

<u>SUBJECT</u>		<u>DATE</u>
1253. Used Oil Filter Regulation – The Feds vs. Washington State	ENCORE	NOV 16, 2017
1254. PCB Radioactive Wastes and Exception Reporting	ENCORE	NOV 21, 2017
1255. Satellite Accumulation Requirements and Container Inspections	ENCORE	NOV 30, 2017
1256. Disposing of PCB Ballasts with PCB Potting Material	ENCORE	DEC 7, 2017
1257. Fluorescent Light Ballasts and PCB Annual Reporting		DEC 14, 2017
1258. 'Twas the Night Before Christmas – The Twenty-Fifth Annual Edition		DEC 21, 2017
1259. The Purpose of Keeping Containers Closed Except When Adding or Removing Wastes	ENCORE	DEC 28, 2017
1260. Satellite Accumulation and Product Vessel Cleanouts	ENCORE	JAN 4, 2018
1261. Conservative Declaration that Material is a Hazardous Waste	ENCORE	JAN 11, 2018
1262. Defining Criteria for Household Waste Exclusion	ENCORE	JAN 18, 2018
1263. The Household Waste Exclusion and Renovation Debris	ENCORE	JAN 25, 2018
1264. The Household Waste Exclusion and Renovation Debris – Part II	ENCORE	FEB 1, 2018
1265. The Mixtures Rule – Washington State vs. The Feds	ENCORE	FEB 8, 2018
1266. Spent Lead-Acid Batteries and Secondary Containment	ENCORE	FEB 15, 2018
1267. Spent Lead-Acid Batteries and Accumulation Time Limits	ENCORE	FEB 23, 2018
1268. CERCLA Hazardous Substances – A Brief Definition	ENCORE	MAR 1, 2018
1269. Radioactively Contaminated Lead-Acid Batteries and Hazardous Debris	ENCORE	MAR 8, 2018
1270. RCRA Treatment and the Two-Part Definition	ENCORE	MAR 15, 2018
1271. Who Wants to be a Generator!!!	ENCORE	MAR 22, 2018
1272. Who Wants to be a Generator Part 2!!!	ENCORE	MAR 29, 2018
1273. "No Smoking" Signs and Tobacco-Free Facilities		APR 5, 2018
1274. Aqueous Solutions and the Characteristic of Corrosivity	ENCORE	APR 12, 2018
1275. Aqueous Solutions and the Characteristic of Ignitability	ENCORE	APR 19, 2018
1276. PCB Bulk Product Wastes and the One Year Disposal Requirement	ENCORE	APR 26, 2018
1277. PCB Radioactive Wastes and Exception Reporting	ENCORE	MAY 3, 2018
1278. TSCA/PCB Determinations for Fluorescent Light Ballasts via the Manufacture Date	ENCORE	MAY 10, 2018
1279. RCRA Liquids, Free Liquids, and Releasable Liquids	ENCORE	MAY 17, 2018
1280. Satellite Accumulation Areas and the Three-Day Time Limit for Excess Accumulation		MAY 24, 2018
1281. Satellite Accumulation of Aerosol Cans and Determining the 55-Gallon Limit	ENCORE	MAY 31, 2018
1282. Universal Waste and Basis for the One Year Accumulation Time Limit	ENCORE	JUN 7, 2018
1283. F001 Degreaser versus F002 Solvent	ENCORE	JUN 14, 2018
1284. Hazardous Waste Determinations and Phase Separation	ENCORE	JUN 20, 2018
1285. PCB Certificates of Disposal and Manifesting Between Related Facilities		JUN 28, 2018
1286. PCB Concentrations and 10,000 PPM	ENCORE	JUL 5, 2018
1287. PCB Concentrations and 1,000 PPM	ENCORE	JUL 12, 2018
1288. Satellite Accumulation Containers and the Date of Accumulation Marking		JUL 19, 2018
1289. Satellite Accumulation Requirements in Washington State	ENCORE	JUL 26, 2018
1290. Satellite Accumulation Areas and Under the Control of the Operator		AUG 2, 2018
1291. Exceptions to Free Liquids in Landfills Prohibition	ENCORE	AUG 9, 2018
1292. Ampules and the Exception to Free Liquid in Landfills Prohibition		AUG 16, 2018
1293. Overpacks vs. Salvage Drums	ENCORE	AUG 23, 2018
1294. Universal Wastes - Recycling versus Disposal	ENCORE	AUG 30, 2018
1295. Universal Waste One Year Accumulation and Multiple Handlers	ENCORE	SEP 6, 2018
1296. Universal Waste and Multiple Handlers at One Facility		SEP 13, 2018
1297. Universal Waste, Satellite Accumulation and Centralized Collection Areas		SEP 20, 2018
1298. Available Regulatory Relief from Underlying Hazardous Constituent (UHC) Requirements	ENCORE	SEP 27, 2018
1299. Satellite Accumulation and the One Year LDR Prohibitions on Storage	ENCORE	OCT 4, 2018
1300. Purpose of the ≤90-day Hazardous Waste Accumulation Conditional Exclusion	ENCORE	OCT 11, 2018
1301. Regulatory Status of Used Oil Mixed with Diesel Fuel		OCT 18, 2018
1302. <b>Recyclable Chemicals and Zombie Destruction</b>	<b>ENCORE</b>	OCT 25, 2018
1303. Empty Containers and the "Empty" Label		NOV 1, 2018
1304. Manifest Exception Report Submittal Timeframes – RCRA vs. TSCA		NOV 8, 2018
1305. Smoke Detector Disposal and the NRC	ENCORE	NOV 15, 2018

