

May 4, 2010

**PUBLIC COMMENTS AND RIDEM RESPONSES  
REGARDING 2010 AMENDMENTS to the RULES AND REGULATIONS FOR  
HAZARDOUS WASTE MANAGEMENT**

The following are a compilation of comments received in writing (including email). In the interest of brevity, greetings and salutary remarks were deleted, comments were numbered, and formatting was made consistent. Also when more than one issue was discussed, the issues were numbered. The Department's responses are shown in red and italicized.

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The Department has reviewed the following comments and has, where appropriate made changes to the Regulations as explained in the responses. These changes represent either clarifications or changes to accommodate specific situations. The Department has determined that none of the rule changes constitute a major change to the Draft Regulations that were issued for public hearing on March 18, 2010.

**Comment#1: Charles Hopkins, Complete Recycling Solutions, LLC**

Looking at this quickly I did not see anything that indicates how PCB lamps ballast should be handled. Usually spent fluorescent lamps and PCB ballast go hand in hand, might it be good to have a line that indicates how PCB lamp ballast should be handled in the State of RI. We get this question from many customers asking about RI Universal Waste and am sure you do as well. If there were a line item that stated RI's position on PCB light ballast (handled as a Hazardous Waste in RI with Waste Code Roo7) it might help generators handle these the per the RI Rules.

*This clarification will be included in the Universal Waste Section (13) of the Regulations.*

## **Comment #2: Peter Harley, Environmental Manager - National Grid**

[This comment was also made in person at the public hearing]

The Narragansett Electric Company (TNEC) d/b/a National Grid (National Grid) has prepared this letter to the Rhode Island Department of Environmental Management (the Department) to request inclusion of an exemption in the currently proposed revisions to the *Rules and Regulations for Hazardous Waste Management*, as amended February 9, 2007 (the Regulations). As a public utility company, National Grid's operations extend nearly statewide, as is the case for several other public utilities in the state. Day-to-day activities conducted by National Grid can result in the generation of hazardous waste at nearly limitless locations throughout the state. While the Regulations are well suited to manage wastes generated at fixed facilities, application of the Regulations to such state-wide operations can be challenging and costly.

At the present time, when hazardous waste is generated at a field location such as an electric manhole or natural gas "drip pot," National Grid maintains compliance with hazardous waste transportation regulations by using a contracted, licensed hazardous waste hauler to transport the waste to a disposal facility from the point of generation. On average, this practice has resulted in approximately 6 to 8 field pick-ups per month, with the approximate cost of each pick-up being \$300 to \$400. This equates to contractor costs of nearly \$40,000 annually, but the "hidden" costs that result from our utility crews "standing-by" to wait for the hazardous waste contractor may be even more significant. For many years and until recently, National Grid employed the alternative method of complying with hazardous wastes transport requirements – that is, securing a hazardous waste transport license and "Letters of Authorization" to transport and temporarily store our own hazardous wastes. Due to the significant burdens associated with maintaining these approvals and operating within their regulatory constraints (fully described in our July 31, 2009 letter to the Department), we have elected to no longer utilize this waste transport and management method. You may also recall that National Grid requested that the Department consider a utility "self-transport" policy for National Grid in letters to the Department dated December 12, 2002 and January 22, 2007.

Other states in New England have adopted self-transport regulations or policies. In Massachusetts, Policy #BWP-89-02 (updated October 2009) allows self-transport of hazardous wastes from a site where such wastes are not generated in quantities that exceed 100 kilograms (i.e., 220 pounds or approximately 27 gallons) in a single month. Similarly, in Vermont, Conditionally Exempt Generators (CEGs) are allowed to self-transport hazardous wastes from a remote location to a facility owned and operated by the same entity as the CEG (§ 7-306[c][3]). In New Hampshire, Env-Hw 601.02(b) exempts small-quantity generators who transport 55 gallons or less of their own hazardous waste from hazardous waste transporter requirements. Federal regulations exempt Conditionally Exempt Small-Quantity Generators (CESQGs) from hazardous waste transporter requirements (40 CFR 261.5[b]) – an exemption that many states have adopted. The quantities of hazardous wastes generated at most National Grid field

service locations are limited, and many could theoretically be categorized as a CESGQ, based on federal generation thresholds. Additionally, beyond the RCRA regulations, 40 CFR 761.207 allows for the self-transport and consolidation of polychlorinated biphenyl (PCB) wastes without the need for hazardous waste manifesting.

National Grid requests a revision of Rule 6.1(A) of the proposed regulations, which documents hazardous waste transport activities that do not require a permit. Specifically, we would like the following text to be added:

9. *The transportation of 55 gallons or less of hazardous wastes generated at a field service location by a public utility to a generator-owned or operated facility that has an existing U.S. EPA Identification Number for the generation of hazardous waste. No hazardous waste manifest shall be required for this activity.*

It is National Grid's opinion that incorporation of such an exemption would not result in activities or conditions that would increase the potential for harm to the environment or result in a risk to human health. The exemption would limit the allowable quantities for self-transport to similar quantities allowed by other New England states as well as federal regulations. Additionally, adoption of the exemption would result in cost savings that will ultimately benefit ratepayers in the state.

We have contacted other public utilities and entities in the state that could benefit from such an exemption, including the Providence Water Supply Board, the Narragansett Bay Commission, the Pascoag Utility District, Block Island Power Company, and Verizon. All are in general agreement that such an exemption would be a beneficial addition to the proposed regulations.

National Grid would sincerely appreciate feedback on this proposal and welcomes the opportunity to meet with you, if necessary. We are planning on attending, and commenting at, the informational workshop and formal public hearing for the proposed regulation amendments on March 18, 2010. If you require further information or have any questions, please contact either of the undersigned.

