# RCRA Update (Part One)

## Avoiding Generator Status

*by Lawrence S. Ebner*

The federal Resource Conservation and Recovery Act (RCRA), is one of the most comprehensive and complex regulatory programs ever devised. Its purpose is to regulate virtually every aspect of the generation, transportation, treatment, storage and disposal of hazardous waste. In fact, it is often said that RCRA establishes a cradle-to-grave scheme for regulating hazardous waste.

Congress enacted RCRA's hazardous waste program in 1976, but at first, then Environmental Protection Agency (EPA), was very slow to implement the law. Congressional dissatisfaction led to significant statutory amendments in 1978 and 1980, and finally, to the Hazardous and Solid Waste Amendments of 1984.

The 1984 amendments made sweeping changes to RCRA. They

expanded RCRA's coverage and added many new requirements. To ensure that the amendments will be carried out, Congress imposed tight deadlines on EPA for developing new regulations. As a result, during the past two years, EPA has issued an enormous volume of highly detailed RCRA regulations. Not only that, but new regulations are constantly being proposed or issued and occupy page after page in the *Federal Register*.

To understand the regulations you must not only read and analyze the regulations themselves, but also read the lengthy preambles and supplementary materials. Even then, EPA's regulations are not the whole story; there are also state hazardous waste regulations to contend with. RCRA authorizes dual EPA and state jurisdiction over regulation of hazardous waste. State hazardous waste programs can be more stringent than the federal program, and many are. At a minimum, state hazardous waste programs must incorporate the federal RCRA requirements and lists of hazardous wastes.

There have been many RCRA developments during the past year. However, this three-part article will focus on three topics which are of great importance to aerial operators. They are how to avoid generating RCRA hazardous waste, the revised RCRA requirements for small quantity generators, and EPA's new RCRA underground storage tank program.

### *Avoiding Generator Status*

For most aerial applicators, the key issue is how to avoid becoming a generator of hazardous waste. Generators must manage their hazardous wastes in accordance with RCRA, either by shipping the waste to a licensed treatment, storage or disposal ("TSD") facility, or by obtaining a permit to treat, store or dispose of the waste on-site. Generators who ship their waste do not need a permit, but are subject to an array of RCRA notification, shipping, reporting and recordkeeping requirements. Even worse, generators who treat, permanently store, or dispose of hazardous waste on-site must have a RCRA

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*This article is based on a talk Mr. Ebner gave at the NAAA Convention and Exposition in Acapulco, Mexico. Part Two will appear in the July issue of* Agricultural Aviation.

permit. Such a permit is very costly and difficult to obtain, and extremely burdensome to comply with.

In general, an individual or business is subject to RCRA if hazardous solid waste is generated and not exempt from regulation. RCRA's definition of solid waste is very broad, and believe it or not, includes liquids as well as solids, semi-solids and contained gases. As a result, pesticide residues or rinsate from agricultural aircraft spray tanks or from pesticide drums or containers may be regulated as RCRA hazardous waste. In addition, the drums and containers themselves may be regulated as hazardous waste if they held an acutely hazardous pesticide and are not triple-rinsed as required by the Federal Insecticide, Fungicide, Rodenticide Act (FIFRA), or deemed empty as defined by RCRA.

### Determing Your Status

Determining whether a particular ag aviation operation generates hazardous waste is a complicated task. Under RCRA, a waste is regulated as hazardous waste only if it appears on one of EPA's lists (or a state's lists) of hazardous waste, or if it exhibits one or more of the hazardous waste characteristics: ignitability, corrosivity, explosivity, or Extraction Procedure (leaching) toxicity.

There are many complicated rules and exemptions that must be considered in each individual case. This often requires technical and legal experts.

