

Status of the Hazardous Waste Program in Colorado

February 1, 2022



COLORADO

**Hazardous Materials
& Waste Management Division**

Department of Public Health & Environment

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Executive summary

In 2021, the Hazardous Waste Program (the program) at the Colorado Department of Public Health and Environment (the department) adopted several new rules including 1) registration and certificate requirements for firefighting foam containing perfluoroalkyl and/or polyfluoroalkyl substances (PFAS), and 2) two U.S. Environmental Protection Agency (EPA) federal rules for modernizing ignitable liquids determinations and adding aerosol cans to the Universal Waste Regulations. The program helped promulgate registration and certificate requirements for firefighting foam containing PFAS pursuant to Colorado HB20-119. This bill requires facilities and other entities to register with the department and obtain a certificate if they store or use Class B firefighting foam containing PFAS. As part of the rulemaking, the program also added requirements for the storage and capture of the foam to the Colorado Hazardous Waste Regulations. Anyone testing firefighting equipment with PFAS foam must contain and capture the spent foam and safely store it prior to treating and disposing of it off-site.

The Hazardous Waste Program currently consists of **21 staff** and managers in three units:

- Compliance Assurance Unit
- Corrective Action Unit
- Permitting Unit

The Modernizing Ignitable Liquids Determinations rule amended the Colorado Hazardous Waste Regulations by updating requirements for ignitable hazardous waste. The rule added a prescription for defining aqueous hazardous wastes as part of ignitability determinations, replaced and/or updated outdated technical references, and included new methods for use to determine ignitability in wastes. The Aerosol Can rule added these wastes to the universal waste management standards under the federal regulations. While Colorado already adopted the universal wastes standards for aerosol cans into the Colorado regulations in 1996, minor amendments of the state regulations now make them consistent with the federal requirements.

The program also had an active year in hazardous waste permitting and corrective action in 2021. The program permitted three Static Detonation Chambers (SDCs) for treatment of hazardous waste mustard agent munitions at the Pueblo Chemical Depot, and renewed a storage permit at another Colorado facility. The SDCs, which are permitted as incinerators because they employ combustion to destroy harmful emissions from the primary treatment process, were the first hazardous waste units of this type to be permitted in Colorado. In addition to reviewing and approving numerous clean-up plans and reports for sites that have had a release of hazardous waste into the environment, the Corrective Action Unit continues to be involved with a number of contaminated properties that are being transferred and/or redeveloped. Redeveloping the properties offered opportunities to clean-up contamination that was previously inaccessible and lift environmental restrictions on the property. Program involvement at contaminated redevelopment sites ensures the public will not be exposed to any historic contamination that may remain in place, or if disturbed, ensures that it will be safely and properly managed and/or disposed of.

The Hazardous Waste Program continued to conduct inspections at hazardous waste management facilities in FY21 under COVID restrictions and protocols. The program identified a larger than normal number of facilities this year with hazardous waste compliance issues. Many of the compliance issues appear to be the result of a high rate of staff turnover or short staffing at the facilities, resulting in inexperienced personnel taking on new responsibilities for hazardous waste management. The program also continued developing and enhancing its online hazardous waste generator training. More than 690 people attended the online training this year, almost double that of last year's participation. Many of the individuals attending the hazardous

waste training continue to be trainers at their own organizations, passing their knowledge of the hazardous waste regulations to others.

The following report details some of the achievements of the Hazardous Waste Program over the last year.

156

facilities inspected
this year

253

sites protected
under environmental
covenants

2,113

U.S. tons mustard
agent hazardous waste
disposed of to date

Hazardous Waste Program background

Colorado's Hazardous Waste Program is responsible for ensuring compliance with laws and regulations pertaining to the management of hazardous waste. The authority for this program is in the Colorado Hazardous Waste Act, 25-15-101 et seq., C.R.S., and the federal Resource Conservation and Recovery Act (RCRA). The EPA has authorized Colorado to implement the federal program requirements, and by doing so, the authority to implement requirements for the management of hazardous waste in Colorado rests primarily with the state. The EPA authorized Colorado for the base hazardous waste regulatory program in November 1984. In July 1989, federal authorization was granted to Colorado for significant additions to the base program, including authority for hazardous waste corrective action, which provided authority to investigate and clean up releases of hazardous waste constituents into the soil, surface water or groundwater at hazardous waste facilities.

Primary elements of the Hazardous Waste Program include compliance assistance, compliance monitoring and enforcement, corrective action, and permitting. Each of these program elements is discussed in the following sections. In addition, this report includes sections discussing ongoing program authorization by EPA and the status of program funding.

As of December 2021, the Hazardous Waste Program regulates six active and permitted treatment, storage and/or disposal facilities (TSDs) and 15 closed TSDs with hazardous waste remaining buried on-site that need post-closure monitoring and/or maintenance. In addition, the program regulates approximately 118 large-quantity generators, 611 small-quantity generators, 86 transporters, and more than 4,275 very small quantity generators of hazardous waste. The program also regulates about 200 facilities at which corrective action (remediation of environmental contamination) is required.