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## TWO MINUTE TRAINING

**TO:** CH2M HILL PLATEAU REMEDIATION COMPANY

**FROM:** PAUL W. MARTIN, RCRA Subject Matter Expert  
CHPRC Environmental Protection, Hanford, WA

**SUBJECT:** SMOKE DETECTOR DISPOSAL AND THE NRC

**DATE:** NOVEMBER 15, 2018

<u>CHPRC Projects</u>	<u>CH PRC - Env. Protection</u>	<u>MSA</u>	<u>Hanford Laboratories</u>	<u>Other Hanford Contractors</u>	<u>Other Hanford Contractors</u>
Richard Austin Tania Bates Rene Catlow Richard Clinton Larry Cole John Dent Lorna Dittmer Eric Erpenbeck Stuart Hildreth Mike Jennings Stephanie Johansen Sasa Kosjerina Melvin Lakes Richard Lipinski Jim McGrogan Stuart Mortensen Dave Richards Phil Sheely Connie Simiele Jennie Stults Jeff Westcott Jeff Widney	Bob Bullock Bill Cox Laura Cusack Jim Leary Anthony Nagel Linda Petersen Fred Ruck Ray Swenson Wayne Toebe Daniel Turlington Dave Watson	Brett Barnes Jerry Cammann Jeff Ehlis Garin Erickson Panfilo Gonzalez Jr. Dashia Huff Mark Kamberg Jon McKibben Saul Martinez Jon Perry Christina Robison Lana Strickling Lou Upton	(TBD)  <u>DOE RL, ORP, WIPP</u>  Mary Beth Burandt Duane Carter Cliff Clark Tony McKarns	Bill Bachmann Dean Baker Scott Baker Lucinda Borneman Paul Crane Tina Crane Ron Del Mar John Dorian Mark Ellefson Tom Gilmore Rob Gregory James Hamilton Andy Hobbs Ryan Johnson Megan Lerchen Charles (Mike) Lowery Michael Madison Terri Mars Cary Martin Grant McCalmant Steve Metzger Tony Miskho Matt Mills Tom Moon Chuck Mulkey Kirk Peterson	Jean Quigley Dan Saueressig Merrie Schilperoort Joelle Moss Glen Triner Greg Varljen Julie Waddoups Jay Warwick Ted Wooley

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## TWO MINUTE TRAINING

**SUBJECT:** Smoke Detector Disposal and the NRC

**Q:** A customer has assorted aging American-made (domestic) smoke detectors that are destined for replacement. What disposal options are available to the customer for smoke detectors that contain a radioactive source such as americium?

**A:** Per a Nuclear Regulatory Commission (NRC) letter, domestically manufactured smoke detectors do not require an NRC license and are considered exempt items as described at [10 CFR 30.20](#). These exempt items may be disposed of as ordinary trash. The letter also discusses imported smoke detectors and states that owner must return these smoke detectors to the manufacturer.

Owners should note that even though disposal as ordinary trash is a compliant disposal option for domestically manufactured smoke detectors - it still might not be a viable disposal option. A facility's waste destined for a municipal landfill as ordinary trash, could be radioactively screened for prohibited items. If the landfill identified any waste items as "radioactive", the public reaction and the political "fallout" could be significant.

Therefore, the customer basically has three options for disposal of domestic smoke detectors:

- Return discarded smoke detectors to the manufacturer, or
- Dispose in a permitted low level radioactive landfill, or
- Dispose as ordinary trash.

### SUMMARY:

- Discarded smoke detectors (American) are NRC exempt and should be disposed:
  - ▶ By returning to the manufacturer, or
  - ▶ As low level radioactive waste, or
  - ▶ As ordinary trash.

The NRC memo, 10 CFR 30.20, and a list of manufacturer take-back programs are attached to the e-mail. If you have any questions, please contact me at [Paul\\_W\\_Martin@rl.gov](mailto:Paul_W_Martin@rl.gov) or at (509) 376-6620.

**FROM:** Paul W. Martin

**DATE:** 11/15/18

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## TWO MINUTE TRAINING – ATTACHMENT

**SUBJECT:** Smoke Detector Disposal and the NRC

### Disposal Requirements for Specific and Exempt Licensed Smoke Detectors

[HPPOS-150](#)

PDR-9111220094

*(Date Unknown)*

Title: Disposal Requirements for Specific and Exempt Licensed Smoke Detectors

See letter ([Record #150](#)) from J. W. N. Hickey to D. L. Tremblay (Simplex Time Recorder Company), 10/5/81.