*The Department has considered this very limited exemption for transportation and manifesting and believes it to be reasonable given the unique situation of utilities. We do not believe it is necessary to specify that a manifest is not required for the activity because it is already exempted from being considered transportation, and like other exempt activities, does not require a manifest. After discussion with USEPA on this issue, the Department has also found it necessary to include language to specify the exemption only relates to PCB waste that is not hazardous for any other reason. This is so as not to create a situation where the Rhode Island Regulations are not less stringent than USEPA regarding transportation and manifesting requirements.*

**Comment #3: Michael G. Anderson, Manager/Senior Scientist- Eastman Kodak Company**

1. First, it is my understanding that the RI HW regulations closely mirror the federal regulations and that the UWR is not a stand-alone regulation, but rather a alternative management option as codified in 40 CFR 261.9. Essentially, it offers generators a more simplified approach to managing 'universal materials' provided they are first defined as a federal or state hazardous waste and the fate of the material is predicated on recycling (no disposal).

My question involves the definition of 'used electronics' as it is proposed in the January draft. The definition essentially applies to any CE/IT device regardless of whether it exhibits a characteristic or not. This is confusing to me, since the UWR was predicated on the fact that a solid waste (pursuant to 40 CFR Part 273) had to first meet the definition of a hazardous waste. Now bear in mind, I no expert on RI specific waste (R001-16).

Certainly, any electronic device that uses a Hg-containing backlight or lead solder would (most likely) exhibit a RCRA toxicity code (or relevant R-code . . . R001, R005 or R006) . . .but most devices that do not have displays and are compliance with the EU RoHS Directive would not exhibit a characteristic. This would include most audio/video devices, mobile phones and even displays with Xe lamps or LED technology.

I realize that the State is attempting to mesh the E-waste law with the UWR, but even that generates some questions. Under the existing E-waste law only a small subset of EEE are defines as covered electronic devices (CEDs). They essential capture IT devices and TVs and not the larger category of consumer electronic (CE) products. My question here is . . . does the statement, " . . . not exhibiting a hazardous waste characteristic" refer to any 'used electronic' device or only those 'used electronic' devices that would otherwise be captured under the RIDEM definition of a hazardous waste.

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2. I'm still working through some of the understandings of the spent photographic fixer' inclusion. This is a unique one, given DEMs interpretation of the PME and rejection of the SQG and HHHWE. My initial take is this change may be favorable for instate generators who treat fixers. If my UWR recollections are correct, labs that generate spent fixers in RI would not have to register as generators (RCRA 3010), except as noted by the SQHUWR requirements. This, in turn would eliminate the need to manifest and other generator standards. The problem arises when (if ) fixer is shipped interstate and the UWR is no longer applicable and the SQHUWR must now secure a EPAID# and manifest the waste (either as a PME or otherwise). I need to play around with this some more.

Thanks and I would appreciate your insights to the e-waste questions.

1. The question is raised concerning our language in Rule 13.2, “Used Electronics wastes must be managed as universal waste (or hazardous waste) whether or not they exhibit a hazardous characteristic.” RIDEM therefore is requiring all used electronic wastes to be managed as universal waste, regardless of their hazards or lack thereof, and can partly justify this requirement based on RIGL 23-24.10, “Electronic Waste Prevention, Reuse and Recycling Act”, which bans the disposal of various types of used electronic devices at solid waste facilities. Additionally, there are many other types of used electronic devices not included within the solid waste ban (that are not within the definition of covered electronic devices) that may or may not have a hazardous waste characteristic. Given that these devices rapidly become obsolete or replaceable in the ever changing electronics market, it would be a considerable challenge for generators and the Department to know which electronic devices are classified as a hazardous waste based on hazardous characteristics. Therefore the Department has chosen to regulate them conservatively as universal waste (also less burdensome to the generator, then regulating them as hazardous waste). Additionally, we have researched what regulators in other states are doing and many of them are regulating used electronic wastes similar to what we have shown in our draft regulations and are including a broad cross section of devices, similar to us, as being subject to such regulation. As explained in the Response to Comment #7 from Brown University, our definition as been modified to exempt white good and automobiles.
  
2. The commenter notes that RIDEM interprets the Precious Metals Exemption such that silver fixer does not meet the exemption if the silver content is worth less than the costs of managing the material. We believe however, that the silver fixer, while it loses the universal waste designation when it leaves the State of Rhode Island, is governed by the rules of the designation state. Therefore it is the Department’s belief that neither our interpretation of the Precious Metals Exemption nor the Universal Waste Designation affects its classification and management in another state. See also response to comments #5 and #7 regarding silver fixer issues.

#### **Comment #4: Tom Brandt- Rhode Island Army National Guard**

##### Comments on the Proposed RIDEM HW Regulations 2010

1. The definition of electronic waste needs to be written out in the HW Regulations per the *RIGL 23-24.10, "Electronic Waste Prevention, Reuse and Recycling Act"*, to help clarify the definition of universal waste handler
  2. Why is there no relief for CESQG or SQGs of HW, except for one industry (electroplating)? This is burdensome to small quantity generators who have only 90 days to have the waste picked up and transported off site.
  3. Completely eliminate the Type 1C- Slightly Toxic Waste (R001) definition. A 60% salt/40% water mixture is a HW according to this classification, (calculated at 5000mg/kg). This presents a massive burden to all HW generators.
    - Liquid wastes are prohibited at municipal landfills, so any liquid wastes would be dealt with via wastewater regulations or sent out as a non-haz waste.
  4. Section 4.3 Permit Variance; Does the department collect a fee for all of its cost associated with a permit variance from the requestor of the Permit Variance?
  5. Section 5.0 add a space between "and13.5E"
  6. Section 5.12 add an exemption for Federal, State, and Local Municipalities that would exempt them from this "fee."
  7. Section 6.4 (B)(4) why require liquid tight containers for all waste when it is allowed to ship in cardboard?
  8. Rule 15.0- Will off-spec diesel fuel ever be allowed to be managed as used oil if it is being sent for recycling?
    - Rule 15.1(C) (2) allows the mixing of diesel and used oil, but only if the resultant mix is not ignitable per Federal and State regulations.
    - It is a common waste stream that gets recycled through the same outlets as used oil. Why the extra management burden as a HW?
    - Especially on facilities that are already SPCC regulated and inspecting those containers on a monthly basis.
- 1. The definition of e-waste has been modified to be clearer, see discussion of comment #7 from Brown University.*

