



September 14, 2026

Submitted electronically to the New Mexico Environment Department

Attn: House Joint Memorial 3 — Public Comment (<https://nmed.commentinput.com>)

Re: Public Comment of the Cookware Sustainability Alliance (CSA) on House Joint Memorial 3 Report. Recommendation that the Fluoropolymer Exemption at Section 3 of the Per- and Poly-Fluoroalkyl Substances Protection Act (House Bill 212) be Continued

Dear Secretary Kenney and Members of the Environment Department:

The Cookware Sustainability Alliance (CSA) submits this comment to inform the report the New Mexico Environment Department (NMED or the Department) has been requested to prepare under House Joint Memorial 3 ("HJM 3"); in particular the Department's recommendation to the Legislature on whether the exemption for fluoropolymers should be continued, modified or removed. We believe strongly that it should be continued.

The CSA is an organization dedicated to providing facts and science-based information about the safety of cookware products for consumers and policymakers to make informed decisions.

The purposes of the Per- and Poly-Fluoroalkyl Substances Protection Act are legitimate. New Mexico faces real and increasing costs from PFAS contamination of drinking water supplies, wastewater systems, septic systems, and solid waste infrastructure. The CSA is not asking the Department to weaken the Act. We urge the NMED and Legislature to preserve a scientific distinction that the Legislature itself drew with the support of the Department, on a record that has become substantially stronger since that decision was made.

HJM 3 records that the exemptions were adopted "based on limited scientific literature regarding chemical degradation, environmental mobility and persistence, potential human exposure pathways and possible health impacts," and finds that additional study is needed to understand more fully the toxicological profiles, exposure risks and public health implications of fluoropolymers. We take that finding seriously and treat it as an invitation to supply what the Legislature said was missing from the debate. However, to be clear, this information was part of the legislative debate, and the science is clear and undisputed. Section IV addresses each of those four subjects in turn.

I. Interest of the commenter

We are a diverse group of businesses and responsible manufacturers of food preparation products. Our products are sold throughout New Mexico through national and regional retailers, as well as online.

Our interest is direct. Fluoropolymer coatings — PTFE, PFA, and FEP — are used on food-contact cooking surfaces in our cookware and on food-contact surfaces in small electric appliances, and fluoroelastomers (FKM) are used in internal sealing components that can be wetted from liquids. Whether the Section 3 exemption is continued determines whether these safe, durable and affordable products remain available to New Mexico households.

II. Summary

We urge the Department to follow the facts, recognize the science, and accordingly we recommend that the fluoropolymer exemption be continued. In summary:

1. **Removal would not deliver a demonstrated benefit to New Mexico.** The contamination pathways HJM 3 identifies — drinking water, wastewater, septic systems — require an environmentally - mobile, water-soluble substance, which solid fluoropolymers are not. Fluoropolymers cannot dissolve in water, a fact recognized for decades. Section III.
2. **The literature the Legislature called limited is not limited, it is expansive and covers over 60 years of study and consistent findings.** Section IV.
3. **Removal would forfeit affirmative health benefits.** The cooking surface sets the dose of added fat; in appliances, fluoropolymers prevent metal-ion migration into beverages and seal failure in pressurized systems. Section V.
4. **No reasonably available alternative exists.** The leading substitute is documented to be less durable, is significantly more expensive, has been less studied, and is carry its own emerging regulatory concerns. Section VI.
5. **Removal would worsen environmental outcomes.** Life-cycle evidence indicates the alternative to nonstick cookware generates approximately seven times more end-of-life waste, and increases the use of oils, which are not healthy and which are the source of the majority of fires in homes. Section VII.
6. **Removal would fall hardest on lower-income New Mexico households.** Section VIII.
7. **New Mexico's approach is being validated, including by governments that designed Europe's most aggressive PFAS restriction.** Section X.

III. The threshold question: what would removal accomplish?

If the exemption were removed and fluoropolymer cookware and appliances were prohibited in New Mexico, what measurable environmental or public health benefit would the State obtain?

HJM 3 identifies the harms the Act addresses with precision: contamination of public drinking water supplies, public wastewater systems, private drinking water supplies, private septic systems, and municipal solid waste management and disposal infrastructure. Each is a pathway that requires a substance capable of moving — dissolving, leaching, migrating, or being carried in water.

A solid fluoropolymer coating bonded to a pan in a New Mexico kitchen or a landfill does not enter those pathways. It is water-insoluble and non-mobile. It does not wash into wastewater. It does not leach into groundwater from a septic field. The peer-reviewed record on this is set out in Section IV.

