



January 3, 2018

Licensing Assistance Team
Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission, Region I
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

Dr. 2

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**U.S. Nuclear Regulatory Commission
Application for Materials License
Permit Renewal # 47-25421-01 Application Packet**

Dear Assistance Team,

I am submitting today a permit renewal application for license number #47-25421-01, please find attached the completed application form NRC 313 and associated supporting documentation. If you require any additional information or have questions, contact Jeffrey Todd or myself at (304) 742-5180

Sincerely,

JELD-WEN, Inc.

Jay Borrell
Plant Manager

602155
DIVISION MATERIALS SAFETY



**APPLICATION FOR
MATERIALS LICENSE**

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE CURRENT VOLUMES OF THE NUREG-1556 TECHNICAL REPORT SERIES ("CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES") FOR DETAILED INSTRUCTIONS FOR COMPLETING THIS FORM: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/>. SEND TWO COPIES OF THE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

MATERIALS SAFETY LICENSING BRANCH
DIVISION OF MATERIAL SAFETY, STATE, TRIBAL AND RULEMAKING PROGRAMS
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

IF YOU ARE LOCATED IN:

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING,

SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
1600 E. LAMAR BOULEVARD
ARLINGTON, TX 76011-4511

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- A. NEW LICENSE
 B. AMENDMENT TO LICENSE NUMBER
 C. RENEWAL OF LICENSE NUMBER

47-25421-01

2. NAME AND MAILING ADDRESS OF APPLICANT (Include zip code)

JELD-WEN, Inc.
500 JELD-WEN Rd
Craigsville, WV 26205

3. ADDRESS WHERE LICENSED MATERIALS WILL BE USED OR POSSESSED

500 JELD-WEN Rd
Craigsville, WV 26205

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Jay Borrell

BUSINESS TELEPHONE NUMBER
(304) 742-5180

BUSINESS CELLULAR TELEPHONE NUMBER

BUSINESS E-MAIL ADDRESS
jborrell@jeldwen.com

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSE FEES (Fees required only for new applications, with few exceptions*)
(See 10 CFR 170 and Section 170.31)

FEE
CATEGORY

AMOUNT
ENCLOSED \$

*Amendments/Renewals that increase the scope of the existing license to a new or higher fee category will require a fee.

PER THE DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), YOU ARE REQUIRED TO PROVIDE YOUR TAXPAYER IDENTIFICATION NUMBER. PROVIDE THIS INFORMATION BY COMPLETING NRC FORM 531: <https://www.nrc.gov/reading-rm/doc-collections/forms/nrc531info.html>.

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 37, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Jay Borrell - Plant Manager

SIGNATURE

DATE

1-4-18

FOR NRC USE ONLY

| TYPE OF FEE | FEE LOG | FEE CATEGORY | AMOUNT RECEIVED | CHECK NUMBER | COMMENTS |
|-------------|---------|--------------|-----------------|--------------|----------|
| | | | \$ | | |
| APPROVED BY | | | | DATE | |



5. Radioactive material

5a. Element and Mass Number: Cesium-137

5b. Chemical and/or Physical Form: Sealed sources. See attached radiation safety program.

5c. Maximum Amount Stored: 20 millicuries, 10 millicuries in 2 containers.

6. Purpose for which licensed material will be used: The material is located at a wood fiber door skin production facility. A pressurized steam digester is used to reduce wood chips to wood fibers. The radiation source is used to determine the level of wood chips in the refiner.

7. Individual responsible for radiation safety program and their training experience: Jay Borrell is the facility plant manager and is trained as a radiation safety manager.

8. Training for individuals working in or frequenting restricted areas: No restricted areas exist at this facility.

9. Facilities and equipment: The only equipment with a radiation source on-site is the refiner described in item 6.

10. Radiation Safety Program: See attached radiation safety program documentation.

11. Waste Management: No waste is associated with this radiation source.

JELD-WEN WOOD FIBER DIVISION -WEST VIRGINIA RADIATION SAFETY PROGRAM

JELD-WEN Wood Fiber Division - West Virginia is a licensed user of industrial radiation sources for process control and measurement. This packet will summarize our Radiation Safety Program (RSP) as well as include new employee/annual training, lockout procedures, and safety hazards procedures.

RSP SUMMARY

1) Who is in charge?

The Plant Manager and the plant Radiation Safety Officer (RSO) are responsible for the training and procedures regarding radiation source equipment. The RSO (Jay Borrell) and the Plant Manager should be contacted for questions regarding this equipment.

2) Where is the equipment located?

We have two radioactive sources in shielded source containers on the west side of the digester in the powerhouse.

3) Who can use the material?