2. *This revision of the Regulations is focused primarily on Transporters and Facilities (Rules 6-12). The Department's next major effort will be to rewrite the Generator Regulations (Rule 5). The Department will take the comment into account for consideration of SQG and CESQG status in those revisions.*
3. *As stated above, this revision of the Regulations is focused primarily on Transporters and Facilities. The Department's next major effort will be to rewrite the generator rules (rule 5). The Department will take the comment into account for consideration of revision or deletion of Rhode Island Waste Codes.*
4. *Section 4.3 does not currently contain a fee for a permit variance to the regulations, no new fee is proposed.*
5. *Suggested change to Rule 5 has been made.*
6. *The current budgetary situation does not allow the Department to consider more fee exemptions at this time.*
7. *The regulations will be revised to indicate containers with liquids, must be liquid tight and that all containers should be free of leaks.*
8. *As per this rule (15.1(C)(2)) these regulations do allow these mixtures to be managed as used oil, under the 2 conditions provided, in a way that mirrors the federal requirements. As Rule 15 was not the focus of this round, the Department will consider this issue for the subsequent round of changes.*



**Comment #5: Kristina Richards, Project Manager- WOODARD & CURRAN INC.**

1. Rule 3.00, Definition of “Rhode Island Wastes,” Part N.8.  
The section states “Any used oil that meets the definition of a characteristic hazardous waste that is subject to disposal and not sent for recycling or any used oil that is designated by the generator as hazardous waste and not sent for recycling, shall be designated as an R010 waste.” The first part of the sentence is stating that any used oil that exhibits a characteristic of a hazardous waste and that is not recycled should be identified as an R010 state-regulated hazardous waste. Is this the intent of this rule, or is it RIDEM’s intent that a used oil that exhibits a characteristic of a hazardous waste and that is not sent for recycling should be designated with the waste number corresponding to the characteristic (e.g., D001, D007, etc.)? If it is the latter, we suggest changing this section to read: “Any used oil that is designated by the generator as hazardous waste and not sent for recycling, and that does not meet any of the criteria for characteristic or listed hazardous wastes in 40 C.F.R. 261 Subparts C and D or Rhode Island hazardous wastes identified with waste codes R001 through R007, shall be designated as an R010 waste.”
  
2. Rule 3.00- Definition of “Silver Containing Photo Fixing Solution”  
We suggest clarifying that the definition includes those silver-containing photo fixing solutions that fail the TCLP for silver and therefore meet the definition of hazardous waste code D011 (e.g., by changing the definition to read “Silver-Containing Photo Fixing Solutions shall mean photographic processing solutions containing silver that has been removed from photographic film and paper by the fixing agent, and that fail the TCLP (40 C.F.R. 261.24) for silver and therefore meet the definition of hazardous waste code D011.”)
  
3. Rule 13.3 B- Applicability, Silver-Containing Photo Fixing Solutions  
Silver-containing photo fixing solution wastes are precious metal bearing wastes. Precious metal bearing wastes may be managed in accordance with the provisions of 40 C.F.R. Part 266, Subpart F. To clarify that this is an alternative means of compliance, and to be consistent with similar language for batteries in 40 C.F.R. 273.2(b)(1), we recommend adding a sentence in Rule 13.3 that indicates that the requirements of 40 C.F.R. Part 273 and RIDEM Rule 13 do not apply to silver-containing photo fixing solutions that are managed under 40 C.F.R. Part 266 Subpart F.
  
4. Rule 13.2, 13.5 B, 13.5 C, 13.5 D, 13.5, H 3, 13.5 M 3  
For used electronics, batteries, mercury-containing equipment, and lamps, language has been added to indicate that these wastes must be managed as universal wastes whether or not they exhibit a hazardous characteristic (apparently to satisfy solid waste disposal bans). Imposing universal waste standards on nonhazardous wastes places an added burden on generators; it is not

necessary to require management as universal waste in order to satisfy the solid waste disposal ban. We recommend that language be included as a reminder to generators that these wastes are banned from solid waste disposal, but that they not be required to be managed in accordance with the universal waste regulations.

5. Rule 13.5 I, Labeling/Marking of Used Electronics

The proposed regulation requires labeling used electronic devices with the phrase “equipment that may contain mercury.” Some used electronics may not contain mercury, and may be hazardous waste due to the presence of other metals, such as lead. We recommend that the phrase be replaced with “used electronics.”

6. Our comments above primarily address the proposed changes to the hazardous waste regulations; we are also interested in suggesting changes to other portions of the hazardous waste regulations, such as those related to state-regulated waste, generator standards, and used oil regulations. We’d be interested in participating in any future work groups dealing with upcoming changes to the hazardous waste regulations. We appreciate your consideration of our comments. If you have any questions please feel free to contact us at (401)273-1007.

[Additional Comment received from the Same Commenter]:

7. In Rule 2.2B 18, RIDEM is proposing to delete the exception for manufactured gas plant (MGP) wastes from the TCLP rule. We suggest revising this language to include the exception with certain provisions, such as by revising the current parenthetical phrase in the federal regulation to read "(except manufactured gas plant remediation waste that is managed in accordance with applicable RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases and that is not disposed in a solid waste landfill)". We feel that this would be protective of human health and the environment and still allow some flexibility in the onsite management of such wastes during remediation activities, which doesn't easily fit within the hazardous waste management standards.