The releases that generate harmful, water soluble PFAS contamination occur at facilities that manufacture, use or process fluorochemicals. A retail prohibition would remove products from New Mexico shelves without eliminating any release into New Mexico air, water, or soil. That leaves end-of-life as the only plausible pathway, and Section VII addresses it directly — with the finding that removal would increase, not decrease, the volume of cookware entering New Mexico’s waste stream.

The question we request the Department to test

Not “are fluoropolymers PFAS?” — the statute already answers that, and the Legislature drew its line with that answer in view. The operative question for the report is whether removing the exemption would measurably reduce the contamination and the costs HJM 3 identifies. The evidence shows it would not, and that removal of the exemption would impose substantial offsetting harms.

IV. Responding to the four subjects identified in HJM 3

HJM 3 names four areas in which the Legislature considered the literature limited: Chemical degradation, environmental mobility and persistence, human exposure pathways, and health impacts are addressed in turn.

A. Chemical degradation

The concern is whether a fluoropolymer breaks down into smaller, mobile PFAS compounds of the kind that drive contamination.

The OECD’s Synthesis Report on Understanding Fluoropolymers and Their Life Cycle treats fluoropolymers as a distinct category rather than as interchangeable with other PFAS. A September 2025 environmental-fate study reaffirms that stability.

The practical point is that the property most often cited as alarming — that these materials do not break down — is, for an already-inert solid, precisely the property that prevents formation of the mobile compounds of concern.

In a recently released study, Jappen, Michell, *et al* studied the effective mineralization of polytetrafluoroethylene (PTFE) during thermal treatment under municipal solid waste incinerator (MSWI) conditions and to evaluate the potential formation of per- and polyfluoroalkyl substances (PFAS) and select other products of incomplete destruction (PIDs). A commercial grade PTFE sample was first subjected to elemental analyses and then incinerated in a bench-scale combustion system designed to represent conditions typical of MSWIs in the United States and European Union. Calculated destruction efficiency across the experiments averaged 99.99962 % for PTFE. These findings indicate that PTFE undergoes effective mineralization under typical incineration conditions, and that MSWI is a means of responsible end-of-life management for the fluoropolymer. (The study is being submitted as an accompaniment to this letter.)

B. Environmental mobility and persistence

Fluoropolymers are persistent.

The question is whether persistence alone is the harm the Act was written to prevent. HJM 3's own findings indicate it is not: the Legislature identified adverse health implications, bioaccumulation in people and wildlife, and high persistence — in combination. And the costs it identified arise from pathways that require movement.

Fluoropolymers are materials that are negligibly water-soluble, non-mobile, non-bioavailable, and non-bioaccumulative. A persistent solid that does not dissolve, does not migrate, and cannot be taken up by an organism does not travel the pathways the Act was designed to close.

The physical distinctions that separate these materials from the compounds that generated the concern are important to understand. Fluoropolymers are extremely long molecules built from repeating units — orders of magnitude larger than compounds such as PFOA and PFOS. On physicochemical properties, fluoropolymers are better understood as a separate class than as a subset behaving like the rest. Their size and stability leave them insoluble in water, which is precisely why they present very low or no risk of environmental contamination and why they are not bioaccumulative. Fluoropolymers cannot penetrate a human cell.

The relevant difference between fluoropolymers and compounds such as PFOA is not the degree of fluorination — both are highly fluorinated — but molecular size and physical form. PFOA is a small molecule that dissolves and travels, and PFOA has oxygen and a hydroxyl atom at the acidic end of the molecule, allowing it to interact with water. On the other hand, a fluoropolymer molecule is a solid too large to dissolve in water, migrate, or be absorbed by the human body. The two substances share a definitional label but behave nothing alike.

Persistence is a hazard unless it's paired with toxicity, mobility or bioavailability. When all three of those additional attributes are absent, persistence describes a durable material rather than a contaminant — and durability, as Section VII shows, is environmentally advantageous in this product category.

Korzeniowski, Buck, *et al* found in their June 2022 study that fluoropolymers are insoluble (e.g., water, octanol) solids too large to migrate into the cell membrane making them nonbioavailable, and therefore, of low concern from a human and environmental health standpoint. Further, the study results demonstrate that fluoropolymers are a distinct and different group of PFAS and should not be grouped with other PFAS for hazard assessment or regulatory purposes. (The study is being submitted as an accompaniment to this letter.)