Maintaining authorization

One of the key values held by the regulated community, and one of the legislative directives from SB 00-177, is that Colorado "maintains program authorization by the federal government." When the EPA authorizes a state for the hazardous waste program, it carefully reviews two aspects of the state program:

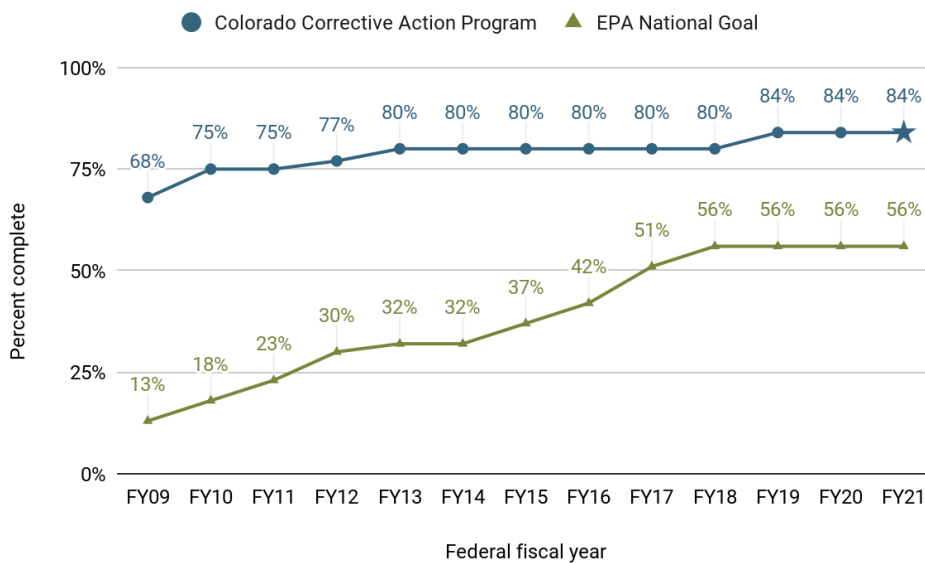
1. The state's statutory authorities, funding, and staffing, both quantitatively and qualitatively, and;
2. The state's regulations.

Once the state is authorized, EPA monitors the state program to ensure it is being implemented in a manner that satisfies federal program requirements.

To measure corrective action effectiveness, the EPA has established four national environmental indicators since 1999. These indicators measure the hazardous waste corrective action program's progress on risk containment at contaminated facilities. This approach measures "Human Exposures Under Control," "Ground Water Releases Under Control," "Remedy Construction," and "Corrective Action Completeness" at a defined group of high-priority facilities around the country.

Colorado currently has 44 of these high-priority facilities. The EPA established a national goal for each measurement in federal fiscal year 2006 and updated these goals in federal fiscal year 2009. Figures 1 and 2 show Colorado's progress on remedy construction and corrective action completeness. Human exposures have been under control at 100 percent of sites in Colorado since federal fiscal year 2013, exceeding the EPA National Goal of 87 percent of sites having human exposures under control. In addition, 100 percent of groundwater releases have been under control at the 44 high-priority facilities in Colorado under corrective action since federal fiscal year 2015.

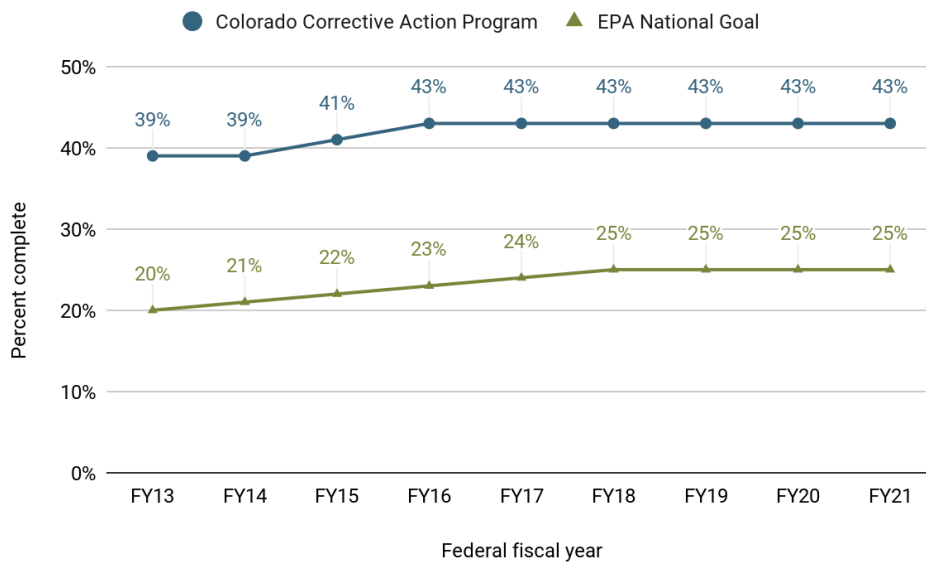
Figure 1. Remedy constructed - CA550 (EPA 2020 baseline)



Recently EPA acknowledged the great work that Colorado has achieved over the last 15 years in meeting the 2020 corrective action program goals. These goals were to achieve human exposures under control, migration of contaminated groundwater under control, and remedy construction complete at 95% of the facilities in the 2020 corrective action universe (the 44 high-priority facilities). Colorado achieved the 95% goal for two of the three metrics and made significant progress on the third.

★ 84% = 37 out of 44 Government Performance Results Act (GPRA) 2020 baseline facilities. Still to go: Dupont, Fort Carson (FtC), GSA, Pueblo Chemical Depot (PCD), Rocky Mountain Arsenal (RMA), RMSM, Suncor-W.

Figure 2. Corrective action complete - CA999 (EPA 2020 baseline)



The Hazardous Waste Program continues to be a leading contributor to national efforts to streamline the corrective action process through active participation in the Interstate Technology and Regulatory Cooperation Work Group (ITRC). State regulators lead this national organization to streamline regulatory approval processes for applying innovative technologies to environmental cleanup.