1. *This revision of the Regulations is focused primarily on Transporters and Facilities. The Department’s next major effort will be to rewrite the generator rules (rule 5) and will also consider the used oil regulations. The Department will consider this comment in those revisions.*
2. *The Department feels it is valid point that only photographic solutions failing TCLP for silver should meet the referenced definition and therefore has amended the definition accordingly.*
3. *Regarding classification of silver fixer in Rule 13.5B. Our language in Rule 13.5 B complies with the solid waste disposal ban on nickel-cadmium, mercuric-oxide, and lead-acid batteries, per RIGL 23-60.1-5, by requiring them to be managed as universal waste. Ultimately universal waste ends up at destination facilities where such waste is treated, disposed, or recycled (as per our Rule 3 definition section, where destination facility is defined), so we are allowing several options for the*

*final handling of such waste, including recycling (if there is a market for the recycling of a particular item and if it can be recycled). The Department has considered the issue regarding subpart F as it relates to silver fixer, but is not convinced that the precious metal content of photo fixer is great enough to meet the threshold of economically significant” because the waste generally has a negative value to the generator. However, if it could be demonstrated that this material meets the requirements of subpart F, the Department would recognize that. See also response to comment #1 from Eastman Kodak.*

4. *Regarding requirement to manage used electronics as universal waste. Our language in Rule 13.5C complies with the solid waste disposal ban in RIGL 23-24.9, since mercury-containing equipment in our regulations would qualify as a mercury-added product as defined in 23-24.9-3 and which is included in the solid waste disposal ban and we comply by requiring mercury-containing equipment to be managed as universal waste. Ultimately universal waste ends up at destination facilities where such waste is treated, disposed, or recycled (as per our Rule 3 definition section, where destination facility is defined), so we are allowing several options for the final handling of such waste, including recycling (if there is a market for the recycling of a particular item and if it can be recycled).*

*Our language in Rule 13.5D complies with the solid waste disposal ban in RIGL 23.24.9, since lamps would likely have mercury (or possibly other hazards) and as such would likely be included in the solid waste disposal ban on mercury-added products and we comply by requiring lamps to be managed as universal waste. Ultimately universal waste ends up at destination facilities where such waste is treated, disposed, or recycled (as per our Rule 3 definition section, where destination facility is defined), so we are allowing several options for the final handling of such waste, including recycling (if there is a market for the recycling of a particular item and if it can be recycled).*

*Our language in Rule 13.5 H3 and Rule 13.5 M3 defines what processing steps are allowed by intermediaries (small and large quantity handlers of universal waste) and provides guidance on safety issues relative to their disassembly actions. Although they are limited to some extent, in that they can not break, shred, crush, heat or treat such waste, ultimately these types of actions can be performed by the end facility in the universal waste spectrum, i.e., a universal waste destination facility, if such wastes are treated rather than disposed or recycled by such facility.*

*See also response to Comment#3 from Eastman Kodak.*

5. *The Department concurs that the wording “may contain mercury” does make labeling more confusing therefore we have substituted the language with “universal waste- used electronic devices not containing CRT’s. The Department added the phrase “not containing CRT’s as CRT’s are a separate classification of used electronics.*

6. *The Department will make note of the commenter's willingness to participate in revision of generator regulations.*
7. *The Department did not want to recognize the exemption because negating the TCLP test for MGP waste would be to ignore a chemical hazard simply because the origin of that waste was in MGP production. The Department also did not want to be bound by the seemingly circular reasoning that because MGP waste is not typically disposed of in landfills, TCLP testing was not relevant and therefore, the waste can be disposed of in landfills.*

*The Department met with this commenter and commenter #6 (John Hartley-GZA) about this issue. While in theory, this change does not affect the treatment of this material at out-of-state facilities, in reality, the comments convinced the Department that not recognizing the exemption would make off-site treatment of this waste significantly more costly. Therefore we have incorporated the exemption suggested above with the change that reads "that is not land disposed" instead of "not disposed in a solid waste landfill" so as to preclude land disposal at locations other than landfills.*

**Comment #6: John P. Hartley, Principal/District Office Manager- GZA GeoEnvironmental, Inc.**

GZA understands that the Department is contemplating certain changes to the Rules and Regulations for Hazardous Waste Management. We also understand that one of those changes would effectively eliminate the MGP waste exclusion that is incorporated in 40 C.F.R. 261.24(a).

As you may know, impacts at MGP sites are commonly widespread, with residual high concentration source materials commonly remaining in former MGP features and elsewhere. These conditions have resulted in impacts to soil in terms of UCL exceedances and groundwater exceedances of dissolved components, as well, as, the presence of LNAPL and DNAPL. Because of their complex nature, MGP wastes are generally not amenable to proven in-situ treatment technologies presently utilized at other contaminated sites. Consequently, source control through excavation and off-site recycling is a commonly accepted and effective remedial approach at MGP site. The more highly contaminated materials (i.e., product-level contamination) are generally disposed of hazardous wastes. Residually contaminated materials are commonly transported for recycling at permitted facility. Hence, the disposal of these materials are adequately regulated by existing regulations

The proposed changes to the regulation (removal of the MGP exclusion) would have significant implications in terms effective site remedies at MGPs. In essence, making source control effectively infeasible in terms of costs. Secondly, the exclusion unnecessarily burdens effective in-situ remediation alternatives (where applicable), as the design, installation and operation of such systems would require the application for and the issuance of a temporary hazardous waste treatment permit (in addition to the preparation of a Remedial Action Work Plan and, in some cases, a UIC permit and the issuance of an Order of Approval). This has implications in the department's efforts to "streamline" the permitting process.