Henry, Carlin, *et al* found in their study that with a molecular weight well over 100 000 Da, fluoropolymers cannot cross a cell membrane. Fluoropolymers are not bioavailable or bioaccumulative, as evidenced by toxicology studies on polytetrafluoroethylene (PTFE): acute and sub-chronic systemic toxicity, irritation, sensitization, local toxicity on implantation, cytotoxicity, in vitro and in vivo genotoxicity, hemolysis, complement activation, and thrombogenicity. Clinical studies of patients receiving permanently implanted PTFE cardiovascular medical devices demonstrate no chronic toxicity or carcinogenicity and no reproductive, developmental, or endocrine toxicity. (The study is being submitted as an accompaniment to this letter.)

C. Potential human exposure pathways

For cookware and food-contact appliance surfaces, the pathway of concern is migration into food.

Direct testing addresses the most common consumer concern. A laboratory study published October 1, 2025 by dTest, a Czech consumer organization, found that even intentionally damaged non-stick pans did not release measurable PFAS. That finding was produced by an independent consumer-testing body, not by industry, and it speaks directly to the scratched-pan scenario that drives most public anxiety about this product category.

This is consistent with long-standing U.S. regulatory treatment. Fluoropolymer coatings have been authorized for food contact under 21 C.F.R. § 177.1550 since the early 1960s, under a U.S. Food & Drug Administration regulation that requires the coated article to meet defined extraction limits when tested with aqueous, alcoholic, and fatty food simulants at reflux temperature.

US-FDA's current public materials on PFAS acknowledge that only very small amounts may enter food through processing and cookware — a non-quantified statement consistent with the testing record noted above.

We would draw the Department's particular attention to what US-FDA did in January 2025, under the Biden Administration, because it is an example of a regulator applying to PFAS food-contact uses precisely the distinction the New Mexico Legislature drew.

On January 3, 2025, US-FDA issued a notice in the Federal Register determining that 35 food contact notifications related to PFAS were no longer effective, effective January 6, 2025. Those notifications had authorized grease-proofing coatings applied to paper and paperboard food packaging. US-FDA has stated that this action, combined with its earlier work on long-chain PFAS, removes all PFAS grease-proofers with known safety concerns from the market, and that completing that phase-out eliminates the primary source of exposure to PFAS from authorized food contact uses.

Two features of that action bear on the Department's inquiry. First, US-FDA reviewed PFAS in food-contact applications comprehensively and removed an entire category of authorized uses. Second, having done so, it left the authorization for perfluorocarbon resins at 21 C.F.R. § 177.1550 — the authorization under which fluoropolymer cookware coatings are used — in place.

This was not inattention. It was an agency with full jurisdiction over food-contact materials, conducting an active PFAS review, deciding which authorized uses to withdraw and which to retain — and characterizing the uses it withdrew as the primary exposure source. We would note as well that this determination was made under the prior Administration, which was pursuing PFAS regulation vigorously across multiple agencies. It was not the product of a deregulatory posture.

The federal regulator with the deepest evidentiary base on food-contact PFAS has therefore drawn the same line the New Mexico Legislature drew; that is, not all PFAS in food contact present the same risk, and fluoropolymer cookware coatings fall on the retained side of that line.

In Europe, the German Federal Institute for Risk Assessment (BfR) concluded in February 2025 that no adverse health effects are expected from PTFE non-stick surfaces, and that inert particles, if ingested, pass through the body unchanged.

D. Possible health impacts

What we would ask the Department to weigh here is convergence. Independent bodies, applying different methods in different jurisdictions, all reached the same conclusions—that PTFE is safe: the European Food Safety Authority (EFSA), the International Agency for Research on Cancer (IARC), Health Canada, the Interstate Technology and Regulatory Council, and the American Cancer Society.

PFOA and PFOS have already been phased out of commerce in the U.S. Those are the compounds behind the health findings most often cited in support of broad restriction. Fluoropolymers are a different material with different properties, and sharing a definitional label with PFOA and PFOS is not a reason to treat them the same way.

Lee, Kang, *et al* found that tested PTFE for toxicity using two sizes of polytetrafluoroethylene (PTFE) microplastics, approximately 5 µm and 10–50 µm, which were manufactured and used for single and four-week repeated toxicity and pharmacokinetic studies. Toxicological effects were comprehensively evaluated with clinical signs, body weight, food and water consumption, necropsy findings, and histopathological and clinical-pathological examinations. Blood collected at 15, 30 60, and 120 min after a single administration of microplastics were analyzed by Raman spectroscopy. In the toxicity evaluation of single and four-week repeated oral administration of PTFE microplastics, no toxic changes were observed. (The study is being submitted as an accompaniment to this letter.)

