

Air Force Warns EPA Stance May Spur Widespread Pesticide Cleanups

The Air Force is strongly criticizing an informal EPA policy requiring cleanup of pesticide residuals when the intended use of the chemical changes, warning that the policy could open a “Pandora’s box” that could require massive and costly cleanups of contaminated former farmland that may be slated for residential development. The Air Force recently questioned whether EPA is applying the policy in an ad-hoc manner, subjecting the military to the policy’s requirements while not applying it to private parties. The service is urging EPA officials to launch a formal rulemaking if it is changing its interpretation of current waste regulations that exempts pesticides applied for their intended use from the regulatory definitions of solid waste — and related cleanup requirements. **Waste Policy, Page 3.**

Activists Fear Japan’s Nuclear Cleanup Levels Could Undermine EPA Policies

Environmentalists fear that controversial radiation exposure limits Japan is using to set cleanup goals for areas contaminated by the Fukushima nuclear power plant disaster could set an international precedent that could undermine EPA’s Superfund cleanup levels and their efforts to strengthen EPA’s draft nuclear emergency guide. Activists say that the dose range Japan is looking to use in its cleanup approach is equivalent to between 100 and 2,000 millirem per year, with the level at the higher end causing a 1 in 500 cancer risk. This is significantly higher than the worst-case 1 in 10,000 cancer risk that EPA permits when cleaning up a site. **Radiation, Page 22.**

Planned EPA Risk Value For DNT Could Aid Army Cleanups, Activists Say

EPA is developing a provisional peer-reviewed toxicity value (PPRTV) for technical grade dinitrofluorene (DNT), a move environmentalists say could provide the agency and state regulators with leverage needed to require testing and cleanup of some of the less common forms of the explosive at former military sites around the country. While the agency already has a risk value for two forms of DNT, the forthcoming PPRTV for technical grade DNT will be the first EPA toxicity value to address the four less known DNT isomers. **Federal Facilities, Page 6.**

Kansas Backs Activist Call For EPA To Repeal Waiver For Oil, Gas Waste

Kansas — an oil-and gas-producing state — is siding with environmentalists in urging EPA to scrap a longtime exemption for exploration and production (E&P) wastes from strict Resource Conservation & Recovery Act hazardous waste rules, fearing adverse environmental and agricultural impacts from land disposal of the waste. A Kansas state waste official recently told a national meeting of state waste regulators that the exemption could limit burgeoning natural gas operations because state permit writers do not know how to handle E&P wastes from the operations. **Drilling, Page 10.**

Strict Coal Ash Rules Pushed

Environmentalists are redoubling their efforts to pressure EPA to strictly regulate coal ash, citing EPA’s 2010 draft risk assessment suggesting arsenic — a toxic contaminant found in coal ash — may be 17 times more carcinogenic than previously thought. Activists say this increased risk requires tighter controls. **Page 13.**

EPA To Issue Perc Assessment

EPA is poised to release its long-delayed Integrated Risk Information System (IRIS) assessment of the ubiquitous solvent perchloroethylene (perc), which is often used in dry-cleaning and metal degreasing, though the Department of Defense is concerned with how EPA conducted its assessment and is calling for heightened scrutiny of the assessment. **Page 14.**

Lead Rule Suit Questioned

Federal appellate court judges appeared skeptical at oral arguments over industry’s claim that the Obama EPA lacked authority to reverse a Bush-era policy allowing home renovators to “opt-out” of complying with EPA’s rule to reduce lead paint exposure without providing new information to justify the change, with the judges suggesting that the agency has the discretion to protect human health however it sees fit so long as it does not violate federal law. **Page 18.**

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Background Documents For This Issue

Subscribers to InsideEPA.com have access to hundreds of documents, as well as a searchable archive of back issues of *Superfund Report*. The following are some of the documents available from this issue of *Superfund Report*. For a full list of documents, go to the latest issue of *Superfund Report* on InsideEPA.com. For more information about InsideEPA.com, call 1-800-424-9068.

Documents available from this issue of *Superfund Report*:

- EPA Emphasizes 'Leveraging' In Brownfields Grant Guidelines (2382014)
- Wisconsin Regulators Withdraw Novel DNT Cleanup Requirement (2382015)
- Oil Industry Says Catalyst Issue Not Resolved By DSW Proposal (2382019)
- Activists Fear Precedent Set By Japanese Nuclear Cleanup Levels (2382025)
- GAO Finds EPA Has Work To Do On Integrating Environmental Justice (2381673)
- Environmentalists Urge EPA To Speed Risk Estimate For Chromium 6 (2377807)
- DOE Advisers Press To Speed Oversight Of Fracking (2381817)

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Air Force Warns EPA Stance Opens Door To Widespread Pesticide Cleanups

The Air Force is strongly criticizing an informal EPA policy requiring cleanup of pesticide residuals when the intended use of the chemical changes, warning that the policy could open a “Pandora’s box” that could require massive and costly cleanups of contaminated former farmland that may be slated for residential development.