Imported smoke detectors possessed under a specific license must be returned to the manufacturer. A licensee who possesses detectors distributed as exempt items is exempt from regulatory requirements regarding the smoke detectors, and they may be disposed of as ordinary trash.

Your letter to General Counsel dated September 8, 1981 has been referred to the Division of Fuel Cycle and Material Safety. In our telephone conversation, you explained that your company possesses two types of smoke detectors: those imported, possessed, and distributed in accordance with NRC License Nos. 20-17584-01 and 20-17584-02E, and those obtained from an American manufacturer as exempt units.

We agreed that the imported detectors must be returned to the manufacturer in accordance with your licenses, and that your letter concerns the domestic units. To the extent that you possess domestic smoke detectors distributed as exempt units, you are exempt from any regulatory requirements. Therefore, you may dispose of these units as ordinary trash.

Regulatory references: 10 CFR 30.20, 10 CFR 32.26

Subject codes: 3.3, 9.0

### 10 CFR 30.20 Gas and aerosol detectors containing byproduct material.

(a) Except for persons who manufacture, process, produce, or initially transfer for sale or distribution gas and aerosol detectors containing byproduct material, any person is exempt from the requirements for a license set forth in section 81 of the Act and from the regulations in parts 19, 20, 21, and 30 through 36 and 39 of this chapter to the extent that such person receives, possesses, uses, transfers, owns, or acquires byproduct material in gas and aerosol detectors designed to protect health, safety, or property, and manufactured, processed, produced, or initially transferred in accordance with a specific license issued under §32.26 of this chapter, which license authorizes the initial transfer of the product for use under this section. This exemption also covers gas and aerosol detectors manufactured or distributed before November 30, 2007, in accordance with a specific license issued by a State under comparable provisions to §32.26 of this chapter authorizing distribution to persons exempt from regulatory requirements.

(b) Any person who desires to manufacture, process, or produce gas and aerosol detectors containing byproduct material, or to initially transfer such products for use under paragraph (a) of this section, should apply for a license under §32.26 of this chapter and for a certificate of registration in accordance with § 32.210 of this chapter.

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## TWO MINUTE TRAINING – ATTACHMENT

**SUBJECT:** Smoke Detector Disposal and the NRC

### Smoke Detectors

There are two common types of smoke detector: ionization and photoelectric.\* Photoelectric smoke detectors contain no radioactive components and can be disposed of in regular household waste without condition. Ionization smoke detectors operate by using a very minute amount of the radioactive isotope americium-241 (Am-241) to detect particles in the air.\*\* While the Nuclear Regulatory Commission permits the disposal of these smoke detectors in regular household waste, there are take-back programs offered by manufacturers. Please see the listings below for more information on the various take-back programs.

<p><u>American Sensors/Dicon Global</u> 800-387-4219 Call to receive a number and return information. Accepts American Sensors/Dicon Global brands only.</p>	<p><u>Kidde</u> 800-880-6788 x1 1016 Corporate Park Dr Mebane, NC 27302 Accepts Kidde brand only.</p>
<p><u>Firex</u> 800-445-8299 Firex c/o Disposal 28C Leigh Fisher Blvd El Paso, TX 79906 <a href="http://www.firexsafety.com">http://www.firexsafety.com</a></p>	<p><u>Sears</u> 509-736-5630 Call Sears for take-back information.</p>
<p><u>First Alert/BRK</u> 800-323-9005 x2 Customer Service Department 3920 Enterprise Ct Aurora, IL 60504 Accepts up to four (4) devices of the First Alert/BRK brand at a time. Call ahead for mailing instructions.</p>	<p><u>System Sensors</u> 800-736-7672 x1  Call to receive a reference number and return information. Accepts System Sensor brand only. Asking for payment of \$3.00 per unit for recycling costs.</p>
<p><u>GE Security/ESL</u> 888-437-3287 12345 SW Levetan Dr Tualatin, OR 97062 Accepts GE Security/ESL brands only</p>	<p><u>USI Electric/Universal</u> 800-390-4321 x1 Attn: Disposal Department 7A Gwynns Mill Ct Owings Mills, MD 21117</p>
<p><u>Honeywell Inc.</u> 800-328-5111 Returned Goods Dock 4-MN10-3860 1985 Douglas Dr N Golden Valley, MN 55422 <a href="http://www.eccustomer.com">http://www.eccustomer.com</a> Accepts Honeywell brand only.</p>	<p>Return only detectors that say "ionization" on the back. Enclose a note stating that the detector is being returned for recycling. Accepts USI Electric/Universal brands only.</p>

\*By law, smoke detectors with Am-241 are required to have warning labels on them. This label is usually located on the back of the unit, on the mounting surface. The label will either be a printed warning or have the universal radiation symbol. If there is evidence that a label has been damaged or removed from the back of a unit, manage the unit as an ionization smoke detector.

\*\*Please note that the amount of Am-241 is very small (one gram can be used to produce over three million smoke detectors) and that the radiation emitted is much lower than the background radiation you are exposed to every day. The risk posed by fire is much greater than the risk posed by the smoke detector. In order to provide further protection, however, it is recommended that you do not disassemble an ionization smoke detector.

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