We also offer a body of evidence from the medical-device field, and we state its scope precisely. PTFE has been used to coat pacemakers planted into human bodies since the early 1960s. PTFE continues to coat stents, catheters, vascular grafts, and sutures.

In evaluating fluoropolymers as used in implantable and interventional medical devices, the US-FDA has stated that fluoropolymers are typically comprised of molecules too large to cross cell membranes and are therefore very unlikely to cause toxicity to patients. US-FDA partnered with ECRI on an independent review drawing on more than 1,750 published, peer-reviewed articles and real-world surveillance across more than 1,800 health care providers; that review found no conclusive evidence of patient health issues associated with PTFE as a material.

That work was conducted in the medical-device context, and we do not present it as a cookware finding. We offer it because it evaluates the same polymer under conditions of sustained internal contact considerably more demanding than food preparation, by an independent reviewer applying a large evidence base. The Department should view this this for what it is — which, in our submission, is substantial evidence after decades of use by the highly cautious medical profession.

And to be clear, the temperature of cookware during normal use does not distinguish its safety from that of PTFE's use in medical devices. A pan would have to be heated to about 800°F for approximately 2 hours in order for measurable degradation to occur. Your home would be filled with smoke long before then and any food in the pan would be incinerated. A study by Alaboodi, et al. (2024) demonstrated that for the pans measured, PTFE exposure to temperatures of 842 °F/ 450 °C for 2 hours caused the pans to lose only 0.05-0.1g of material.

On the Legislature's premise

HJM 3 asked whether the literature remains limited. The answer is no; the body of science is vast and the direction of the evidence has been consistent, not mixed. We cite independent, refereed, science journal articles; not industry funded or commissioned studies. We would welcome the Department testing that proposition against the sources listed in the Appendix, which we are happy to provide, as well as the studies we are submitting to accompany this letter.

V. Removal would forfeit affirmative health benefits

The Department's report is asked to assess the public health risks of the exemptions. The public health consequences of removing them should be likewise considered, because in this product category those consequences are real and measurable.

A. Cookware: the cooking surface sets the dose of added fat

Non-stick cookware uniquely enables low- and no-fat home cooking. This is not a marketing claim; it is measurable at the pan. Consumer testing found that releasing a fried egg required no added oil in a fluoropolymer-coated pan, versus approximately one teaspoon for ceramic, one and a half teaspoons for stainless steel, and two tablespoons for cast iron.

The public health significance follows from how households actually cook:

- Most Americans who cook at home cite health as their primary motivation (63 percent), and home cooking is associated with better dietary outcomes (Wolfson et al., 2015).
- Roughly 60 percent of recipes call for added fat, with butter — a saturated fat — the second-most-used at 32 percent.
- Approximately 70 percent of households use non-stick cookware, valuing it for easy release (37 percent) and easy cleanup (31 percent).
- If non-stick were unavailable, 75 percent of consumers report they would compensate by seasoning pans or using more oil — directly undercutting the health rationale.

Repeatedly heated cooking oils also release aldehydes and acrolein, which are associated with adverse health effects. A measure that predictably increases the volume of oil used and reheated in New Mexico kitchens carries a health cost that should appear in the Department's analysis. Cooking fats are themselves a recognized burden on municipal wastewater systems, where fats, oils and grease contribute to line blockages and complicate treatment — a cost borne by the same public infrastructure HJM 3 identifies among the Act's concerns.

Heart disease is the leading cause of death in New Mexico, accounting for close to one in five deaths and averaging roughly 3,406 deaths annually over the past decade, according to the New Mexico Department of Health. A measure that predictably increases cooking fat use and shifts consumption toward processed and restaurant food carries a cardiovascular cost that belongs in the Department's analysis.

B. Small kitchen appliances: three functions with no equivalent substitute

The exemption's effect on small electric appliances deserves separate treatment, because the functions are different and the alternatives are weaker.

Hot-liquid and beverage conveyance

In coffee and espresso appliances, fluoropolymer linings ensure chemical inertness under sustained, controlled heat and pressure, preventing corrosion and the migration of metal ions into the beverage stream. Removing them would introduce a direct and inadequately studied food-safety risk into a product category used daily by probably most of New Mexico's 800,000 households.

Internal sealing and mechanical components

Fluoroelastomer seals that can be wetted by beverages maintain the barrier between the food-contact zone and the mechanical interior of motor-driven and pressurized appliances, under chemical exposure, controlled heat, and abrasion. Seal failure in a high-temperature, high-pressure system is a safety matter and a contamination pathway. Seals are also used for room temperature or cooled beverages for durability and cleanability. Seal durability also determines how often a consumer must replace the entire appliance — a point that bears on the waste analysis in Section VII.