In summary, the proposed change, in our opinion, will significantly impact the ability to remediate, in a cost effective and timely manner, MGP sites in Rhode Island. There are presently seven major MCPs in RI; all in the investigation phase, and others that have yet to be investigated. Your proposed changes would have drastic effects on the ability to bring these facilities to regulatory closure.

Thank you and we urge you to consider these very practical and real issues in your decision making.

1. *See response to Comment #5.*

**Comment #7: Henry Huppert, Environmental Compliance Officer- Brown University**

Brown University respectfully submits comments and requests clarification regarding several aspects of the proposed revisions to the Rhode Island Rules and Regulations for Hazardous Waste Management.

1. The new universal waste definition for "used electronics" as defined in Section 3.0 is extremely broad. A plain reading of the definition seems to include nearly all items that contain a circuit board. We are not aware of items containing circuit boards that either do not store or transmit data. If the RIDEM's intention is to include all items containing a circuit board, that should be made clear in the definitions. If there is no intent to include all items that contain circuit boards, the definition would be clearer if the RIDEM provided examples of items that are not included in the regulatory definition of used electronics or provide clear guidance regarding what is included in the definition.

RIGL 23-24.10, as referenced in the applicability section in 13.2, clearly defines the scope of the electronics disposal ban. The proposed regulations requiring the management of used electronics as Universal Waste or Hazardous waste includes more items than covered by the state law. In RIGL 23-24.10, the definition of items banned from disposal is as follows:

*"Covered electronic products" means:*

- (i) Computers (including central processing unit or CPU) as defined herein*
- (ii) Computer monitors, including CRT monitors and flat panel monitors;*
- (iii) Combination units (CPUs with monitors);*
- (iv) Televisions including CRT-based and non-CRT-based televisions, plasma and LCD, or any similar video display device with a screen greater than nine (9) inches diagonally and that contains a circuit board; and*
- (v) "Covered electronic products" does not mean a computer, television or video display device that is: (a) a part of a motor vehicle or any component part of a motor vehicle assembled by, or for, a vehicle manufacturer or franchised dealer, including replacement parts for use in a motor vehicle; or (b) functionally or physically a part of, connected to or integrated within a larger piece of equipment designed and intended for use in an industrial, governmental, commercial, research and development, or medical setting, (including diagnostic, monitoring, or other medical products as that term is defined under the Federal Food, Drug, and Cosmetic Act) or equipment used for security, sensing, monitoring, or anti-terrorism purposes; or (c) contained within a home appliance, clothes washer, clothes dryer, refrigerator, refrigerator and freezer, microwave oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier, or air purifier; or (d) a handheld device used to access commercial mobile radio service, as such service is defined in 47 CFR 20.3, or (e) a printer as defined in subsection (ii) herein.*

The RIDEM has proposed to require the management of “Used Electronics” as either Universal Waste or hazardous waste. RIDEM’s proposed definition of “Used Electronics”, as defined below, is much broader than the RIGL 23-24.10 as defined below.

*“Used Electronics” or “a Used Electronic Device” shall mean a device or component thereof that contains one or more circuit boards or a cathode ray tube and is used primarily for communication, data transfer or storage, or entertainment purposes, including but not limited to, desk top and lap top computers, computer peripherals, monitors, copying machines, scanners, printers, radios, televisions, camcorders, digital cameras, digital picture frames, video cassette recorders (“VCRs”), compact disc (“CD”) players, digital video disc (“DVD”) players, MP3 players, video game consoles, portable Global Positioning System (“GPS”) navigation units, telephones, including cellular and portable phones, and stereos.*

Brown’s interpretation of the proposed definition is that it would require the management of all electronics that contains circuit boards that are used for data transfer or storage as universal or hazardous waste, which we believe encompasses nearly any item containing a circuit board. We feel strongly that this is an overbroad interpretation of the RI General Law. We request that the definition of Used Electronics be modified so the definition is clearer and uses the covered definition in RIGL 23-24.10.

2. Section 2.2 C.15 of the proposed regulations specifically removes circuit boards from management under the scrap metal exclusion and instead includes them only as universal waste. We anticipate that this will make it more difficult to appropriately recycle large appliances and devices that were typically covered under the scrap metal exclusion. Many appliances such as a refrigerator carcass or microwave oven contain small circuit boards for digital read outs or programming capabilities that store and transmit data. These appliances would normally be handled for recycling through the scrap metal exclusion but under the proposed used electronics definition would be required to be handled as universal waste.

We also believe the proposed change contradicts RIGL 23-24.10 which specifically excludes large appliances and research equipment with displays from the disposal ban. Businesses should have the option of managing large appliances and other used electronics through scrap metal recycling or as universal waste instead of eliminating them completely from the scrap metal exclusion because the end management of the waste is the ultimately the same.

3. Electronic components can contain other toxic recyclable materials other than mercury including selenium, lead, chromium, silver, or other chemicals. The proposed labeling requirements in Section 13.5 I.1.(2) for used electronic equipment as “equipment that may contain mercury” does not fully identify hazards and is potentially inaccurate. If the intent is to apply this labeling requirement to only items that may contain mercury, this should be clarified. Brown understands that including

all potential toxic materials in the labeling would be cumbersome, so we advocate a simpler labeling convention such as “Universal Waste - used electronics” or “Universal Waste - electronics for recycling” which are specifically defined terms in the proposed regulation.

4. Under 40 CFR 261.4(b)(4), the Environmental Protection Agency Federal defines Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste, generated primarily from the combustion of coal or other fossil fuels as a material that are “*Solid wastes which are not hazardous wastes*”. The EPA’s determination excludes these materials from the hazardous waste requirements. The proposed deletion of this exclusion from the state hazardous waste regulations in section 2.2 C. 12. is of concern as the result would be a small benefit to the environment compared with the large burden that would be placed on businesses by requiring the wastes to be managed in ways other than as solid waste.