The operators of the equipment and the management team shall be defined as the equipment users and will receive more training than other plant employees, specifically regarding lockout procedures, shutter operation, and emergency procedures.

4) What can a user do?

A user may only use the equipment for operation of production lines and operate shutter mechanisms.

5) Who should be trained?

All plant employees will be trained in radiation safety and emergency procedures on an annual basis. New employees shall be trained by their Group Manager on equipment location, safety, and emergency procedures. Persons defined as users shall receive additional training.

6) Lockout Procedures

Lockout procedures and vessel entry are covered in the lockout section of this packet. Shutter operations should be supervised by a Group Manager. Vessel entry **must** be supervised by the RSO or Plant Manager.

7) Emergency Procedures

Specific emergency procedures are covered in the emergency procedure section of this packet.

8) Maintenance and Operating Procedures

This does not mean that we can work on source devices. We are not licensed to do so and must contact the equipment manufacturer. Maintenance and operating procedures refer to radiation safety test and physical inventories required by law as stated in our Radioactive Materials License. Leak Tests, Shutter checks, physical inventories, and field surveys **EVERY SIX MONTHS!** These must be performed by the plant RSO.

JELD-WEN WOOD FIBER DIVISION - WEST VIRGINIA RADIATION SAFETY TRAINING

The term radiation often will scare or intimidate people. Here, at JELD-WEN, we use radioactive isotopes in process control equipment basically for material measurement. We are licensed by the State of West Virginia to operate such equipment and must comply with certain regulations. Some of these include testing the equipment for leaks, checking isolation shutters, and field surveys. These tests are designed to help insure the safety of people working with the equipment and results are kept on file with the Radiation Safety Officer (Jay Borrell). We have two radiation sources in the plant at the digester level detector in the powerhouse.

The training manager will briefly explain why we use each source. The source holders are constructed with a lead or steel lined case with a hole or slit to let out a narrow beam of radiation directed at the ion chamber detector. Each source holder is equipped with a shutter. The shutter closes a lead door over the hole or slit to completely enclose the source.

Each new employee will be shown the location of each source during a plant tour. If during annual training an employee is unsure of equipment location he should see his supervisor. Each employee will also be shown the location of the shutter that renders each source safe. Locking the shutters closed when working near sources is part of our lockout procedure. The same lockout procedures will be applied to radiation sources as for any other hazardous equipment.

Damaged source holders could leak radiation. If personnel discover damaged, potentially damaged, or source equipment not mounted as shown in the plant tour they should stay well clear and report to their manager immediately. Note that fire could melt lead linings in the holder without apparent damage to the outer case.

In case of a Radioactive Material Emergency:

1. Evacuate the area
2. Rope off the area at least 20 feet from any possible source. Rope off a larger area if possible.
3. Post the barrier with "Radiation Warning" and "Keep Out" signs.
4. Reduce the spread of the source by turning off fans, turning off machinery, and by not spraying with water unless controlling fire.
5. Identify personnel possibly exposed to radiation.
6. Call the Fire Department at 911
7. Call the RSO and the Plant Manager.
8. The RSO will execute the duties and responsibilities specified by the Nuclear Regulatory Commission as appropriate.

RADIOACTIVE SOURCE EQUIPMENT **LOCKOUT PROCEDURE**

The radioactive source equipment lockout procedure should be applied as with any machinery lockout. The following steps should be taken with regard to lockout and vessel entry.

1. All entrances to vessels equipped with nuclear gauges will be locked to prevent unauthorized entry into the vessel.
2. Personnel requiring entry into the vessels (i.e. digester) must contact the RSO or the Plant Manager before attempting to enter these vessels for any reason.

RSO: Jay Borrell

Plant Manager: Jay Borrell (304)-619-3510

3. Upon notification of a need to enter the vessel, only the RSO will lock the shutter mechanism in the shielded (“Off”) position. Then, only the RSO will conduct a radiation safety survey, with a survey meter, to verify that the sources are shielded. Written documentation will be made of the survey results. The source shutter must remain in this position until all work is completed in the vessel and it is verified that all personnel are out.
4. Confined Space Entry Procedures must be reviewed/applied depending on work to be completed.
5. The source shutter may not be returned to its operating (“Open”) position until all vessel entrances have been closed and re-locked.