Food-contact cooking surfaces in appliances

Waffle plates, sandwich grills, woks, and similar geometries depend on non-stick release for their core function, and are physically incompatible with bare-metal substitution. Removal of the coating without substitution does not degrade the appliance; it eliminates the function that defines it.

New Mexico's exemption ensures that these products remain available to New Mexico households. Maine has taken the opposite course: having declined to grant a currently unavoidable use determination for fluoropolymer components in small kitchen appliances, the state has intentionally brought coffee machines into the scope of its cookware restriction. Maine is the only jurisdiction in the United States, Canada or Europe to have reached that result. It is a concrete illustration of what removing an exemption means in practice — not a narrowing of a product category, but the disappearance of a functioning household appliance as popular as coffee machines from the market. And all the while, PTFE is proven to be perfectly safe. We ask the Department to preserve New Mexico's approach.

A distinction the Department should preserve is internal components

In many of these applications — internal seals, valves, and internal liquid pathways — the fluoropolymer is an engineering element within the sealed body of the appliance. It is not a surface the consumer handles, and in most cases not one that the consumer will ever see.

The Department has already recognized this distinction. The current regulation permits a label waiver where a product appears on the exemption list and there is no direct consumer contact with the substance. That provision reflects a considered judgment that excluding fluoropolymers for practical reasons will not impact human health or the environment.

That recognition, however, is conditioned on exemption-list status. If fluoropolymers were removed from the list, the waiver would become unavailable to these products as a matter of eligibility, regardless of whether consumer contact occurs. A sealed internal component that the consumer never

touches would be treated identically to a food-contact surface — not because the exposure facts had changed, but because the mechanism that recognized them had been withdrawn.

We ask the Department to weigh that consequence explicitly. Delisting would have two distinct effects: the phaseout, and the loss of a waiver provision the Department itself designed to calibrate obligations to actual exposure. The second is easily overlooked, and it would apply to a substantial share of fluoropolymer use in small appliances — internal seals, valves, and liquid pathways within sealed bodies, which perform safety and containment functions without ever contacting the user.

VI. No reasonably available alternative exists

A. Documented performance gap

Ceramic coatings are not intrinsically non-stick. They are often cited, however, as the best alternative to PTFE-coated nonstick pots and pans. Their release performance depends on modifiers that degrade with heat and washing (Rossi et al., 2022). The measured consequences:

- In the 2012 National Advertising Division proceeding *DuPont v. GreenPan Thermolon*, the ceramic surface failed a standardized egg-release test at its 10th cycle (2.45 of 5), while the fluoropolymer surface averaged 4.7 after 10 cycles and did not fail until its 67th (4.08 of 5).
- An April 2025 study found that after 90 cooking cycles the lowest-performing ceramic surface required nearly nine times more force to release food than a fluoropolymer-coated pan, and that fluoropolymer coating offered the best protection against impact wear.
- Consumer research confirms ceramic cookware wears out and is replaced sooner (Palermo, 2020).
- Independently, the New York Times' Wirecutter has advised readers against relying on ceramic non-stick pans, concluding that fluoropolymer coatings retain non-stick performance substantially longer.

B. Bare metals, alternative polymers, and elastomers

Cast iron, stainless steel, and raw aluminum lack intrinsic non-stick performance; even with added oil, release is inferior. For hot-liquid pathways and sealing applications, unlined metal, silicone, thermoplastics, and common elastomers including NBR and EPDM each fail on at least one of the required axes — chemical inertness, thermal stability, or durability — and none carries equivalent food-contact authorization that nonstick cookware has obtained from the US-FDA.

C. Cost — and the Act's own reasonable-availability criterion

The regulatory definition of "reasonably available" includes comparable costs, and changes to the manufacturing process. On the market data, no alternative to fluoropolymer-coated cookware meets that standard.

Beginning with initial purchase price, before any adjustments, independent market data (Circana NPD, L52W, May 2026) shows fluoropolymer-coated cookware averaging \$36.63, versus \$51.30 for ceramic, \$43.44 for uncoated cookware, and \$62.69 for other specialty products. Fluoropolymer-coated cookware is the least expensive option in the category on the day of purchase — including against bare metal. That comparison requires no methodology at all.

The gap widens when service life is accounted for, which is the measure that matters to many households focused on affordability today. The durability differential is taken from the 2012 National Advertising Division proceeding *DuPont v. GreenPan Thermolon*, in which the ceramic surface failed a standardized egg-release test at its 10th cycle while the fluoropolymer surface did not fail until its 67th — a ratio of approximately seven to one, which we apply as the replacement-frequency assumption.