For most aerial applicators, determining generator status centers around EPA's list of commercial chemical products that are considered hazardous wastes when discarded. There are two sublists of commercial chemicals, and numerous insecticides and herbicides are included on each sublist. The so-called "e" list identifies pesticides and other commercial chemicals which are considered acutely hazardous when discarded. One example is parathion. The "f" list identifies pesticides and other chemicals which are considered toxic wastes but not acute hazards when discarded. An example of that type of waste is 2,4-D.

The pesticides on these lists are regulated as hazardous waste under RCRA if they are discarded rather than used for their intended purpose. Hazardous wastes include not only the listed pesticide itself, but also any discarded residues or rinsate from tanks, drums or containers which held the pesticide. In addition, it includes any pesticide residue that is accidentally spilled or leaked and any residue or contaminated soil, water or debris from the cleanup of such a spill or leak.

### Disposal According to the Law

If an aerial applicator has applied a RCRA-listed pesticide, he cannot simply flush the residue out of his tanks onto the ground. Nor can he dispose of rinsate from tanks, drums or containers in that manner. Under most circumstances that would constitute unlawful disposal of hazardous waste and could subject an individual to stiff fines and even criminal penalties.

Please note, however, that a pesticide formulation containing two or more active ingredients is not *currently* considered a listed hazardous waste when discarded, even if each of those active ingredients is on the RCRA list. But EPA is in the process of closing that loophole. I would also like to note that under EPA's newly ex-

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panded RCRA corrective action authority, the Agency may attempt to order an applicator to clean up sites of accidental or intentional contamination, such as where tanks have been flushed.

The best ways for aerial applicators to avoid generating a RCRA-listed pesticide waste may be to temporarily store residues or rinsate in approved drums or containers and then use it as a diluent the next time the pesticide is applied. EPA's RCRA regulations acknowledge that residues which are being beneficially used or reused are *not* being discarded, and thus are *not* hazardous waste. Use of rinsate as a diluent is one of the recommendations which emerged from the National Workshop on Pesticide Waste Disposal held in Denver in January, 1985 and co-sponsored by NAAA. And as many readers know, FIFRA allows application of pesticides at less than label rates.

If an aerial applicator does generate a hazardous waste, his best option probably is to arrange for shipment of the waste to a RCRA-permitted treatment, storage or disposal facility. As I mentioned, an aerial applicator cannot discard the hazardous waste. To do so would be unlawful unless you obtain a costly and complicated permit.

Furthermore, only temporary storage of hazardous waste is allowed without a permit and only in approved tanks or containers. He cannot accumulate waste in surface impoundments, landfills, or waste piles without a permit, which would subject him to rigorous technological standards and administrative requirements. A permit is needed to treat the waste, unless treatment occurs in temporary accumulation tanks or containers within the allowable period for temporary accumulation.

### Regulatory Exemption Needed

It is the authors' opinion, that all of these RCRA requirements that apply to agricultural aviation operators are unfair in light of the express exemption in the RCRA regulations for private applicators. A farmer disposing of waste pesticides, even if hazardous, is not required to comply with RCRA provided that he triple rinses each empty pesticide container and disposes of the pesticide residues on his own farm consistent with any use or disposal instructions on the pesticide's label. Aerial applicators should be entitled to a similar regulatory exemption and the agricultural aviation industry should consider

petitioning EPA for this relief. To provide this type of relief to agricultural aviation, no statutory changes would be required — only EPA's common sense and good judgment.

At present, there are a few glimmers of hope. One is the 1985 ruling by EPA that washwater from hosing off agricultural aircraft is not a hazardous waste unless the washwater exhibits a characteristic of hazardous waste. Read the opinion closely. It is something less than a blanket declaration that washwater will not be regulated as hazardous waste. However, if it exhibits a characteristic of hazardous waste such as EP (Extraction Procedure) toxicity, it could be regulated as hazardous waste.