Finalizing the proposed change would require businesses all over the state that burn any type of fossil fuel to collect these wastes and perform costly waste characterization of all ashes and slags produced from burning of fuels. Making this change would require that all business that burn any fossil fuel collect and characterize the ash/slag generated during boiler cleanings and potentially dispose of this material as hazardous waste. Compliance with this provision would significantly increase the cost of boiler cleanings. As a result, many businesses would simply reduce the frequency of boiler cleanings causing less safe operation of boilers, lower boiler efficiencies and causing greater amounts of pollution being emitted to the atmosphere.

This change would require the boiler/furnace cleaning services to leave ash behind to be characterized/disposed of by the businesses. Many businesses that are unaware of the nuances of the hazardous waste regulations would not understand the appropriate storage, characterization and management of these wastes required by the hazardous waste regulations. For Brown University this would essentially require us to set up hundreds of additional hazardous waste satellite accumulation areas (one near each boiler) and either separately characterize ash wastes generated from each boiler cleaning prior to disposal or assume they are hazardous wastes. We do not see this as a necessary or efficient solution for this waste stream.

Removing the federal exclusion for ashes and slag from boilers would severely limit the amount of ash that would be beneficially recycled and incorporated into usable product such as cement. No recycler will take ash for recycling from a RI business if it is characterized as hazardous waste, especially when they can get ash from surrounding states that do not have this characterization.

Brown believes the RIDEM should not delete the exclusion in 40 CFR 261.4(b)(4) from the state regulations. However, if RIDEM still believes that removing the Federal exclusion of this waste from the state hazardous waste regulations is



necessary, the ubiquitous nature of ash from the burning of fossil fuels should clearly lead to the finding that it should be managed as Universal Waste.

5. In Section 2.2 C.17 and according to the definition in section 3.0, only silver containing photo fixing solutions used to remove silver with the fixing agent are being included as universal waste. We have found that many other solutions involved in photoprocessing also contain significant amounts of silver. Specifically, used developers, stop baths, rinse waters, and other used photo processing liquids contain silver that can also be beneficially recycled. We currently send most of our silver containing solutions off-site as hazardous waste for recycling. Often these solutions are compatible and can be mixed together with the used fixing solutions prior to recycling. Under the proposed universal waste definitions, we would be required to handle very similar waste streams that are often generated at the same location differently. Specifically, fixers would be managed as universal waste and developers and other photoprocessing solutions as hazardous waste. We believe that this would provide multiple waste management scenarios that could confuse generators and apply different standards to very similar solutions. We suggest that other waste silver bearing solutions used in photoprocessing including, but not limited to, developers and stop baths also be included in the Universal Waste definition.
6. Brown University strongly supports the change in manifest mailing requirements proposed by the elimination of Section 5.3 D as an improvement that eliminates the redundancy of mailing manifest photocopies from generator to the generator state which removes a duplicative requirement of the cradle to grave system.

1. *The Department believes this comment regarding e-waste has merit, and therefore, we are modifying our definition of used electronics to exclude all items (except for printers) specifically exempted from the solid waste disposal ban, by the RIGL 23-24.10, such that our amended definition is as follows:*

*“Used Electronics” or “a Used Electronic Device” shall mean a device or component thereof that contains one or more circuit boards or a cathode ray tube and is used primarily for communication, data transfer or storage, or entertainment purposes, including but not limited to, desk top and lap top computers, computer peripherals, computer monitors, copying machines, scanners, printers, radios, televisions, camcorders, digital cameras, digital picture frames, video cassette recorders (“VCRs”), compact disc (“CD”) players, digital video disc (“DVD”) players, MP3 players, video game consoles, portable Global Positioning System (“GPS”) navigation units, telephones, including cellular and portable phones, and stereos. “Used Electronics” or a “Used Electronic Device” shall not mean a computer, television or video display device that is: (a) a part of a motor vehicle or any component part of a motor vehicle assembled by, or for, a vehicle manufacturer or franchised dealer, including replacement parts for use in a motor vehicle; or (b) functionally or physically a part of, connected to or integrated within a larger piece of equipment designed and intended for use in*

*an industrial, governmental, commercial, research and development, or medical setting, (including diagnostic, monitoring, or other medical products as that term is defined under the Federal Food, Drug, and Cosmetic Act) or equipment used for security, sensing, monitoring, or anti-terrorism purposes; or (c) contained within a home appliance, clothes washer, clothes dryer, refrigerator, refrigerator and freezer, microwave oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier, or air purifier; or (d) a handheld device used to access commercial mobile radio service, as such service is defined in 47 CFR 20.3.*

- 2. Regarding the issue of circuit boards, in addition to the changes above we will also modify Rules 2.2(C)(15), 7.0(B)(7), 2.2(C)(8), 2.2(C)(9), 2.2(C)(10) and 8.1(A)(4) language to replace "circuit boards" with "circuit boards that are components of those electronic devices as defined by the term "used electronic device" in Rule 3.0"*
- 3. As per Response #5 to Comment #5 we will revise the labeling requirements for Used Electronic Devices to remove the "may contain mercury"*
- 4. Regarding the boiler ash exemption, RIDEM believes there may be merit to not recognizing the federal exemption. However, the effect of this on small business was not completely vetted in the RegFlex regulatory approval process. In recognition of this as well as the fact that it is a generator issue, the Department will incorporate 40 CFR 261.4(b)(4) for now and consider the issue more in the next round of changes (focusing on Rule 5).*
- 5. RIDEM, after discussion with USEPA had specifically narrowed the definition of waste for which the universal waste definition was applicable. This was done so that wastes that were hazardous for other reasons (corrosive, flammable) would not be mixed with photofixer that was hazardous solely by virtue of silver content. After researching the issue of developer and stop bath with facilities that accept the waste, we have concluded that developer and stopper do not typically fail TCLP. Furthermore, these facilities have told us that it should not be encouraged to mix developer and fixer together as the resultant mixer complicates the silver recovery process by virtue of clogging from an interaction between the developer and fixer. Therefore we believe our original assumption was correct and no change is needed.*
- 6. The Department concurs and no response is needed.*