Cast iron and stainless steel likewise cost more on average, and cast iron carries practical accessibility burdens — weight, storage, and lifting — that matter disproportionately for older consumers.

In New Mexico, fluoropolymer-coated cookware averages \$41.34 and ceramic averages \$53.41. Applying the same replacement-frequency assumption, a New Mexico household choosing ceramic cookware would face roughly \$374 in cookware cost over the same period in which it would spend just \$41 on fluoropolymer-coated cookware.

The distributional consequence follows. Purchaser data (Stackline Shopper, L52W) show 51.3 percent of fluoropolymer-coated cookware buyers earning under \$75,000. Ceramic purchasers skew higher income, with 53.9 percent earning above \$75,000. Removing the fluoropolymer option would not remove a cost from New Mexico households. It would transfer one, and it would fall most heavily on those least able to absorb it.

D. The alternative – Ceramic - is less studied — and carries its own emerging regulatory risk

Ceramic coatings have not been studied for the same duration or with equivalent rigor as fluoropolymers, which as we've submitted, have been US-FDA-authorized for food contact since the early 1960s, and are among the most examined materials in the entire food-contact space.

Further, the process depends on siloxane precursors — the precursors to the silicone oils in ceramic coatings — which are themselves attracting increasing regulatory scrutiny, and curing generates volatile organic compound emissions that fluoropolymer coating does not.

Substituting a less-studied material, with an active and unresolved regulatory profile, for a well-characterized and extensively reviewed one is not a precautionary outcome. At minimum, we submit that the Department should expect the same standard of scrutiny for the proposed alternative as has been applied to the incumbent before recommending a substitution. We all want to avoid regrettable substitutions, lessons we learned when BPA was replaced by BPS and BPF, and incandescent light bulbs were replaced by CFL bulbs—only to learn later that the replacement was as bad, if not worse, and the original product being phased out.

E. Manufacturing and supply-chain consequences

Ceramic coating on cookware cannot be roller-applied; because cured ceramic cannot be re-formed, it requires spray application. Converting coating lines would raise production costs by an estimated 10 to 15 percent in capital expenditure, downtime, and requalification. Because spray-configured infrastructure is concentrated in Asia, a forced transition would advantage offshore production — particularly in China — and erode U.S. and allied manufacturing capacity, without a demonstrated health or environmental benefit.

VII. Removal would worsen environmental and safety outcomes

This section bears most directly on the Department's own mission, and we would encourage close examination of it.

A full product life-cycle assessment of the two coating technologies (Maabi cookware LCA) finds that ceramic's overall health and environmental footprint is materially higher than fluoropolymer's. Two findings drive the result:

- **Cooking fats dominate the life-cycle impact.** Fats and oils account for roughly 40 percent of a coated pan's total life-cycle impact — the single largest contributor — and ceramic requires added oil far more often than fluoropolymer coating (on the order of 100 percent of cooking occasions versus 71 percent).
- **Shorter service life compounds everything.** Ceramic must be replaced roughly seven times more often over the same period of use, multiplying upstream manufacturing and raw-material burden, and generating on the order of seven times more end-of-life waste going into municipal and rural landfills.
- **Cooking causes most house fires in the U.S.** Every year in the United States, cooking oil ignites roughly 170,000 home fires, kills 135 people, and causes nearly half a billion dollars in property damage. In addition, when heated past its smoke point — which most home cooks exceed routinely, without noticing — oils release fine particulate matter, aldehydes, and acrolein into unventilated kitchen air. When poured down the drain, oil congeals into the blockages that drive untreated sewage into streets and waterways.

HJM 3 identifies municipal solid waste management and disposal infrastructure as one of the cost burdens the Act was intended to address. On the life-cycle evidence, removing the fluoropolymer exemption would increase the volume of cookware entering New Mexico's waste stream by a substantial multiple. That is the opposite of the outcome the Legislature sought when passing the PFAS Protection Act. We recognize that end-of-life for nonstick cookware is a legitimate area of concern.

VIII. Equity and access for New Mexico households

HJM 3 asks the Department to assess economic risk. The distributional dimension is, in our submission, the most important part of that assessment.

As we've already highlighted, market data show fluoropolymer-coated cookware buyers skewing toward lower-income households — 51.3 percent earning under \$75,000, compared with 46 percent for ceramic. Ceramic buyers skew higher income. Removing the affordable option therefore shifts cost onto precisely the households least able to absorb it, and toward products that cost more and last less.