Another development is NAAA's efforts to persuade EPA to exercise its already existing authority under § 19 of FIFRA to regulate storage and disposal of excess amounts of pesticides. Why should aerial applicators be subject to double regulation under FIFRA and RCRA when Congress intended FIFRA to be the principal means of regulating use and disposal of pesticides? NAAA Executive Director Harold Collins has already testified before Congress regarding the desirability of regulating pesticide wastes under FIFRA rather than RCRA. Due to the NAAA's efforts, there is greater awareness of the problem at EPA and better coordination between the Agency's RCRA and FIFRA staffs. But unless and until the burdens of RCRA are lifted, aerial applicators will have to live with EPA's RCRA requirements, especially the recently revised small quantity generator limits.

*End Part One*

**NACA FACTS**
**Economical Weed Control**

Studies in Iowa and Illinois showed that chemical weed control saves farmers up to 9.2% over the cost of mechanical tillage in corn; up to 11.7% of mechanical tillage in soybeans. In the tests, chemical weed control also boosted corn yields 9.4 bushels an acre and soybeans 7.9 bushels an acre compared to yields with mechanical weed control.

Chemical weed control also results in easier harvesting and cleaner grain. Grain contaminated with weeds and weed seeds brings lower prices because it must be cleaned before it can be processed for food products.

**Source: *NACA Facts* are provided by the National Agricultural Chemicals Association, 1155 15th St. NW #900 Wash., DC 20005**

# RCRA Update (Part Two)

## Small Quantity Generators

*by Lawrence S. Ebner*

Aerial applicators who generate small quantities of hazardous waste and who may have previously escaped regulation under the small quantity generator rules, may now be subject to numerous RCRA requirements under the revised small quantity generator limits. Prior to 1984, generators of less than 1,000 kg/mo of hazardous waste, (in other words less than 2,200 pounds or 1 metric ton per month), were exempt from most RCRA requirements. But Congress became concerned that too much hazardous waste was escaping regulation. As a result, the 1984 amendments directed EPA to extend active regulation to generators who produce as little as 100 kg of hazardous waste per month. That is only 220 pounds, or about half a 55 gallon drum.

Under the new regulations that went into effect September 22, 1986

(51 Fed. Reg. 10,145), there are three categories of hazardous waste generators: large quantity generators who produce more than 1,000 kg/mo of hazardous waste; small quantity generators who produce between 100 kg/mo and 1,000 kg/mo; and so-called "conditionally exempt" small quantity generators who produce less than 100 kg/mo.

Despite EPA's authority to vary the requirements for generators in the 100 to 1,000 kg/mo category, EPA decided to subject those generators to most of the same requirements applicable to large quantity generators. That is a very significant change. Only facilities which generate less than 100 kg/mo of hazardous waste remain exempt, unless state requirements are more stringent. As in the past, generators of acutely hazardous waste — the "e" list of pesticides such as parathion — are exempt from RCRA requirements only if they generate less than 1 kg/mo. That's merely 2.2 pounds of acutely hazardous waste.

### Basic SQG Requirements

Small Quantity Generator (SQG) Status is determined on a monthly basis and depends on the total quantity of hazardous waste generated during a given month. If an applicator falls into the 100 to 1,000 kg/mo category, he is subject to the following basic requirements: determining which wastes are hazardous; obtaining an EPA ID number by submitting an EPA form or similar state form; offering hazardous wastes only to transporters who have an EPA ID number; complying with all of the Department of Transportation pretransport requirements regarding proper packaging, labeling and marking of containers; and completing the multi-copy EPA Uniform Hazardous Waste Manifest or a state specific counterpart for shipping hazardous waste away from his home base.

The goal of the roundtrip manifest system is to ensure that each shipment of hazardous waste reaches its intended final destination. A SQG has to keep copies of manifests for at least three years and must sign a waste minimization certification on each manifest. It states that "I am a small quantity generator and I

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have made a good faith effort to minimize my waste generation and select the best waste management method available to me which I can afford."