Inspections

Facility inspections are one tool the program uses to ensure hazardous waste facilities are in compliance with state laws. In 2021, the program completed 156 inspections across all facility types: 66 inspections were for large quantity generators and permitted TSD facilities; 67 inspections were at small quantity generators; seven were at very small quantity generators; and the program inspected 16 other facilities that were not listed as hazardous waste generators.

Statute requires that active hazardous waste land disposal facilities be inspected monthly. In addition, all federal and state TSDs are inspected every year, as well as 20 percent of large quantity generators, in accordance with the state and EPA Performance Partnership Agreement. The program met these requirements in 2021. The total number of inspections for FY21 remained consistent with the previous year, due to the ongoing COVID restrictions and protocols and an increase in the number of enforcement actions related to hazardous waste compliance issues. On average, the program completed 15 inspections for each full time lead inspector per quarter in 2021.

Inspections also carry administrative responsibilities, such as report preparation, tracking return-to-compliance activities at the facility, and data entry. In 2021, all inspectors performed these administrative tasks on time. Inspections also result in the issuance of formal and informal enforcement actions. One hundred percent of both formal enforcement actions (compliance orders) and informal actions (compliance advisories) were timely in 2021, as measured against standards established by EPA and adopted by the Colorado program. All inspection reports become public documents and are available through our online environmental records at www.colorado.gov/cdphe/hmwmd-records-review.

Figure 3. Inspector efficiency

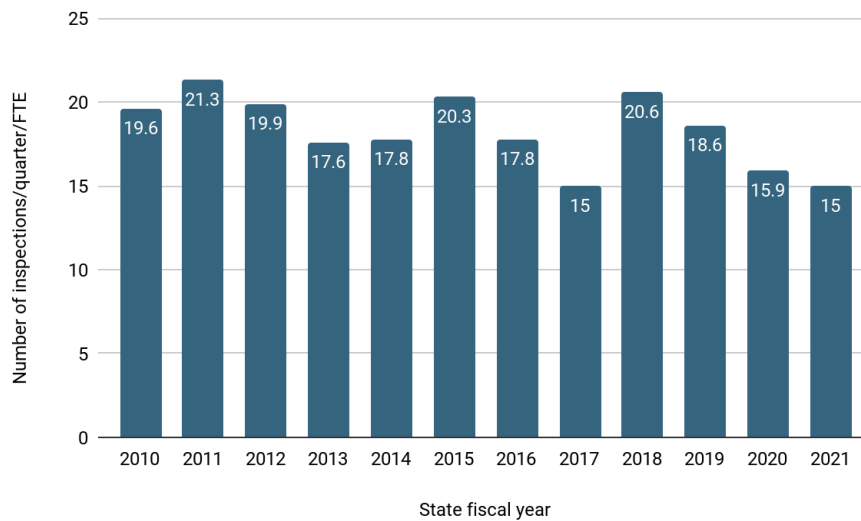


Figure 3 shows the average number of inspections performed by each inspector per calendar quarter. The performance plans for each inspector define the number of completed inspections needed to achieve an outstanding, satisfactory or unsatisfactory performance rating. To perform at a sustainable level, experienced inspectors should be expected to conduct 15 inspections per calendar quarter and 18 per quarter for an outstanding rating in this aspect of their job duties. This standard prevents staff burn-out, but also allows the program to adequately inspect the regulated universe. Inspections in FY21 were less than last year due to training, COVID-19 restrictions, and increased enforcement actions.

Common violations seen on inspections



1 Failure to properly label containers, containers in poor condition, open containers and storing containers with inadequate aisle space.



2 Failure to properly manage Universal Waste, including electronic waste, batteries, and mercury containing lamps.



Lack of training and training documentation for employees handling hazardous waste.

3

Hazardous waste rulemaking

In 2021, Colorado amended the Colorado Hazardous Waste Regulations (6 CCR 1007-3) to adopt a Registration and Certificate Program for facilities and entities using or storing Class B firefighting foam containing perfluoroalkyl and/or polyfluoroalkyl substances (PFAS). The state amended Part 267 of the regulations by adding a new Subpart Q that applies to all persons that store or use Class B firefighting foam containing intentionally added PFAS and requires them to register and obtain a certificate from the Hazardous Materials and Waste Management Division. The regulations also require any person that uses Class B firefighting foam containing intentionally added PFAS in testing firefighting foam fire systems, to capture

the spent foam in containment systems and store the spent foam in containers meeting certain requirements prior to off-site shipment for disposal.

The mandatory online registration program for these entities requires basic information about the fire department or facility and the quantities and configurations of the storage of the PFAS-containing foam. Upon review of the information, the program issues a Certificate of Registration through the online registration.

A small number of entities must still discharge the foams containing PFAS when testing their equipment or fire suppression systems. For example, testing firefighting foam suppression systems is required at municipal airport facilities in hangars where airplanes are worked on. Testing these firefighting foam suppression systems requires that the distribution and ratio of firefighting foam to water is validated, and in large hangars, that the fire suppression foam system adequately provides coverage onto the hangar floor space in the event the system must discharge the foam to quickly extinguish a fire.