In the Event of an Emergency

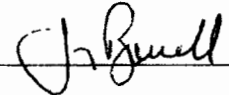
1. Evacuate the area immediately.
2. Rope off the area at least 20 feet from the sources.
3. Post the area with “Radiation Warning” and “Keep Out” signs.
4. Reduce the spread of the source by turning off fans, machinery, and by not spraying water unless fighting fire.
5. Identify personnel possibly exposed.
6. Call the Fire Dept. at 911
7. Call the RSO/Plant Manager Jay Borrell (304)-619-3510

RADIATION PROTECTION PROGRAM AUDIT CHECKLIST JELD-WEN FIBER WEST VIRGINIA

I. INTRODUCTION

This form documents performance of the annual radiation protection program audit. The audit consists of a review of the program's content and implementation, evaluating it's effectiveness in complying with regulatory requirements and keeping radiation exposures to workers and the general public as low as reasonably achievable (ALARA). Records of annual audits must be available for inspection by the agency.

Licensee: JELD-WEN
License No.: 47-25421-01 Date of Audit: 10-12-2017

Auditor (name, title)(signature) Jay Borrell Plant Manager 

Management Review: (name, title)(signature) _____

II. AUDIT HISTORY

A. Last audit conducted on (date): 4-22-2016

B. Any deficiencies noted: no

C. Were corrective actions taken? n/a

D. Brief description of prior deficiencies, corrective actions taken: _____

III. ORGANIZATION AND SCOPE OF PROGRAM

- A. If the mailing address or permanent address changed, has the license been amended to reflect the change? N/A Yes No
- B. If ownership has changed or bankruptcy has been filed, was the agency notified? N/A Yes No
- C. Does the license authorize all sources & devices possessed? Yes No
- D. If no to A., has the agency been notified? Yes No
- E. If the RSO has changed, has the license been amended to identify the new RSO? N/A Yes No
- F. Is the RSO meeting the duties & responsibilities for the position? Yes No
- G. Is company management appropriately involved with the radiation protection program & oversight of the RSO's activities? Yes No
- H. Does RSO have sufficient time to perform all duties/responsibilities? Yes No
- I. Staffing sufficient to support to rad. protection program? Yes No

IV. TRAINING PROGRAM

- A. Are workers likely to exceed 100 mrem/yr provided radiation awareness training?..... Yes No
- B. Have gauge Authorized Users (AUs) completed approved training? *N/A* Yes No
- C. Hazmat employee training provided to workers per 49 CFR Part 172? Yes No
- D. Field observations of operators demonstrate use of safe work practices & compliance with regulatory requirements? *N/A* Yes No

V. PERSONNEL MONITORING (PM)

- A. If PM is conducted? _____ (If not, skip to Section V *No PM*)
- 1. PM badges worn properly & protected from heat, light, moisture & chemicals when not being worn? Yes No
 - 2. PM badges consistently stored with the control badge in a protected location when not in use?..... Yes No
 - 3. Are badges exchanged in a timely fashion to ensure accurate dosimetry reports?..... Yes No
 - 4. Any badges lost or damaged?..... Yes No
 - 5. Are dosimetry reports reviewed by the RSO upon receipt? Yes No
 - 6. Are PM records maintained on NRC-issued or equivalent forms? Yes No
 - (a) NRC Form NRC-4 "Cumulative Occupational Exposure History" or equivalent completed for each monitored worker?..... Yes No
 - (b) NRC Form NRC-5 "Occupational Exposure Record for a Monitoring Period" or equivalent completed for each monitored worker? Yes No
 - 7. Upon hiring, female workers provided instructions regarding radiation risk to embryo/fetus and procedure for declared pregnancies, and documentation of receipt of instructions maintained on file?..... *N/A* Yes No
 - 8. Female workers declaring pregnancy document their declaration, are provided instructions regarding monitoring and limiting the dose to the embryo/fetus, and receipt of instructions documented?..... *N/A* Yes No
 - 9. For workers that have declared pregnancies, records kept demonstrating embryo/fetus dose < 50 mrem for gestation period? *N/A* Yes No
 - 10. Annual & termination reports provided to workers per 64E-5.903?..... Yes No
 - 11. PM records reviewed from (*dates*): _____ to _____
 - 12. Highest annual dose: _____ mR Date: _____
 - 13. Occupational exposures within limits? Yes No
 - 14. Do PM records indicate that worker doses are being kept ALARA? Yes No

V. PERSONNEL MONITORING (PM)

B. If PM is not conducted:

- 1. Has a request for an exemption been submitted & approved by the agency? Yes No
- 2. Have licensed activities changed during the year to increase workers' radiation exposures (i.e., expanded work load)? Yes No
- 3. If yes to 2., has a new evaluation been performed to demonstrate workers' doses are likely to remain < 500 mrem/yr? Yes No

VI. POSTING AND LABELING

A. Following documents posted at facility:

- 1. Emergency procedures Yes No
- 2. "Notice to Employees" Yes No
- 3. Any notice of violations, proposed imposition of administrative penalties, and agency issued orders and responses to the cited violations Yes No
- 3. Company radioactive materials license, and company operating procedures unless a notice (such as the "Notice to Employees" form) is posted that identifies the documents and where they can be viewed Yes No