### **Comment #8: William R. Howard Jr., CHMM- National Grid**

The Narragansett Electric Company (TNEC) d/b/a National Grid wishes to provide additional comments on the proposed changes to the *Rules and Regulations for Hazardous Waste Managements* in addition to the letter dated February 16, 2010 previously submitted. National Grid comments concern the proposed changes, and changes which we feel that should be considered during this regulation revision or the next revision. We feel that the changes we support, will improve the business climate in our State, provide less regulatory burdens to existing businesses, and future business, without increased risk or harm to the environment or human health.

National Grid respectfully submits the following comments on its proposed regulations:

1. The DEM should change its regulations to include 40 CFR 262.34(d) for small quantity generators. Rhode Island's economy is very dependent on small businesses, and small offices of national companies. By not adopting these regulations, an increased burden is placed on these businesses. Some may locate just outside of our state border to avoid the increased regulatory burden.
2. The proposed definition of e-waste is very broad and will unintentionally include items that were never intended to be included. The regulations should use the definitions as provided in *Rhode Island General Laws Section 23-24.10-3*. Adoption of a different definition is both confusing and burdensome to the business community.

National Grid supports the bulk of changes and updates that have been proposed. We sincerely appreciate the effort expended by the department to keep its regulations current. Please feel free to contact me with any questions or comments at my office.

1. *The purpose of these regulations was largely to revise the Regulations for transportation, treatment and universal waste. In a future round, being considered now, the Department will be revising its generator regulations (Rule 5). The Department will take this comment under advisement as it considers the Rule 5 changes.*
2. *As discussed in the response to comment #6, the definition of e-waste has been narrowed.*



## **Comment #9: Robin L. Biscaia, RCRA Waste Management Section- United States Environmental Protection Agency Region 1**

### 1. Section 3: Definitions of “Administrator” and “EPA”

The language under the definition of “Administrator” and under the definition of “EPA” omits a few sections that cannot be delegated to the states which should be added, i.e., Subpart H of 40 CFR 262 and 264.71(d). Also, with regard to variances cited under the land disposal restrictions at 268.44(a) – (m), it is only those at 268.44(a)-(g) that cannot be delegated to states, whereas 268.44(h) – (m) can be delegated. Thus, we recommend the citation be changed to reference 268.44(a) – (g). Based upon these findings above, we suggest the following revised language to replace that which appears in the regulations as currently proposed:

“Administrator” or “Regional Administrator” . . . .

A. “Use of the word “Administrator” . . . . which include the following 40 CFR sections: 262, Subpart E & **Subpart H** and 263, Subpart B regarding exports of hazardous waste; 268.5, 268.6, and 268.42(b) plus 268.44(a-g) regarding land disposal restrictions.”

“EPA” . . .

C. “Use of “EPA” . . . 262.60(c) and (e) and **264.71(d)** regarding imports of hazardous waste; and 268.5, 268.6, and 268.42(b) plus 268.44(a-g) regarding land disposal restrictions.”

### 2. Section 8: Operational Requirements for TSD Facilities

At 8.1A14, the state makes a change to its incorporation by reference which indicates its intent to receive subsequent notices of foreign shipments (imports of hazardous wastes) at least four weeks in advance of receipt of such shipments. However, the approach the state uses is problematic here. As provided by the State’s definitions of “Administrator” and “EPA” at 3.0, the requirements at 40 CFR 264/265.12(a) cover notices to be sent to EPA (not the state). Therefore, in order for the state to make a change to its incorporation by reference of this requirement in order to require reporting to the state, it cannot simply make a substitution in the federal language. Rather, it must change the language of the federal requirement by adding the state’s additional requirement to the existing federal requirement.

Since the State is asking to receive notices of subsequent shipments, we suspect the state would also like to be informed of the original notice as well as the

subsequent ones. As such, we propose the following suggested language to replace what is proposed in 8.1A14 that would be appropriate in this scenario:

“14. In 264.12(a)(1) after “Regional Administrator” add: “and the Director”; also, in the last sentence of paragraph (a)(1) after “source” add: “to the Regional Administrator” and after “not required” add: “but is required to be sent to the Director.”

3. Section 7: Issuance, Renewal and Conditions of Facility Permits

At 7.0A29, the state adds a provision to 40 CFR 270, i.e., for obtaining an EPA Identification Number. We find the language at 7.0A29 a bit confusing and suggest the following language instead:

29. In 270.13 add a sub-paragraph, “(r) The EPA Identification Number (I.D. No.) for both facilities covered by the federal **I.D. number** system and facilities not covered under the federal **I.D. number** system, must be obtained from the Department.”

4. Section 3 and 13: Universal Wastes in 3.0 and 13.1

The sequence of the six categories of Universal Wastes identified in the Universal Waste definition at 3.0 does not match the sequence of the same waste types listed in 13.1 under RI’s Universal Waste management requirements section. The former list in the definitions section reverses the order of used electronics and lamps as they occur in the management section of 13.1. Unless there is a logical reason why the order of these two items is different in the two sections, for consistency we recommend the sequence of both lists reflect that which is found in the management section which partially replicates the order of Universal Wastes in the federal regulation at 40 CFR Part 273.