To address the required testing with Class B firefighting foam containing PFAS, Part 267, Subpart Q requires that any person using the foam to test equipment must capture the foam in containers or a containment system that will prevent its release to the environment. The containment systems used to capture the PFAS-containing Class B firefighting foam during testing must be adequately designed, constructed, and operated to ensure discharges of the foam are collected without any splashing or spraying of the foams or liquids outside the system. They must also prevent precipitation from running onto or infiltrating the system and be maintained with good integrity.

Because these containment systems cannot be used for long-term storage of spent foams and liquids, the spent foam must be promptly removed from the containment systems and placed in containers. The spent PFAS-containing Class B firefighting foam must be shipped off-site for treatment and disposal as soon as possible, however the waste foam may be stored on-site in containers prior to disposal for up to 120 days. The spent foam must be stored in Department of Transportation (DOT)-approved containers on-site that are labelled with content and the accumulation start date, kept closed except when adding wastes, and stored in stable configurations on flat surfaces with aisle space to facilitate their inspection and movement in the event of a leak or other emergency. Containers of spent foam must be stored on concrete or lined surfaces that are bermed or otherwise designed to prevent run-on or run-off of precipitation. Failure to comply with the Part 267, Subpart Q requirements can result in penalties for non-compliance. This includes compliance with the PFAS-containing firefighting foam registration and certificate program, as well as the capture and storage requirements

Parts 260, 261 and 264 of the regulations were amended to adopt the Modernizing Ignitable Liquids Determinations final rule published in the Federal Register on July 7, 2020 {85 FR 40594-40608}, and which became effective on September 8, 2020. The rule finalized updates to the regulations for the identification of ignitable hazardous waste under RCRA, and codified existing guidance regarding the definition of “aqueous” for purposes of 40 CFR 261.21(a)(1). The federal rule also updated cross references to DOT regulations, made certain other conforming amendments and technical corrections to the § 261.21 regulations, and added mercury thermometer alternatives in the air sampling and stack emissions test methods in SW-846 Test Methods 0010, 0011, 0020, 0023A, and 0051. The state made equivalent sections and references in the Colorado regulations accordingly.

Colorado adopted state regulations for the management of aerosol cans as universal waste under Part 273 of the regulations in 1996. On December 9, 2019, the EPA issued a final rule adding aerosol cans to the federal list of universal wastes regulated under the standards for universal waste 491 management found in 40 CFR Part 273. As such, only minor amendments to the Colorado regulations were necessary to adopt the federal rule to maintain state equivalency. In 2021, Colorado amended the regulations to be consistent with the federal requirements.

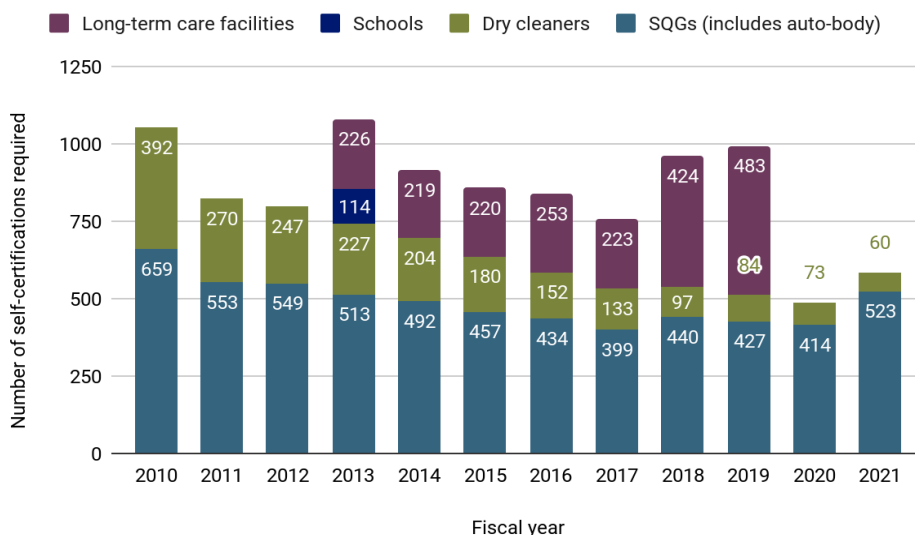
Since March of 2021 the program has initiated extensive outreach related to the amendments, including website postings and references to department links. The Hazardous Waste Program also continued to educate hazardous waste pharmaceutical generators on the new rule changes in the program's annual statewide hazardous waste training classes. In October 2021, the Hazardous Waste Program conducted an online two-day training class for the entire state. 695 industry professionals attended the training statewide. Feedback from industry representatives indicated that the trainings, including the new online platform, were well received and appreciated.

Self-certification

The Hazardous Waste Program created the self-certification program in 2005 to allow dry cleaning facilities to audit their own waste management, submitting annual checklists as documentation to the department. After launching the program, there appeared to be a quick decrease in violations. The program was expanded to include small quantity generator facilities in 2006 and long-term care facilities in 2013. There were similar improvements as the program rolled out self-certification to these additional facilities, as the self-certification checklist walks the facility through a typical inspection and provides additional waste management guidance.

In 2021, the self-certification program again did not include healthcare facilities due to passing the new Pharmaceutical Rule. The rule makes it easier for these facilities to manage their wastes, allowing us to ensure that waste pharmaceuticals generated are properly managed and dispositioned.

Figure 4. Self-certification program



As Figure 4 shows, the number of dry cleaners in the self-certification program has continued to decrease over the years as facilities switch from perchloroethylene to alternative chemicals that do not create hazardous waste.

