology Development **Standard Review Plan for Spent Fuel**

Dry Storage Systems and Facilities Status of Spent Fuel Dry Storage Concepts *Standard Review Plan for Renewal of Spent Fuel Dry Cask Storage System Licenses and Certificates of Compliance* **Disposal and Storage of Spent Nuclear Fuel--finding the Right Balance** Dry Storage of Spent Fuel at U.S. Reactors and Its Relative Contribution to the Low-level Radiation Exposure of the General Public **Computational Fluid Dynamics Best Practice Guidelines for Dry Cask Applications Spent Fuel Working Group Report on Inventory and Storage of the Department's Spent Nuclear Fuel and Other Reactor Irradiated Nuclear Materials and Their Environmental, Safety, and Health Vulnerabilities The Feasibility of Cask "Fingerprinting" as a Spent-Fuel, Dry-Storage Cask Safeguards Technique** *Safety Related Issues of Spent Nuclear Fuel Storage* **Testing and Analyses of the TN-24P PWR Spent-fuel Dry Storage Cask Loaded with Consolidated Fuel Status of Spent Fuel Dry Storage Facilities at the Idaho Chemical Processing Plant Fluent CDF Modeling in Design of Spent Nuclear Fuel Dry Storage Cask** Dry Storage of Spent Fuel *Operation and Maintenance of Spent Fuel Storage and Transportation Casks/containers Foreign Experience in Extended Dry Storage of Spent Nuclear Fuel* Spent Fuel Integrity During Dry Storage **Spent Nuclear Fuel Dry Cask Storage Requirements for Yucca Mountain and Available Margin** *Radiation Imaging of Dry-Storage Casks for Spent Nuclear Fuel*

Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities Apr 09 2021
Disposal and Storage of Spent Nuclear Fuel--finding the Right Balance Jan 07 2021
Licensing of Spent Fuel Dry Storage and Consolidated Rod Storage Dec 30 2022 The results of this study, performed by Pacific Northwest Laboratory (PNL) and sponsored by the US Department of Energy (DOE), respond to the nuclear industry's

recommendation that a report be prepared that collects and describes the licensing issues (and their resolutions) that confront a new applicant requesting approval from the US Nuclear Regulatory Commission (NRC) for dry storage of spent fuel or for large-scale storage of consolidated spent fuel rods in pools. The issues are identified in comments, questions, and requests from the NRC during its review of applicants' submittals. Included in the report are discussions of (1) the 18 topical reports on cask and module designs for dry storage fuel that have been submitted to the NRC, (2) the three license applications for dry storage of spent fuel at independent spent fuel storage installations (ISFSIs) that have been submitted to the NRC, and (3) the three applications (one of which was later withdrawn) for large-scale storage of consolidated fuel rods in existing spent fuel storage pools at reactors that were submitted tot he NRC. For each of the applications submitted, examples of some of the issues (and suggestions for their resolutions) are described. The issues and their resolutions are also covered in detail in an example in each of the three subject areas: (1) the application for the CASTOR V/21 dry spent fuel storage cask, (2) the application for the ISFSI for dry storage of spent fuel at Surry, and (3) the application for full-scale wet storage of consolidated spent fuel at Millstone-2. The conclusions in the report include examples of major issues that applicants have encountered. Recommendations for future applicants to follow are listed. 401 refs., 26 tabs.

Studies and Research Concerning BNFP Sep 14 2021 Conceptual designs are presented utilizing the Barnwell Nuclear Fuel Plant for the dry interim storage of spent light water reactor fuel. Studies were conducted to determine feasible approaches to storing spent fuel by methods other than wet pool storage. Fuel that has had an opportunity to cool for several years, or more, after discharge from a reactor is especially adaptable to dry storage since its thermal load is greatly reduced compared to the thermal load immediately following discharge. A thermal analysis

was performed to help in determining the feasibility of various spent fuel dry storage concepts. Methods to reject the heat from dry storage are briefly discussed, which include both active and passive cooling systems. The storage modes reviewed include above and below ground caisson-type storage facilities and numerous variations of vault, or hot cell-type, storage facilities.