These figures land on a population less able to absorb added cost than most. According to the American Community Survey, the median household income in New Mexico is \$67,816, approximately 80 percent of the national median household income of \$81,604. The share of New Mexicans living below the poverty line is 16.4 percent, roughly 34 percent higher than the national poverty rate of 12.2 percent. Analysis of Census county-level income data indicates that in 32 of New Mexico's 33 counties, median household income falls below the U.S. average.

Geography compounds this. New Mexico's population density is approximately 17 people per square mile, against a national average of roughly 94. For households distant from full-line retailers, the practical range of cookware available locally is narrower than a statewide market analysis would suggest, and the cost of traveling to obtain an alternative is a real component of the price. Where the affordable option is removed from the shelf, the substitute is not simply more expensive — for some households it is materially harder to obtain at all.

The combination is what concerns us. Fluoropolymer-coated cookware is the least expensive option in the category at initial purchase, and its purchasers skew lower-income. New Mexico households have roughly four-fifths of the national median income to work with, face poverty at nearly one and a half times the national rate, and the Western region of the U.S. has the highest cookware prices in the country. A measure that removes the accessible—but perfectly safe—option from this market does not distribute its costs evenly. It concentrates them.

We note that the Legislature required labeling in both English and Spanish, including for exempt products — a recognition that New Mexico's consumer protections must reach households in practice and not only in form. We would ask that the same practical consideration extend to affordability and access.

IX. What removal would communicate to New Mexico households

The Department's consumer materials advise New Mexicans that PFAS can enter the body and remain there for decades, that these substances may take up to a thousand years to break down in nature, and that the class is associated with cancer, liver disease, kidney damage, impaired immunity, and reproductive problems. For the mobile, bioavailable compounds that drove the Act, such as PFOA, PFOS and Gen-X, those communications are appropriate and well founded.

They attributes do not describe fluoropolymers, however. The evidence set out in Section IV indicates these materials are not absorbed into human bodies or water, do not bioaccumulate, are non-toxic, and do not meaningfully migrate into food. If the exemption were removed, however, that is nonetheless the message New Mexico households would receive about the cookware in their kitchens, which is not grounded in evidence.

A regulatory determination carries a communicative effect as well as a legal one. We would ask the Department to consider whether conveying that misleading specific set of associations — cancer, liver disease, reproductive harm — in relation to a material the evidence indicates does not enter the body and is perfectly safe, serves the public understanding the PFAS Protection Act was meant to advance.

X. Responses to the principal arguments for removal

We anticipate the Department will receive comment urging removal. We address the likely arguments directly, and we would welcome the chance to respond to any others the Department finds persuasive.

Argument for removal	Response
“Fluoropolymers are PFAS by definition, so they should be regulated as PFAS.”	The definitional point is accepted — we have never argued otherwise. But the Legislature drew the line at fluoropolymers knowing that, and drew it by molecular architecture rather than by product category. The US-FDA drew the same distinction in January 2025, withdrawing 35 PFAS food-contact authorizations for paper grease-proofers while retaining the authorization covering fluoropolymer cookware coatings. The question for the report is not classification but consequence: whether removal would reduce the contamination and costs HJM 3 identifies. It will not. Sections III and VII address that.
“Fluoropolymer manufacture emits PFAS of concern.”	This concern was legitimate; however, it is about upstream chemistry, not the finished consumer good. The PTFE used by the cookware industry represents less than 1% of global PTFE produced each year. The “PFAS of concern” raised here is primarily PFOA, which was completely phased out of manufacturing throughout the U.S. in 2013. In other words, a retail prohibition in New Mexico reaches no manufacturing process anywhere and leaves 99% of the market untouched.
“Disposal and incineration release PFAS.”	A legitimate concern, and the one we take seriously. Removal is worse, not better: the life-cycle evidence indicates the alternative generates on the order of seven times more end-of-life waste over the same period of use. We propose addressing disposal directly through collection and recycling. See Sections VII and XIII.
“The precautionary principle favors removal.”	Applied evenly, it does not. The proposed substitute is less studied, less durable, and depends on precursors under active regulatory scrutiny, with VOC emissions the incumbent does not generate. The Fiscal Impact Report to HB 212 acknowledged there is no current consensus on a safe level of PFAS; where uncertainty is general, precaution supports differentiation rather than uniform prohibition, and it also supports retaining the extensively characterized material until the alternative has been examined to a comparable standard, to avoid regrettable substitutions.
“Other states restrict this category.”	The trend runs the other way. Illinois removed cookware and directed a fluoropolymer risk assessment; Vermont delayed its cookware provision after reviewing the science; California’s SB 682 cookware phase-out was vetoed over affordability and access. See Section XI.
“Safer alternatives exist.”	“Alternative” and “safer” are distinct findings. Section VI sets out the documented performance, cost, and study-depth gaps. We would ask that any alternatives finding rest on evidence specific to the alternative, not on the absence of evidence about it.