5. Regulatory Checklists

In addition to our review of RI’s proposed regulations, Region 1 has also reviewed the regulatory rule checklists the state submitted with its proposed regulations on December 16, 2009. As a result of our review of these checklists, we have the following comments:

1. The two revision checklists that were submitted for the Universal Waste petition provisions under Subpart G of the federal Universal Waste Rule (CL142E – one for Used Electronics; one for Silver-Containing Photo Fixing Solutions) are not required to be submitted for each universal waste a state adds to its universal waste program. The State had submitted Checklist 142E for the petition process in a previous authorization application and was authorized for this provision at 67 FR 51765 on August 9, 2002. There is no need to include these checklists when RI submits its application for authorization of these and other rules.

Although no specific regulatory checklists exists for these two additional wastes RI proposes to add to its Universal Waste Program, EPA has reviewed and found acceptable the state's criteria to include as a Universal Waste as well as the management requirements for these proposed waste types contained in section 13.0 Universal Waste in RI's hazardous waste regulations which we have found to be sufficiently protective of human health and the environment.

## 2. General Comments on the Checklists

Rhode Island submitted approximately 108 regulatory checklists that relate to its revised regulations. We have reviewed and marked up pages from those checklists to reflect changes to/additions of analogous state regulatory citations and comments where appropriate. We ask that RI make the changes to the checklists to be included in their submission as part of RI's upcoming authorization application. Attached are copies of the mark-ups of those pages with changes.

- 1. Regulations will be revised accordingly regarding definition of Administrator and EPA.*
- 2. Regulations will be revised to make the recommended changes regarding notification.*
- 3. The Department believes the suggested language to be more clear and will make the change regarding state regulated facilities needing an EPA ID number.*
- 4. The Department agrees consistency in the ordering of universal waste types is easier to follow and will make the changes.*
- 5. The Department will work with USEPA to make the changes to the federal checklists (these documents were not part of the Regulations that were issued for public comment).*

**Comment #10: Michele V. Leone, Manager- National Grid**

The Narragansett Electric Company d/b/a National Grid (National Grid) has learned that the Department is considering changes to the *Rules and Regulations for Hazardous Waste Management* and, specifically, to eliminate the manufactured gas plant (MGP) waste exclusion that is incorporated by reference to 40 C.F.R.261.24(a). This proposed change should be rejected because it will not benefit human health or the environment and will increase National Grid's MGP investigation and remediation costs that are funded by the rate payers of Rhode Island.

As the Department is aware, National Grid has responsibility for numerous former MGP sites located in Rhode Island. These former MGP facilities were used to produce gas from coal and oil from the late 1800s through the 1960s. As part of National Grid's Site Investigation and Remediation program, the Company is currently investigating and/or remediating eight former MGP sites in Rhode Island under the Department's *Rule and Regulations for the Investigation and Remedial of Hazardous Material Releases*. During performance of these activities, National Grid manages MGP-impacted materials generated at our sites in a manner that is protective of human health and the environment.

The proposed changes to the regulations to remove the MGP waste exclusion would have implications on many aspects of our programs, most significantly on waste management activities, without increased benefit to human health and the environment during the site investigation and remediation process. The proposed changes would require additional burdensome on-site handling procedures, as well as possibly limiting National Grid's use of thermal treatment and recycling facilities. Please note, all MGP-impacted material that is shipped from National Grid's sites under the current Rhode Island MGP exemption is thermally treated and recycled. If MGP-impacted materials are classified as a hazardous waste through the proposed changes, National Grid believes that the changes may preclude us from using certain thermal treatment facilities, thus increasing the need to use more costly and less-environmentally friendly RCRA-landfills or incineration facilities and reducing the amount of impacted soils that the Company is able to recycle through thermal desorption facilities. Many of the thermal facilities that the Company uses, recycle the treated soil by reusing it for the construction of golf course and other large-scale construction projects that require large quantity of fill material.

National Grid's investigation and remediation activities in Rhode Island are funded by the state gas and electric rate payers through the Company's rate agreements with the Public Utility Commission. The increased costs that would result from the additional on-site handling requirements and off-site waste disposal/treatment under the proposed *Rules and Regulations* changes would be borne by the rate payers without added benefit to human health and environment and the rate payers.

*As per response to comments #5 and #6, the Department is revising the rule to not make these cleanups unreasonably burdensome.*

**Comment #11: Barbara Ray, Environmental Coordinator, University of Rhode Island**

The University of Rhode Island values the opportunity to comment on the proposed revisions to the Rhode Island Rules and Regulations for Hazardous Waste Management.

1. The new universal waste definition for “used electronics” as defined in Section 3.0 is extremely broad. A simpler representation of the covered and excluded items would facilitate compliance.
2. Typographical error: Section 2.2 (H) “(except for Subpart H) in incorporated. Substitute the word is for in.
3. Section 3.0 Definitions- Rhode Island Waste: Section L- Type 6 (R006) Paragraph 6 (Appendix II- OSHA Industrial Chemicals).

The University of Rhode Island suggests that this paragraph be removed from this set of proposed regulations for the following reasons:

- a) This list is not readily accessible on the OSHA web site so its context is not easily referenced.
- b) The list does not contain CAS numbers. This causes the chemicals on the list to be ambiguous. For example anisidine has three forms, ortho, para and meta with different CAS numbers so it is unclear which chemical is being regulated.
- c) The list is outdated. Some materials such as tetraethyl lead are not commonly used since lead was removed from gasoline.
- d) The materials on this list already exhibit a characteristic such as toxicity or flammability that causes them to be hazardous so special reference seems unnecessary.
- e) Note: the paragraph ends with the word “or”. However there is not following paragraph.

1. *As per our response to comment #7, the Department has revised the definition to make it more clear what is and is not covered.*
2. *The Department has revised the rule as suggested.*
3. *The Department concurs that the Appendix II table is out of date and should be revised. The Department will consider these comments as it revises Rule 5.*