Fluent CDF Modeling in Design of Spent Nuclear Fuel Dry Storage Cask Apr 29 2020

Dry Storage of Spent Fuel at U.S. Reactors and Its Relative Contribution to the Low-level Radiation Exposure of the General Public Dec 06 2020

Safety Assessment for Spent Fuel Storage Facilities Dec 18 2021 Describes international approaches for maintaining fuel subcritical, removing residual heat, providing radiation protection and containing radioactive materials for the lifetime of a facility. It is intended to provide details on the safety assessment of interim spent fuel storage facilities that are not an integral part of an operating plant.

Radiation Imaging of Dry-Storage Casks for Spent Nuclear Fuel Oct 23 2019 The authors report the results of a measurement campaign conducted on six dry-storage, spent-nuclear-fuel storage casks at the Idaho National Laboratory. a gamma-ray imager, a thermal-neutron imager and a Ge-spectrometer were used to collect data. The campaign was conducted to examine the feasibility of using cask radiation signatures as unique identifiers for individual casks as part of a safeguards regime. The results clearly show different morphologies for the various cask types although the signatures are deemed insufficient to uniquely identify individual casks of the same type. Based on results with the Ge-spectrometer and differences between thermal neutron images and neutron-dose meters, this result is attributed to the limitations of the extant imagers used, rather than of the basic concept.

Standard Review Plan for Spent Fuel Dry Storage Facilities Jan

31 2023 The Standard Review Plan for Spent Fuel Dry Storage Facilities (FSRP) provides guidance to the staff of the U.S. Nuclear Regulatory Commission for reviewing applications for license approval or renewal for commercial independent spent fuel storage installations (ISFSIs). An ISFSI may be co-located with a reactor or may be away from a reactor site. These installations may be designed for the storage of irradiated nuclear fuel and associated radioactive materials.

Standard Review Plan for Renewal of Spent Fuel Dry Cask Storage System Licenses and Certificates of Compliance Feb 05 2021 This Standard Review Plan is intended for use by the U.S. Nuclear Regulatory Commission (NRC) reviewer. It provides guidance for the safety review of license (specific or general) and certificate of compliance (CoC) renewal applications submitted by licensees and holders of CoCs for dry cask storage systems (DCSSs), respectively, as codified in Title 10 of the Code of Federal Regulations (10 CFR) Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste." A license authorizes a licensee to store spent fuel in an NRC-approved DCSS at a site under the requirements of 10 CFR Part 72. To renew a specific license, an applicant must submit a license renewal application at least 2 years before the expiration of the license in accordance with the requirements of 10 CFR 72.42(b). To renew a general license, the general licensee or the CoC holder must submit a renewal application at least 30 days before the expiration of the associated CoC in accordance with the requirements of 10 CFR 72.240(b). The NRC may renew a specific license or a general license for a term not to exceed 40 years, in accordance with 10 CFR 72.42(a) or 10 CFR 72.212(a)(3), respectively.

Managing Aging Effects on Dry Cask Storage Systems for Extended Long-term Storage and Transportation of Used Fuel - Rev. 0 Oct 28 2022 The cancellation of the Yucca

Mountain repository program in the United States raises the prospect of extended long-term storage (i.e.,>120 years) and deferred transportation of used fuel at operating and decommissioned nuclear power plant sites. Under U.S. federal regulations contained in Title 10 of the Code of Federal Regulations (CFR) 72.42, the initial license term for an Independent Spent Fuel Storage Installation (ISFSI) must not exceed 40 years from the date of issuance. Licenses may be renewed by the U.S. Nuclear Regulatory Commission (NRC) at the expiration of the license term upon application by the licensee for a period not to exceed 40 years. Application for ISFSI license renewals must include the following: (1) Time-limited aging analyses (TLAAs) that demonstrate that structures, systems, and components (SSCs) important to safety will continue to perform their intended function for the requested period of extended operation; and (2) a description of the aging management program (AMP) for management of issues associated with aging that could adversely affect SSCs important to safety. In addition, the application must also include design bases information as documented in the most recent updated final safety analysis report as required by 10 CFR 72.70. Information contained in previous applications, statements, or reports filed with the Commission under the license may be incorporated by reference provided that those references are clear and specific. The NRC has recently issued the Standard Review Plan (SRP) for renewal of used-fuel dry cask storage system (DCSS) licenses and Certificates of Compliance (CoCs), NUREG-1927, under which NRC may renew a specific license or a CoC for a term not to exceed 40 years. Both the license and the CoC renewal applications must contain revised technical requirements and operating conditions (fuel storage, surveillance and maintenance, and other requirements) for the ISFSI and DCSS that address aging effects that could affect the safe storage of the used fuel. The information contained in the license and CoC renewal