XI. The broader regulatory record supports continuation

Since New Mexico acted, other jurisdictions have moved in the same direction of keeping either cookware, or fluoropolymers, or both, out of PFAS product bans. Illinois removed cookware from its

restriction and directed a fluoropolymer risk assessment. Vermont delayed its cookware provision after reviewing the fluoropolymer science. California's SB 682 cookware phase-out was vetoed over affordability and access concerns.

Developments in Europe are even more striking. In mid-2026, four European governments — Germany, Belgium, Slovakia, and the Czech Republic — filed comments in the European Chemicals Agency's socio-economic assessment consultation on the proposed universal PFAS restriction, opposing a universal ban as an approach. Germany, which was among the original architects of that restriction, cautioned that a universal restriction risks disproportionate burdens and enforcement gaps, particularly for downstream users and specialized applications.

When governments that helped design the world's most ambitious PFAS restriction revisit their treatment of fluoropolymers specifically, that is material the Department's report should reflect.

New Mexico was the first state to enact a fluoropolymer exemption, and you did so with near-unanimous support in both chambers and support of environmental groups. That is worth recording. The provision was not an oversight; it was a considered judgment, adopted by wide bipartisan margins, that a class of thousands of chemicals should not be regulated as though every member behaved identically. Developments around the world since then suggest New Mexico was early rather than wrong.

XII. Requested recommendation

The Cookware Sustainability Alliance respectfully requests that the Department's report to the Governor and Legislature **recommend that the fluoropolymer exemption at Section 3 of the Act be continued.**

We would welcome the opportunity to meet with Department staff, to answer questions, and to provide any of the underlying studies referenced here. We would particularly welcome hearing what evidence the Department considers still missing. If there are gaps we can help fill, we would prefer to fill them than to have the report rest on an incomplete record.

Thank you for your consideration and for the opportunity to participate.

Respectfully submitted,

(submitted electronically)

Steve Burns, President, Cookware Sustainability Alliance

Appendix: Sources referenced

Offered for the Department's convenience. Full copies available on request.

Category	Source
Classification	OECD, Synthesis Report on Understanding Fluoropolymers and Their Life Cycle
Hazard assessment	Peer-reviewed critical review applying polymer-of-low-concern criteria, Integrated Environmental Assessment and Management, Vol. 19, No. 2, 326–354
Environmental fate	Environmental-fate study, September 2025
Migration testing	dTest (Czech Republic), laboratory testing of damaged non-stick cookware, October 1, 2025
Health assessment	German Federal Institute for Risk Assessment (BfR), February 2025
Health assessment	EFSA; IARC; Health Canada; Interstate Technology and Regulatory Council; American Cancer Society
Federal framing	U.S. EPA, Our Current Understanding of the Human Health and Environmental Risks of PFAS
New Mexico legislative record	Fiscal Impact Report accompanying House Bill 212 (2025)
Medical-device context	FDA / ECRI independent review (2021; further FDA statement August 2025) — medical-device scope
U.S. food-contact authorization	21 C.F.R. § 177.1550, Perfluorocarbon resins
FDA PFAS food-contact action	FDA notice, Federal Register, January 3, 2025 — determination that 35 PFAS-related food contact notifications (paper/paperboard grease-proofers) are no longer effective, effective January 6, 2025; FDA, Authorized Uses of PFAS in Food Contact Applications
Durability and performance	Rossi et al. (2022); NAD, DuPont v. GreenPan Thermolon (2012); peeling-force study (April 2025); Palermo (2020)
Independent consumer testing	The New York Times / Wirecutter, non-stick cookware evaluations
Home cooking and diet	Wolfson et al. (2015); consumer research on cooking motivation, recipe fat use, and substitution behavior
Life-cycle assessment	Maobi cookware life-cycle assessment
Market and pricing data	Circana NPD, L52W, May 2026

Category	Source
European regulatory	ECHA socio-economic assessment consultation comments — Germany, Belgium, Slovakia, Czech Republic, mid-2026
Multistate record	Illinois cookware removal and risk assessment directive; Vermont cookware delay; California SB 682 veto