B. Above documents posted in conspicuous location(s) to permit workers to observe them on way to/from work? Yes No

C. Radiation signs:

- 1. "Caution (or Danger), Radioactive Material" signs: posted at permanent facility & job sites where portable gauging devices are stored?..... Yes No
- 2. "Caution (or Danger), Radiation Area" signs: Is manufacturers' information kept on file to demonstrate that device's radiation levels are too low to require posting of radiation area signs around storage areas? *NA* Yes No

D. Portable gauging devices bear durable, clearly visible labels w/ radiation symbol, "Caution (or Danger), Radioactive Material" warning, & sufficient information to permit individuals to avoid/minimize exposures? *NA* Yes No

VII. OPERATING AND EMERGENCY (O&E) PROCEDURES

- A. Any revisions to O&E procedures made that have not been reviewed & approved by the agency?..... Yes No**
- B. O&E procedures list correct phone numbers for RSO & the agency?..... Yes No**
- C. O&E procedures accompany portable gauges at all times?..... *NA* Yes No**

VIII. GENERAL RULES OF USE

- A. Management & RSO emphasize to workers importance of maintaining doses ALARA?..... Yes No**
- B. Field observations of workers conducted to evaluate performance? Yes No**
- C. Good work practices used by workers to minimize doses (i.e., time, distance, shielding, general use rules)?..... Yes No**

IX. LEAK TESTS

- A. Sealed sources leak tested at required intervals?..... 6 months..... Yes No
- B. Leak tests conducted by authorized personnel following procedures approved by the agency? Yes No
- C. Leak test records include all information required by the agency?..... Yes No
- D. Any sources found leaking, & if so, was the agency notified?..... N/A Yes No

X. GAUGE INVENTORY

- A. Receipt & transfer/disposal records maintained? Yes No
- B. Portable gauging devices physically inventoried at 6-month intervals? N/A..... Yes No
- C. Inventory records document all necessary information? Yes No

XI. GAUGE MAINTENANCE

- A. Copies of the manufacturer's operation/maintenance manuals maintained on file for reference?..... Yes No
- B. Manufacturer's procedures referenced & followed for routine cleaning & lubrication of portable gauging devices? Yes No
- C. Non-routine device maintenance performed in-house?..... Yes No
- D. If yes to C., is non-routine device maintenance conducted by authorized personnel following procedures approved by the agency? Yes No

XI. RADIATION SURVEY INSTRUMENTS

- A. If a survey meter is not possessed, are specific plans in place to have one available when needed?..... N/A Yes No
- B. If a survey meter is possessed:
1. Has the meter been approved by the agency?..... Yes No
 2. Is there access to an equivalent back-up meter when the primary meter is out for calibration/repair?..... Yes No
 3. Is the meter calibrated annually & after repair by a licensed vendor, & are calibration records maintained?..... Yes No

XII. RECORD KEEPING, NOTIFICATIONS & REPORTS

- A. All required documents maintained on file at permanent facility for duration specified by the agency?..... Yes No
- B. Did any incidents/emergencies occur since last audit? Yes No
- C. If yes to B., was the response appropriate? (i.e., operator followed emergency procedures, required notifications/reports timely filed, cause of incident investigated, corrective actions taken & documented? Yes No

XIII. INDEPENDENT AUDITS/INSPECTIONS

- A. Any independent audits/inspections conducted since last internal audit (e.g., consultant or FL BRC inspection)?..... Yes No

B. If yes to A., summary of deficiencies identified & corrective actions taken:

XVIII. AUDIT DEFICIENCIES & CORRECTIVE ACTIONS

A. Summary of problems/deficiencies identified during this audit:

- None

B. Description of corrective actions planned or taken:

C. Description of other recommendations for improvement:

OHMART VEGA

Jay Borrell

Jeld-Wen Fiber of NC Marion, North Carolina

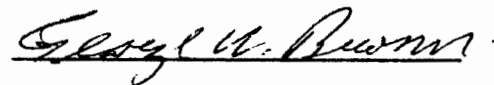
Has successfully completed the
Ohmart Radiation Safety Course

June 9 - June 13, 1997

Presented at Ohmart Corporation

Subject matter covered:

Basic atomic theory
Measurement and monitoring techniques
Exposure calculations
Biological effects of radiation
NRC regulations
Leak test, shutter check
Installation, relocation, and removal procedures
Hands on lab work
Proper disposal practices
Emergency procedures



George W. Brown
Radiation Safety Officer
Training Manager

OHMART Corporation

Technical Training Schools, Cincinnati, Ohio 45209