applications will require NRC review to verify that the aging effects on the SSCs in DCSSs/ ISFSIs are adequately managed for the period of extended operation. To date, all of the ISFSIs located across the United States with more than 1,500 dry casks loaded with used fuel have initial license terms of 20 years; three ISFSIs (Surry, H.B. Robinson and Oconee) have received their renewed licenses for 20 years, and two other ISFSIs (Calvert Cliffs and Prairie Island) have applied for license renewal for 40 years. This report examines issues related to managing aging effects on the SSCs in DCSSs/ISFSIs for extended long-term storage and transportation of used fuels, following an approach similar to that of the Generic Aging Lessons Learned (GALL) report, NUREG-1801, for the aging management and license renewal of nuclear power plants. The report contains five chapters and an appendix on quality assurance for aging management programs for used-fuel dry storage systems. Chapter I of the report provides an overview of the ISFSI license renewal process based on 10 CFR 72 and the guidance provided in NUREG-1927. Chapter II contains definitions and terms for structures and components in DCSSs, materials, environments, aging effects, and aging mechanisms. Chapter III and Chapter IV contain generic TLAAs and AMPs, respectively, that have been developed for managing aging effects on the SSCs important to safety in the dry cask storage system designs described in Chapter V. The summary descriptions and tabulations of evaluations of AMPs and TLAAs for the SSCs that are important to safety in Chapter V include DCSS designs (i.e., NUHOMS{reg_sign}, HI-STORM 100, Transnuclear (TN) metal cask, NAC International S/T storage cask, ventilated storage cask (VSC-24), and the Westinghouse MC-10 metal dry storage cask) that have been and continue to be used by utilities across the country for dry storage of used fuel to date. The goal of this report is to help establish the technical basis for extended long-term storage and transportation of used fuel.

Operation and Maintenance of Spent Fuel Storage and Transportation Casks/containers Feb 26 2020 Provides a comprehensive review of information on the cask operation and maintenance associated with spent fuel storage. The publication draws upon generic knowledge from industrial experience and applications and is intended to serve as a basis for improved planning and implementation in future projects.

Dry Storage of Spent Nuclear Fuel Nov 28 2022

The Feasibility of Cask "Fingerprinting" as a Spent-Fuel, Dry-Storage Cask Safeguards Technique Sep 02 2020 This report documents a week-long measurement campaign conducted on six, dry-storage, spent-nuclear-fuel storage casks at the Idaho National Laboratory. A gamma-ray imager, a thermal-neutron imager and a germanium spectrometer were used to collect data on the casks. The campaign was conducted to examine the feasibility of using the cask radiation signatures as unique identifiers for individual casks as part of a safeguards regime. The results clearly show different morphologies for the various cask types although the signatures are deemed insufficient to uniquely identify individual casks of the same type. Based on results with the germanium spectrometer and differences between thermal neutron images and neutron-dose meters, this result is thought to be due to the limitations of the extant imagers used, rather than of the basic concept. Results indicate that measurements with improved imagers could contain significantly more information. Follow-on measurements with new imagers either currently available as laboratory prototypes or under development are recommended.

Standard Review Plan for Spent Fuel Dry Storage Facilities Jun 23 2022

Guidebook on Spent Fuel Storage Sep 26 2022 This guidebook is a revised version of Technical Reports Series No. 240, published in 1984. It provides a summary of the experience and information in many areas related to spent fuel storage. It will

allow a better understanding of the many problems involved and permit countries that are planning for or operating nuclear power reactors to review the issues in a more informative manner. In view of the large quantity of spent fuel discharged from nuclear power plants, long term storage is currently the primary option for the management of spent fuel. The proven wet storage concept is expected to continue to be used in the future. The design and the technological, economic and material problems of safe spent fuel storage will remain a focus of attention, with particular emphasis on dry storage technology, rod consolidation and other advanced concepts.