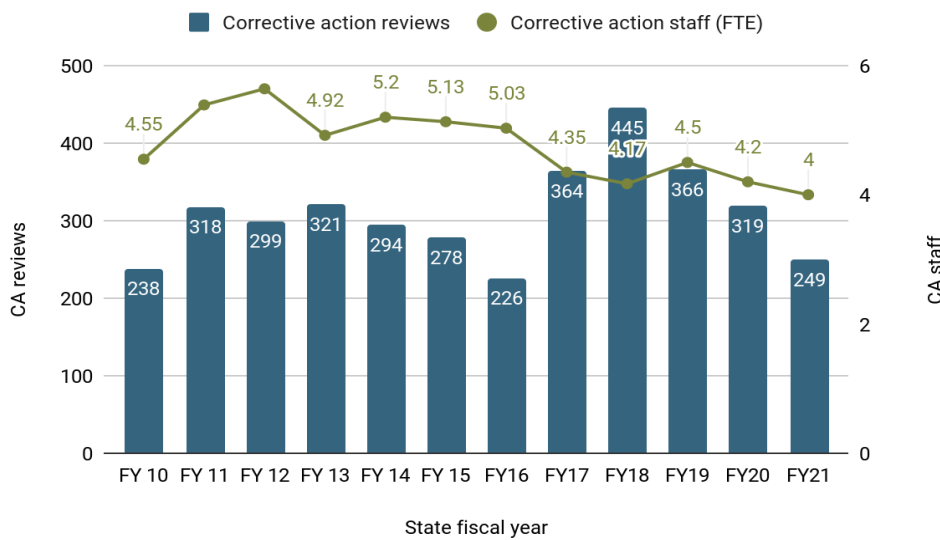
Corrective action

Corrective action, which is the environmental remediation and clean-up portion of the Hazardous Waste Program, continues to be a substantial part of the program’s workload. Corrective action staff oversee the remediation and cleanup of more than 200 individual facilities ranging in size from large facilities, such as Fort Carson and Lockheed-Martin, to very small facilities like neighborhood dry cleaners and plating shops.

The program uses Corrective Action Plans (CAPs) to initiate corrective action at facilities without the need for extensive enforcement. Though voluntary, this is a popular mechanism among industries, and an alternative to the resource-intensive options of a hazardous waste permit or compliance order. This year, reviewing a simple CAP took staff 5.1 hours over 32 days to complete, compared to 3.1 hours last year, because the simple CAPs processed this year were slightly more involved than last year. This is still well below the target of 10 hours across 30 days set in 2007.

On the other hand, staff processed a complex CAP in approximately 22.8 hours over 28 days in 2021. This was a slight increase from 2020, but still well below the division’s goal of 40 hours across 60 days.

Figure 5. Corrective action reviews and staff levels



The program continued to be productive in completing corrective action reviews this year. Staff completed 62 reviews per full time employee in FY21, compared to 76 reviews per employee in FY20.

Figure 6. Site redevelopment



In 2021 the Corrective Action Unit continued to address a number of property sales and redevelopment proposals occurring at hazardous waste sites where complete remediation of the property hasn’t yet been achieved. These redevelopment activities are typically associated with the demolition and construction of new buildings for the site and reconfiguring it for a new land use. The Corrective Action Unit uses these redevelopment activities as an opportunity to require additional remediation of soil and groundwater in areas that were previously inaccessible. Ultimately, redevelopment of these sites enhances economic development in the area and results in a cleaner property.

Environmental covenants

Senate Bill 01-145 created environmental covenants (ECs), which provide a mechanism for property owners to establish certain restrictions or conditions for their properties, and for those restrictions or conditions to be enforceable by the department. In 2008, via passage of Senate Bill 08-037, the Senate added notice of environmental use restrictions (RNs) to the statute as a second mechanism to ensure long-term control of residual risks. Federal facilities throughout Colorado were unwilling to enter into environmental covenants, because the federal government feared the covenants represented interest in real property. Rather than litigate the issue, Colorado worked with the federal entities to develop RNs as a mechanism that federal entities could agree to, thereby accomplishing long-term control of contaminated sites equivalent to that afforded by ECs. We can now approve long-term clean-up plans that rely on institutional controls (i.e. ECs and/or RNs) to manage risks associated with residual contamination, thereby avoiding the difficulty and expense of remediating sites down to unrestricted-use levels. To date, accomplishments include:

- The program created a registry of sites as required by the statute. Currently, there are 235 sites on the registry, one-third of which are hazardous waste sites. Several others are in process and will be added.
- The Colorado Attorney General's Office (AGO) developed model EC and RN language.
- The program implemented a [geographic information system \(GIS\)-based map web page](#), which includes the sites with institutional controls and a link to the actual EC or RN document. This tool allows the public to have access to the information, as the map below shows.
- After meeting with several local governments to discuss communication and implementation issues, we created a guidance document on what institutional controls are, the opportunities they offer, what is needed to create an EC or RN, and the tracking and notification responsibilities of the state and local governments.
- Program staff and staff from the AGO have developed a policy describing when institutional controls should be finalized within the clean-up process, so remedies cannot be compromised through subsequent property transactions.
- The ArcGIS maps showing properties subject to institutional controls provide an excellent way to partner across state agencies. For example, when the State Engineer of the Division of Water Resources receives a permit for a new well, the office cross-references the site with the institutional controls map to make sure the well will be protective of human health and the environment. The Colorado Oil and Gas Conservation Commission has also used the interactive institutional controls maps.