Finally, a small quantity generator in the 100 to 1,000 kg/mo category must ensure that the hazardous waste shipped off-sight is managed at a treatment, storage or disposal facility which is authorized under RCRA. A SQG can no longer dispose of residues or other wastes in municipal dumps or in any facility which is not authorized to receive hazardous wastes under RCRA.

### Some Relief

Small quantity generators do get a few breaks under the new regulations if they fall in the 100 to 1,000 kg/mo category. Most importantly, a small quantity generator can store as much as 6,000 kg of hazardous waste on site for up to 180 days without having to obtain a RCRA permit, and up to 270 days if the waste has to be transported more than 200 miles. This is very important to aerial applicators who want to temporarily store rinsate or residues and then reuse it to avoid generating hazardous waste.

A large quantity generator, on the other hand, can only store wastes for a maximum of 90 days. But there is a hitch. During the temporary accumulation period, waste must be stored in approved containers or stationary tanks which are marked and indicate the date accumulation began. Waste cannot be temporarily stored as hazardous waste in a sump or surface impoundment. Not only that, employees must be instructed on emergency procedures in case of accidental spills or leaks.

In addition to longer temporary accumulation periods, small quantity generators enjoy certain other relief from the large quantity generator requirements. This includes not having to conduct formal personnel training and not having to develop contingency plans or file biennial reports.

Only if you generate less than 100 kg/mo of hazardous waste, and less than 1 kg/mo of acutely hazardous waste, are you conditionally exempt from all the requirements applicable to small quantity generators. Beginning March 24, 1987, generators in the 100 to 1,000 category were subject to RCRA permit requirements if at any time they exceed the limits for temporary accumulation or engage in any type of waste treatment on site other than during the temporary accumulation period in the approved containers or tanks.

EPA has estimated that almost 150,000 additional businesses have become subject to RCRA as a result of the revised small quantity generator limits. Obviously, that imposes a major enforcement challenge for EPA and state agencies. The strategy adopted by EPA is to educate. In this regard you might be interested to read the publication called "A Handbook for Small Business" that EPA recently put out. It's a useful booklet, but it only scratches the surface and is no substitute for the type of careful analysis of federal and state requirements applicable to each hazardous waste generator.

*End Part Two*

# RCRA Update (Part Three)

## Underground Storage Tanks

*by Lawrence S. Ebner*

Aerial applicators who store aviation fuel in a tank 10 percent or more of which is underground are subject to the new underground storage tank ("UST") regulations.

Stationary tanks which are used to store hazardous wastes are fully regulated under Subtitle C of RCRA. Subtitle C of RCRA includes regulating tank design, operational requirements, inspection procedures, closure, etc. But in 1984 Congress became concerned that a growing number of groundwater contamination incidents were being caused by hazardous substances leaking from unregulated underground storage tanks. Thousands of these USTs were escaping regulation because the hazardous substances they store are not classified as hazardous waste under RCRA.

To address this concern, Congress enacted a new Subtitle I to RCRA establishing a comprehensive program to regulate USTs. These new RCRA regulations affect ag aviation operators who store aviation fuel in underground storage tanks. An UST is defined as a tank or combination of tanks, including underground pipes, used to store a "regulated substance" and having 10 percent or more of its volume underground. So if only 10 percent of an operation's fuel tank is underground, it's considered an underground storage tank. In turn, "regulated substance" is defined to include petroleum as well as other hazardous substances except hazardous waste, which is already regulated under RCRA.

There are several exclusions from the definition of an UST. For example, there is an exemption of farm or residential tanks of 1,100 gallons capacity or less used for storing motor fuel for non-commercial purposes. This exemption will not help many agricultural aviators.

There are three basic sets of requirements under these regulations. Notification, underground storage tank design and performance standards, and financial responsibility.