Foreign Experience in Extended Dry Storage of Spent Nuclear Fuel Jan 25 2020 Most countries with nuclear power are planning for spent nuclear fuel (or high-level waste from reprocessing of spent fuel) to be disposed of in national deep geological repositories starting in the time period of about 2010 to 2050. While spent fuel has been stored in water basins for the early years after discharge from the reactors, interim dry storage for extended periods (i.e., several tens of years) is being implemented or considered in an increasing number of countries. Dry storage technology is generally considered to be developed on a world-wide basis, and is being initiated and/ or expanded in a number of countries. This paper presents a summary of status and experience in dry storage of spent fuel in other countries, with emphasis on zirconium-clad fuels. Past activities, current status, future plans, research and development, and experience in dry storage are summarized for Argentina, Canada, France, former West Germany, former East Germany, India, Italy, Japan, South Korea, Spain, Switzerland, United Kingdom, and the former Soviet Union. Conclusions from their experience are presented. Their experience to date supports the expectations that proper dry storage should provide for safe extended dry storage of spent fuel.

Standard Review Plan for Spent Fuel Dry Storage Facilities

Jun 11 2021

Spent Fuel Dry Storage Technology Development Jul 13 2021 A spent fuel assembly temperature test under imposed dry storage conditions was conducted at the Engine Maintenance Assembly and Disassembly (E-MAD) facility on the Nevada Test Site in support of spent fuel dry storage technology development. This document presents the test data and results obtained from an approximately 1.0 kW decay heat level PWR spent fuel assembly. A spent fuel test apparatus was designed to utilize a representative stainless steel spent fuel canister, a canister lid containing internal temperature instrumentation to measure fuel cladding temperatures, and a carbon steel liner that encloses the canister and lid. Electrical heaters along the liner length, on the lid, and below the canister are used to impose dry storage canister temperature profiles. Temperature instrumentation is provided on the liner and canister. The liner and canister are supported by a test stand in one of the large hot cells (West Process Cell) inside E-MAD. Fuel temperature measurements have been performed using imposed canister temperature profiles from the electrically heated and spent fuel drywell tests being conducted at E-MAD as well as for four constant canister temperature profiles, each with a vacuum, helium and air backfill. Computer models have been utilized in conjunction with the test to predict the thermal response of the fuel cladding. Computer predictions are presented, and they show good agreement with the test data.

Safety Related Issues of Spent Nuclear Fuel Storage Aug 02 2020 This book contains papers from a NATO-sponsored workshop in Almaty in September 2005, which discussed safety-related issues of storing spent nuclear fuel. Fifteen papers cover aluminum-clad fuel discharged from research reactors worldwide, while five papers examine stainless steel-clad fuel from fast reactors, and two Zircaloy-clad fuel from commercial light-water reactors.

Status of Spent Fuel Dry Storage Facilities at the Idaho

Chemical Processing Plant May 30 2020
Spent Fuel Dry Storage Technology Development May 11 2021 A PWR spent fuel assembly was encapsulated inside the E-MAD Hot Bay and placed in a instrumented above surface storage cell during December 1978 for thermal testing. Instrumentation provided to measure canister, liner and concrete temperatures consisted of thermocouples which were inserted into tubes on the outside of the canister and liner and in three radial positions in the concrete. Temperatures from the SSC test assembly have been recorded throughout the past 16 months. Canister and liner temperatures have reached their peak values of 200°F and 140°F, respectively. Computer predictions of the transient and steady-state temperatures show good agreement with the test data.
Storage of Spent Nuclear Fuel Oct 16 2021 This publication is a revision by amendment of IAEA Safety Standards Series No. SSG-15 and provides recommendations and guidance on the storage of spent nuclear fuel. It covers all types of storage facility and all types of spent fuel from nuclear power plants and research reactors. It takes into consideration the longer storage periods beyond the original design lifetime of the storage facility that have become necessary owing to delays in the development of disposal facilities and the reduction in reprocessing activities. It also considers developments associated with nuclear fuel, such as higher enrichment, mixed oxide fuels and higher burnup. Guidance is provided on all stages in the lifetime of a spent fuel storage facility, from planning through siting and design to operation and decommissioning. The revision was undertaken by amending, adding and/or deleting specific paragraphs addressing recommendations and findings from studying the accident at the Fukushima Daiichi nuclear power plant in Japan.
Survey of Experience with Dry Storage of Spent Nuclear Fuel and Update of Wet Storage Experience May 23 2022
Testing and Analyses of the TN-24P PWR Spent-fuel Dry Storage Cask Loaded with Consolidated Fuel Jul 01 2020 A