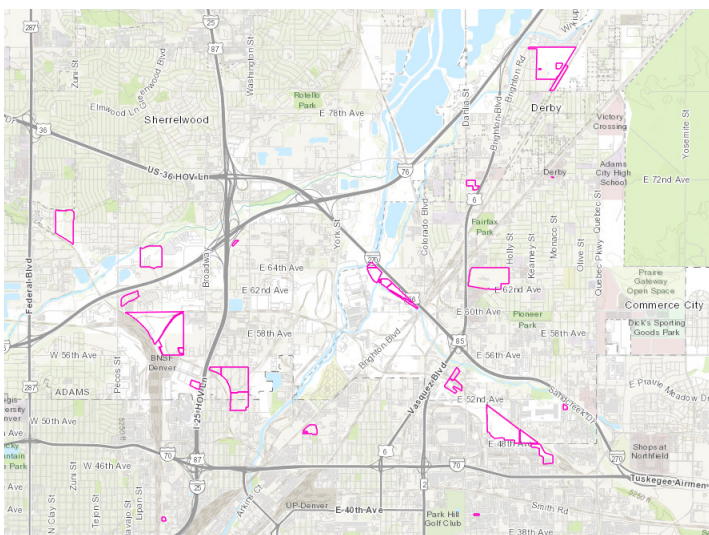


Figure 7. Examples of properties under environmental covenants and use restrictions
 CDPHE Institutional Controls Map:
<https://arcg.is/1eWHrj0>

Permitting

Facilities that manage hazardous waste in a manner that requires permitting by the Colorado Hazardous Waste Program are referred to as TSDs. There are currently 21 TSD facilities in Colorado – six are active and required to have an operating permit and the remaining 15 require a post-closure permit or equivalent enforceable document. Colorado has operating permits in place for all six of the operating facilities and for 49 of the 50 individual units on those facilities. The only unpermitted unit is at the Pueblo Chemical Depot (PCD), which includes 94 chemical weapons storage igloos (considered a single “unit”). The program does not plan to permit these igloos, but rather to regulate them under a compliance order until they are emptied and closed by the Army under its Chemical Demilitarization Program no later than 2023.

The other 15 TSD facilities in Colorado are no longer actively managing hazardous waste, but have left waste or contamination in the ground. These facilities require post-closure care or monitoring controls. As of FY 2021, Colorado has post-closure controls in place at all of the units at these facilities. We also issue emergency permits to entities that want to treat any potentially reactive hazardous wastes. This ensures that the disposal method is safe for each specific type of reactive hazardous waste. Common reactive wastes that require an emergency permit are fireworks, ammunition, and unstable chemicals. The program works closely with local health departments, police departments, and bomb squads who frequently need to dispose of these reactive wastes. In calendar year 2021, 44 emergency detonation permits were issued across the state.

In 2021, the Permitting Unit reviewed and/or approved 26 permit modifications for the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP), as well as approximately five modifications for the PCD permit. In addition, the Permitting Unit issued a Class 3 permit modification to PCD’s existing permit to add three Static Detonation Chambers (SDCs) at the facility. Construction of the SDC is complete, and trial burn testing of the units began in October 2021.

The Permitting Unit approved the permit renewal for the University of Colorado Boulder facility in September 2021, allowing for continued operations at this hazardous waste storage facility for the next five years. Permitting Unit staff also conducted inspections for several permitted TSDs in FY2021, and issued a number of Compliance Advisories and Inspection Reports associated with these efforts.

Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP)

Completed construction of SDC units



SDC air filter units



541,000

chemical
weapons have
been destroyed
at PCAPP



Munitions processing
at PCAPP



PCAPP is one of Colorado's permitted facilities. This plant began processing 105 mm munitions in 2021.

In 2021, the PCAPP facility continued with consistent operation and completed processing the remainder of the 155 mm projectiles. By early summer, the facility had transitioned to the 105mm projectile campaign with few technical issues. As of December 7, 2021 the PCAPP main plant had destroyed a total of 242,572 105mm projectiles.

PCAPP, in conjunction with PCD, applied for a Class 3 permit modification request to construct, test, and eventually operate three SDC incinerators for the destruction of all the mustard agent contained in the roughly 100,000 4.2-inch mortar rounds stored onsite. The division issued a hazardous waste operating permit for SDC activities in early October 2021 in an expedited manner to achieve chemical weapons stockpile destruction completion by 2023. PCAPP will also be able to employ the SDC units to treat any problematic rounds that cannot be processed in the main plant.

In late October 2021, PCAPP/PCD began Trial Burn Operations at the SDCs with the initiation of Non-Agent Trial Burn testing. This is the first stage intended to incrementally test the SDC Units ability to safely destroy the mustard agent. The facility must successfully accomplish all elements of Phase 1 trial burn testing prior to introducing mustard agent to the units.

In addition, on-site Immobilized Cell Bioreactors (ICBs) provided additional treatment for hydrolysate being generated from increased plant processing activity. The ICBs use microbes to biodegrade hydrolysate, the waste resulting from the neutralization of mustard agent. The bioreactors have proven to be a highly effective and efficient technology for degrading hydrolysate leaving only water (recycled through the plant) and salt cake (taken off-site for hazardous waste landfill disposal.) As of December 7, 2021 the ICBs had processed approximately 137,300 gallons of hydrolysate.

Compliance assistance

2021 by the numbers:



72%

of inspections offered compliance assistance.



1,729

responses to calls and emails by our Technical Assistance Line.