The agricultural operator's immediate concern is the notification requirement. Prior to May 8, 1986, every ag operator who owns an UST was required to submit a written notification form to a designated agency within your state. For USTs installed after last May 8, notification must be submitted within 30 days. The only exception is for underground tanks which were taken out of operation before January 1, 1974. Failure to provide the required notification can result in a fine of $10,000 per tank.

The notification is supposed to be on a form prescribed by EPA or your state agency and the cognizant state agency is normally the state water or pollution control board. For example, in California it is the Water Resources Control Board; in Texas it is the State Water Commission. The notification form provides information on the age, size, type, construction and location of each underground storage tank an operator owns. This information is

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intended to help EPA and state agencies identify problem tanks and develop adequate design and performance standards.

That leads to the second basic feature of the UST program requirements for the tanks themselves. Congress directed EPA to adopt regulations pertaining to the detection, prevention and correction of releases from USTs which are used to store petroleum. Those regulations are still under development but should be out in proposed form within the next month or two.* NAAA as well as state agricultural aviation associations can comment on those proposals.

Until new standards are developed, RCRA establishes interim requirements for any tank installed after May 7, 1985. Those tanks must prevent releases due to corrosion or structural failure during their operational life; they must be designed to prevent the release of the stored substance; and they must be constructed or lined with materials that are compatible with the substance to be stored.

Now that sounds like it's simple, but EPA put out a rather detailed interpretative rule on compliance with respect to any USTs installed after May 7, 1985. For tanks that were installed before that date there are no interim requirements.

The third and final feature of the underground storage tank program is financial responsibility for corrective actions. This is a very recent development which arose during the Superfund Reauthorization enacted in the final week of the 99th Congress in October. Congress added a new section to RCRA to ensure that financial resources are available for rapidly and effectively responding to releases from USTs containing petroleum. So that potentially affects all agricultural operators. The rationale is that an individual is more likely to tell EPA about problems if financial uncertainties on corrective action are known in advance.

There are two mechanisms established by Congress for assuring that sufficient funds are available to pay for corrective action. First the owner or operator of an UST will be required to maintain evidence of financial responsibility. Congress set the limit at $1 million per occurrence unless EPA sets a lower limit for special classes or categories of tanks.

The agricultural aviation industry should strongly consider petitioning EPA for lower financial responsibility limits in the case of underground aviation fuel tanks located on an operator's home base. Financial responsibility needs to be demonstrated through legal instruments such as insurance, guarantees, etc. or through qualification as a self insurer. The second method for financing cleanups is a $500 million "LUST" fund — a Leaking Underground Storage Tank fund — to be financed by excise taxes on motor fuels. This LUST fund will be used in special circumstances, where there is an emergency situation and the owner of the tank has insufficient funds to pay for an emergency cleanup. The LUST fund will not get anyone off the hook. LUST can be used in an emergency, but EPA then will file a suit to recover costs from an individual or business who did not meet the financial responsibility requirements.

This three-part article only scratched the surface on RCRA. It is an enormously complicated program which may have many other ramifications for small business owners such as agricultural aviation operators. In addition, there are other federal environmental laws that affect ag aviation operations.

Of course, there is FIFRA. One of the key issues emerging under FIFRA is whether EPA can and should require commercial applicators to provide public notice prior to applying a pesticide. That has considerable toxic torts liability implications for all aerial applicators. Another important issue was recently resolved when U.S. Court of Appeals in Richmond, Virginia determined that political subdivisions within a state could not regulate pesticides. Copies of the court decision are available from your NAAA Board member.

* *Comprehensive regulations were proposed on April 17, 1987. 52 Fed. Reg. 12,662, 12,786, 12,853.*

**NACA FACTS**
**Yield Increases**

With chemical control of insects, yields are increased significantly:

| | |
|---|---|
| Cotton | 100% |
| Corn | 25% |
| Onions | 140% |
| Potatoes | 35% |

Source: ***NACA Facts*** **are provided by the National Agricultural Chemicals Association, 1155 15th Street, NW #900 Wash., DC 20005.**