performance test of a Transnuclear, Inc. TN-24P storage cask configured for pressurized water reactor (PWR) spent fuel was performed. The work was performed by the Pacific Northwest Laboratory (PNL) and Idaho National Engineering Laboratory (INEL) for the US Department of Energy Office of Civilian Radioactive Waste Management (OCRWM) and the Electric Power Research Institute. The performance test consisted of loading the TN-24P cask with 24 canisters of consolidated PWR spent fuel from Virginia Power's Surry and Florida Power and Light's Turkey Point reactors. Cask surface and fuel canister guide tube temperatures were measured, as were cask surface gamma and neutron dose rates. Testing was performed with vacuum, nitrogen, and helium backfill environments in both vertical and horizontal cask orientations. Transnuclear, Inc., arranged to have a partially insulated run added to the end of the test to simulate impact limiters. Limited spent fuel integrity data were also obtained. From both heat transfer and shielding perspectives, the TN-24P cask with minor refinements can be effectively implemented at reactor sites and central storage facilities for safe storage of unconsolidated and consolidated spent fuel. 35 refs., 93 figs., 17 tabs.

Standard Review Plan for Spent Fuel Dry Storage Systems at a General License Facility Nov 16 2021

Spent Fuel Integrity During Dry Storage Dec 26 2019 Information on spent fuel integrity is of interest in evaluating the impact of long-term dry storage on the behavior of spent fuel rods. Spent fuel used during cask performance tests at the Idaho National Engineering Laboratory (INEL) offers significant opportunities for confirmation of the benign nature of long-term dry storage. The cask performance tests conducted at INEL included visual observation and ultrasonic examination of the condition of cladding, fuel rods, and fuel assembly hardware before dry storage and consolidation of the fuel; and a qualitative determination of the effect of dry storage and fuel consolidation

on fission gas release from the spent fuel rods. A variety of cover gases and cask orientations were used during the cask performance tests. Cover gases included vacuum, nitrogen, and helium. The nitrogen and helium backfills were sampled and analyzed to detect leaking spent fuel rods. At the conclusion of each performance test, periodic gas sampling was conducted on each cask as part of a surveillance and monitoring activity. Continued surveillance and monitoring activities are being conducted for intact fuel in a CASTOR V/21 cask and for consolidated fuel in a VSC-17 cask. The results of the gas sampling activities are reported in this paper.
Status of Spent Fuel Dry Storage Concepts Mar 09 2021
An International Spent Nuclear Fuel Storage Facility Jan 19 2022 As part of a long-standing collaboration on nuclear nonproliferation, the National Academy of Sciences and the Russian Academy of Sciences held a joint workshop in Moscow in 2003 on the scientific aspects of an international radioactive disposal site in Russia. The passage of Russian laws permitting the importation and storage of high-level radioactive material (primarily spent nuclear fuel from reactors) has engendered interest from a number of foreign governments, including the U.S., in exploring the possibility of transferring material to Russia on a temporary or permanent basis. The workshop focused on the environmental aspects of the general location and characteristics of a possible storage site, transportation to and within the site, containers for transportation and storage, inventory and accountability, audits and inspections, and handling technologies.
Dry Storage of Spent Fuel Elements Apr 21 2022
Operation of Spent Fuel Storage Facilities Mar 21 2022 Please note: this publication is superseded by SSG-15
Computational Fluid Dynamics Best Practice Guidelines for Dry Cask Applications Nov 04 2020 ABSTRACT Dry storage cask designs for spent nuclear fuel are submitted to the U.S. Nuclear Regulatory Commission (NRC) for certification under