7,714

web hits for our main Hazardous Waste Program webpage.



2,629

web hits for our annual hazardous waste regulations training.



1,988

web hits for hazardous waste regulations and statutes.



1,875

web hits for hazardous waste management guidance and policy.

A goal of the Hazardous Waste Program is for all regulated facilities to be in compliance with state laws and regulations. The traditional inspection and enforcement program is one way to reach that goal. Compliance assistance is another important method for obtaining and maintaining compliance. The General Assembly recognized the value and importance of compliance assistance as one of the expectations set out in SB 00-177, Section 25-15-301.5(2)(g), C.R.S., calling for the department to “establish a preference for compliance assistance with at least 10 percent of the annual budget amount being allocated to compliance assistance efforts.” In FY 2021, the program met that requirement with 11.7 percent of staff time devoted to compliance assistance.

Program inspectors incorporate compliance assistance and pollution prevention into compliance inspections when appropriate. Inspectors provided guidance documents and person-to-person consultation on 112 of the 156 inspections performed this year. No facilities requested site visits this year under the Generator Assistance Program, where a free site visit is offered to help facilities come into or stay in compliance with Colorado’s hazardous waste requirements.

Hazardous waste regulations training

Hazardous Waste Program staff provided a training on the Colorado Hazardous Waste Regulations using an online platform this year, reaching 695 people.

2021 Colorado Hazardous Waste Training: Overview of Regulations

October 27-28, 2021



As part of its compliance assistance efforts, the Hazardous Waste Compliance Assurance Unit hosts a training every year in October for facilities that generate hazardous waste. The training presents an overview of the Colorado Hazardous Waste Regulations. In 2020, the COVID-19 pandemic required the shift to the new remote format, however the unit found that by pivoting to offering this training on a webinar based

platform, it made the training more accessible to a greater number of people and facilities located throughout the state. The hazardous waste inspectors present hazardous waste generator regulations and allow regulated facility personnel the opportunity to ask inspectors any questions they may have regarding hazardous waste compliance at their specific sites. All of the presentations, along with related reference materials, are posted on the [Hazardous Waste Regulations Training webpage](https://cdphe.colorado.gov/colorado-haz-waste-reg-training) at <https://cdphe.colorado.gov/colorado-haz-waste-reg-training>. This allows facilities to access them throughout the year for their own training use. In 2020, the first year of the webinar, 382 people registered. After some further outreach over the past year, including mailing postcard notifications and offering early online registration options, 695 individuals registered to attend the training in October 2021.

Program funding

Funding for the Colorado Hazardous Waste Program comes from federal grants, cash fees, and an annual Chemical Demilitarization Grant. The program receives no Colorado General Fund money. Currently, without considering federal funding for the Chemical Demilitarization Project and the Rocky Flats Site, fee revenues fund about 60 percent of program costs, and the EPA grant covers the remaining 40 percent, as illustrated in Figure 8.

The EPA grant has remained essentially flat for more than 15 years, however it increased by 23 percent this last year. Occasionally, the fees have had to be increased several times to cover increasing program costs. The Colorado Solid and Hazardous Waste Commission passed the last fee increase in 2009. The fees have not been increased since then.

It is important to note that personnel costs are the largest single expense item for the program. Therefore, managing staffing levels is an important part of managing the program budget. The ability to continue with the current fee level is largely due to the process improvements implemented by staff. The program is committed to using technology, acting on ideas from our regulated entities and stakeholders, and continuous quality improvement. Program expenditures, by percent, are illustrated in Figure 9.

Figure 10 tracks the revenue, including the EPA grant, expenditures, and fund balance for the Hazardous Waste Program. The key data lines on Figure 10 are the total revenue (blue line near the top), total expenses (green line) and the cash balance (red line) in the Hazardous Waste Service Fund. Figure 10 shows that, based on our projections, the fee level is adequate for at least three more years.

Figure 8. Program funding (approximate)

● Fees (annual - generator, TSD and covenants and activity - document r...
 ● EPA grant ● Federal grants (Pueblo Chem Demolition, Rocky Flats)

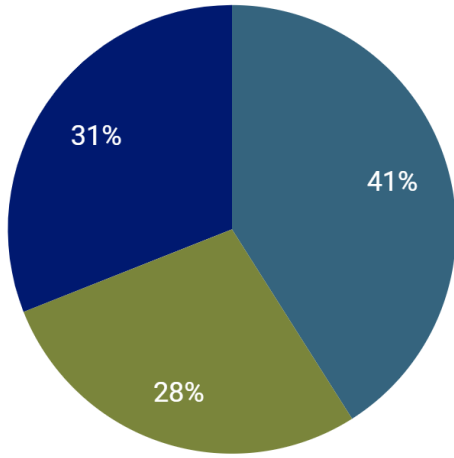


Figure 9. Program expenditures (percent)

● Administration ● Compliance assurance
 ● Corrective action ● Permitting ● Attorney General Office