Title 10 of the Code of Federal Regulations (10 CFR) Part 72, “Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High- Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste.” The NRC staff technical review of these designs is performed in accordance with 10 CFR Part 72 and the “Standard Review Plan (SRP) for Spent Fuel Dry Storage Systems at a General License Facility” (NUREG-1536, 2010). To ensure that the cask and fuel material temperatures of the dry cask storage system will remain within the allowable limits or criteria for normal, off-normal, and accident conditions, a thermal review is performed as part of the application's technical review. Recent applications increasingly have used thermal-hydraulic analyses and computational fluid dynamics (CFD) codes (e.g., FLUENT) to demonstrate the adequacy of the thermal design. Therefore, in cooperation with the Division of Spent Fuel Storage and Transportation of the Office of Nuclear Material Safety and Safeguards, the Office of Nuclear Regulatory Research developed this guide to provide practical advice for reviewing CFD methods used in vendor applications and for achieving high-quality CFD simulations of a dry cask. To assist in the analysis, the report includes procedures, analysis methods, and acceptable assumptions.

Design of Spent Fuel Storage Facilities Jul 25 2022 This Safety Guide has been developed through a series of technical meetings and represents an international consensus on useful design principles. These principles will be effective in maintaining fuel subcritical, removing residual heat, providing radiation protection and containing radioactive materials for the lifetime of the facility.

Spent Fuel Working Group Report on Inventory and Storage of the Department's Spent Nuclear Fuel and Other Reactor Irradiated Nuclear Materials and Their Environmental, Safety, and Health Vulnerabilities Oct 04 2020

Safety and Security of Commercial Spent Nuclear Fuel Storage Mar 01 2023 In response to a request from Congress, the Nuclear Regulatory Commission and the Department of Homeland Security sponsored a National Academies study to assess the safety and security risks of spent nuclear fuel stored in cooling pools and dry casks at commercial nuclear power plants. The information provided in this book examines the risks of terrorist attacks using these materials for a radiological dispersal device. Safety and Security of Commercial Spent Nuclear Fuel is an unclassified public summary of a more detailed classified book. The book finds that successful terrorist attacks on spent fuel pools, though difficult, are possible. A propagating fire in a pool could release large amounts of radioactive material, but rearranging spent fuel in the pool during storage and providing emergency water spray systems would reduce the likelihood of a propagating fire even under severe damage conditions. The book suggests that additional studies are needed to better understand these risks. Although dry casks have advantages over cooling pools, pools are necessary at all operating nuclear power plants to store at least the recently discharged fuel. The book explains it would be difficult for terrorists to steal enough spent fuel to construct a significant radiological dispersal device.
Standard Review Plan for Dry Cask Storage Systems. Final Report Feb 17 2022 The Standard Review Plan (SRP) For Dry Cask Storage Systems provides guidance to the Nuclear Regulatory Commission staff in the Spent Fuel Project Office for performing safety reviews of dry cask storage systems. The SRP is intended to ensure the quality and uniformity of the staff reviews, present a basis for the review scope, and clarification of the regulatory requirements. Part 72, Subpart B generally specifies the information needed in a license application for the independent storage of spent nuclear fuel and high level radioactive waste. Regulatory Guide 3.61 {open_quotes}Standard Format and Content for a Topical Safety Analysis Report for a Spent Fuel Dry

Storage Cask{close_quotes} contains an outline of the specific information required by the staff. The SRP is divided into 14 sections which reflect the standard application format. Regulatory requirements, staff positions, industry codes and standards, acceptance criteria, and other information are discussed.

Dry Storage of Spent Fuel Mar 28 2020

Foreign Experience on Effects of Extended Dry Storage on the Integrity of Spent Nuclear Fuel Aug 14 2021 This report summarizes the results of a survey of foreign experience in dry storage of spent fuel from nuclear power reactors that was carried out for the US Department of Energy's (DOE) Office of Civilian Radioactive Waste Management (OCRWM). The report reviews the mechanisms for degradation of spent fuel cladding and fuel materials in dry storage, identifies the status and plans of world-wide experience and applications, and documents the available information on the expected long-term integrity of the dry-stored spent fuel from actual foreign experience. Countries covered in this survey are: Argentina, Canada, Federal Republic of Germany (before reunification with the former East Germany), former German Democratic Republic (former East Germany), France, India, Italy, Japan, South Korea, Spain, Switzerland, United Kingdom, and the former USSR (most of these former Republics are now in the Commonwealth of Independent States [CIS]). Industrial dry storage of Magnox fuels started in 1972 in the United Kingdom; Canada began industrial dry storage of CANDU fuels in 1980. The technology for safe storage is generally considered to be developed for time periods of 30 to 100 years for LWR fuel in inert gas and for some fuels in oxidizing gases at low temperatures. Because it will probably be decades before countries will have a repository for spent fuels and high-level wastes, the plans for expanded use of dry storage have increased significantly in recent years and are expected to continue to increase in the near future.

Standard Review Plan for Spent Fuel Dry Storage Systems at a

General License Facility Aug 26 2022 The Standard Review Plan (SRP) for dry storage systems (DSS) provides guidance to the U.S. Nuclear Regulatory Commission (NRC) staff in the Division of Spent Fuel Storage and Transportation (SFST) for reviewing applications for a Certificate of Compliance (CoC) of a dry storage system (DSS) for use at a general license facility.
Spent Nuclear Fuel Dry Cask Storage Requirements for Yucca Mountain and Available Margin Nov 24 2019

- Safety And Security Of Commercial Spent Nuclear Fuel Storage
- Standard Review Plan For Spent Fuel Dry Storage Facilities
- Licensing Of Spent Fuel Dry Storage And Consolidated Rod Storage
- Dry Storage Of Spent Nuclear Fuel
- Managing Aging Effects On Dry Cask Storage Systems For Extended Long term Storage And Transportation Of Used Fuel Rev 0
- Guidebook On Spent Fuel Storage
- Standard Review Plan For Spent Fuel Dry Storage Systems At A General License Facility
- Design Of Spent Fuel Storage Facilities
- Standard Review Plan For Spent Fuel Dry Storage Facilities
- Survey Of Experience With Dry Storage Of Spent Nuclear Fuel And Update Of Wet Storage Experience
- Dry Storage Of Spent Fuel Elements
- Operation Of Spent Fuel Storage Facilities
- Standard Review Plan For Dry Cask Storage Systems Final Report
- An International Spent Nuclear Fuel Storage Facility
- Safety Assessment For Spent Fuel Storage Facilities
- Standard Review Plan For Spent Fuel Dry Storage Systems At A General License Facility
- Storage Of Spent Nuclear Fuel

- Studies And Research Concerning BNFP
- Foreign Experience On Effects Of Extended Dry Storage On The Integrity Of Spent Nuclear Fuel
- Spent Fuel Dry Storage Technology Development
- Standard Review Plan For Spent Fuel Dry Storage Facilities
- Spent Fuel Dry Storage Technology Development
- Standard Review Plan For Spent Fuel Dry Storage Systems And Facilities
- Status Of Spent Fuel Dry Storage Concepts
- Standard Review Plan For Renewal Of Spent Fuel Dry Cask Storage System Licenses And Certificates Of Compliance
- Disposal And Storage Of Spent Nuclear Fuel finding The Right Balance
- Dry Storage Of Spent Fuel At US Reactors And Its Relative Contribution To The Low level Radiation Exposure Of The General Public
- Computational Fluid Dynamics Best Practice Guidelines For Dry Cask Applications
- Spent Fuel Working Group Report On Inventory And Storage Of The Departments Spent Nuclear Fuel And Other Reactor Irradiated Nuclear Materials And Their Environmental Safety And Health Vulnerabilities
- The Feasibility Of Cask Fingerprinting As A Spent Fuel Dry Storage Cask Safeguards Technique
- Safety Related Issues Of Spent Nuclear Fuel Storage
- Testing And Analyses Of The TN 24P PWR Spent fuel Dry Storage Cask Loaded With Consolidated Fuel
- Status Of Spent Fuel Dry Storage Facilities At The Idaho Chemical Processing Plant
- Fluent CDF Modeling In Design Of Spent Nuclear Fuel Dry Storage Cask
- Dry Storage Of Spent Fuel
- Operation And Maintenance Of Spent Fuel Storage And Transportation Casks containers

- Foreign Experience In Extended Dry Storage Of Spent Nuclear Fuel
- Spent Fuel Integrity During Dry Storage
- Spent Nuclear Fuel Dry Cask Storage Requirements For Yucca Mountain And Available Margin
- Radiation Imaging Of Dry Storage Casks For Spent Nuclear Fuel