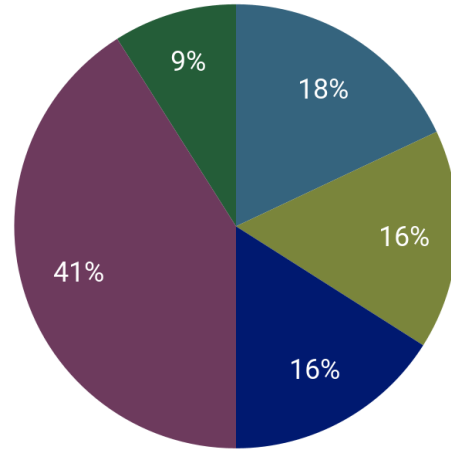
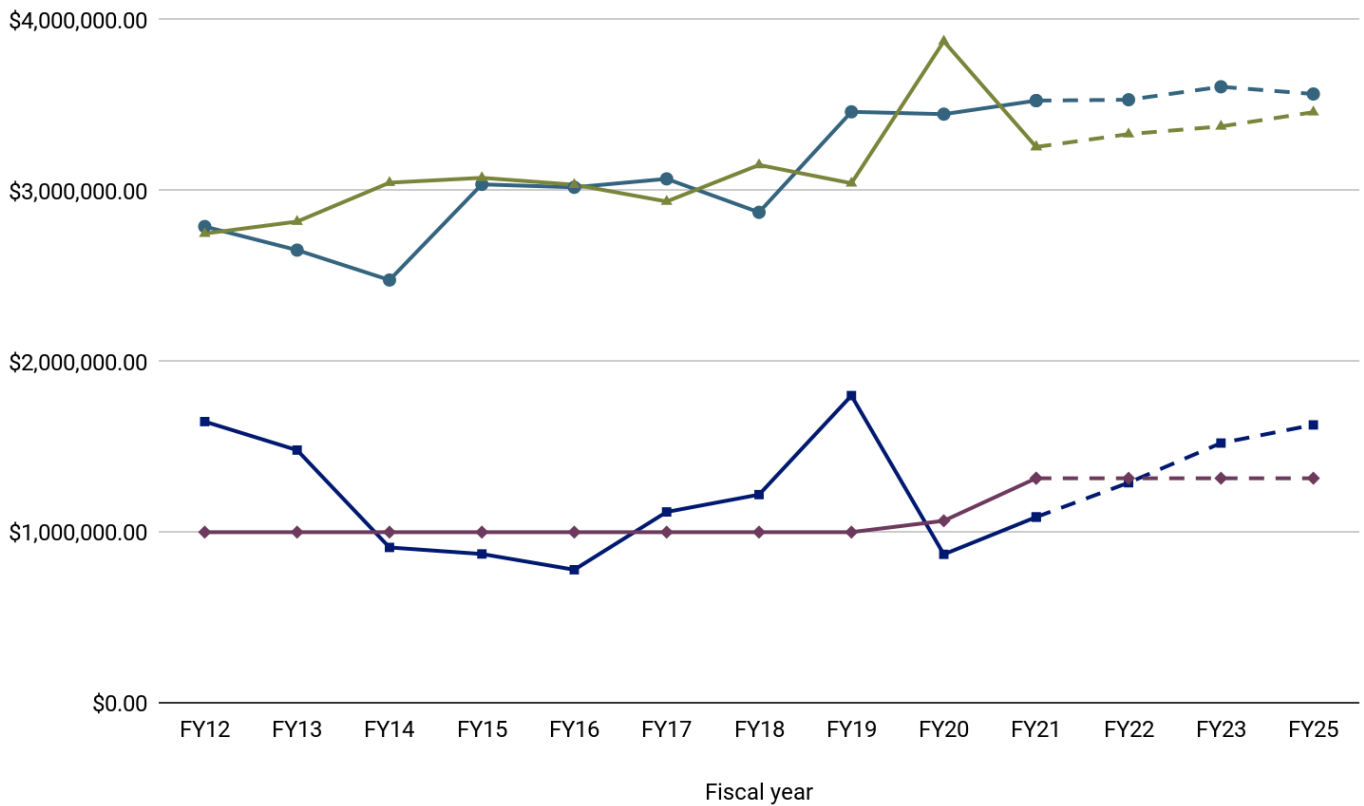


Figure 10. FY21 Hazardous Waste Program budget analysis

● Total revenue ▲ Expenses ■ Funding balance ◆ EPA grant



Conclusion

As discussed in this report, the division has implemented and maintained significant improvements to the Hazardous Waste Program to satisfy the expectations set out by SB 00-177 (Section 25-15-301.5, C.R.S.).

Key accomplishments include:

- Maintaining program authorization by the federal government (EPA);
- Maintaining a program that is credible and accountable;
- Maintaining a program that is innovative and cost-effective;
- Maintaining an effective inspection rate;
- Training 695 people across the state on Colorado's Hazardous Waste Regulations;
- Emphasizing compliance-assistance efforts.

Efforts undertaken by the Hazardous Waste Program have significantly improved both the efficiency and effectiveness of the program. Major program accomplishments include continuing emphasis on innovative compliance assistance projects; maintaining high inspection efficiency and corrective action efficiency; maintaining high timeliness of enforcement actions; and exceeding national goals set by the Environmental Protection Agency for corrective action, permitting, inspections, and enforcement.



Principal author:

Doug Knappe, Hazardous Waste Program Manager

Contributing authors/technical assistance:

Rob Beierle, Hazardous Waste Corrective Action Unit Leader
Kris Figur, Hazardous Waste Compliance Assurance Unit Leader
Kevin Mackey, Hazardous Waste Permitting Unit Leader
Amy Williams, Data Management
Laura Gurule, Data System Administrator
Laura Dixon, Community Involvement & Communications Manager

Statute:

Section 25-15-301.5(3), C.R.S.

For additional information or copies:

Doug Knappe, Hazardous Waste Program Manager
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
doug.knappe@state.co.us
(303) 692-3414