At the annual meeting of the Association of State & Territorial Solid Waste Management Officials (ASTSWMO) in Bethesda, MD, Oct. 27, Mark Trost, an Air Force senior environmental restoration attorney, questioned whether EPA is applying the policy in an ad-hoc manner, subjecting the military to the policy’s requirements while not applying it to private parties.

“The ugly reality is you can’t make that fine a distinction. You can’t [keep] Pandora in that box,” he said.

The Air Force is urging agency officials to launch a formal rulemaking if it is changing its interpretation of current waste regulations that exempts pesticides applied for their intended use from the regulatory definitions of solid waste — and related cleanup requirements.

EPA’s acting federal facilities cleanup chief Reggie Cheatham said officials are tentatively taking steps to examine the informal policy to assess its fairness and consistency with the agency’s Resource Conservation & Recovery Act (RCRA) program. EPA wants to ensure that all parties are treated equitably, he said, adding that the agency is discussing whether it is being consistent in its guidance, and ultimately will talk to states about how they are approaching the issue, he told the state forum.

State sources note regulators are recognizing that the issue of pesticide residuals could be a major cleanup issue and potential “minefield” since the pesticides at issue — organo-pesticides such as chlordane — were once legal and widely used but are now banned, although they persist in the environment years after application. But states do not have a coherent strategy on whether they want further clarity from EPA on the issue.

At issue is EPA’s stance at the Kansas Army Ammunition Plant in Parsons, KS, where it is attempting to require cleanup of pesticide residuals — including residuals from the now-banned pesticides chlordane, heptachlor, aldrin and dieldrin that were originally applied on and around buildings to prevent termite damage.

Such residual contamination is generally exempted from RCRA corrective action requirements if it is applied in accordance with its “intended use.”

But EPA waste chief Mathy Stanislaus, in a March 4 letter to the Kansas congressional delegation, says that cleanup is now required because the buildings around which the pesticides were applied are slated for demolition — so the chemical’s intended use is no longer applicable

In the letter, EPA contends the so-called “intended use” exemption for pesticides ends when it is decided that buildings around which the pesticide was applied will be demolished (*Superfund Report*, April 4). “Once a structure is no longer useable or is slated for demolition, the pesticides no longer serve their intended purpose,” Stanislaus wrote. “In addition, the sale of buildings with the knowledge that they are to be demolished constitutes ‘disposal’ triggering RCRA authority.”

Stanislaus said the policy applies “in the same manner and to the same extent” at federal facilities as it does at non-federal RCRA permitted facilities, and is intended to prevent contamination and protect future property owners from cleanup costs.

But Trost questioned EPA’s underlying rationale, asking how the agency would be able to limit application of its approach to the buildings slated for demolition and sale at the Parsons site but not apply it to farmland that is slated for residential development. How does that not apply to a farmer? he asked.

“The costs you are going to be imposing because of these rules are incredible,” he said, alluding to the wide-scale past use of the pesticides.

But Cheatham said EPA’s response at the Kansas Army site is clear — when the building is demolished, the pesticide is no longer there for its intended use — and said addressing those residual pesticides is largely driven by RCRA permit conditions. Once it is determined to be a waste, that triggers the characterization stage, he said afterward. Following that is a more complicated process, with states at the meeting stressing the importance of future land use as a trigger for cleanup, he said.

When asked whether regulators should provide more clarity on the issue, an Air Force spokeswoman says the service would prefer EPA and states to make a formal rulemaking, noting that current EPA regulations exclude pesticides from the solid waste definition if they are applied in an ordinary manner of use. The spokeswoman also says EPA

“This issue manifested itself at a federal facility most recently, but the issue is bigger than federal facilities.”
— Reggie Cheatham, EPA acting federal facilities cleanup chief

should treat all parties — whether federal or not — in the same manner, as is required under federal waste law.

In an interview with *Inside EPA* following the discussion, Cheatham sought to downplay EPA's role in the issue. He said that generally states with delegated RCRA authority are required to decide the issue but that the agency has a larger role in this case because Kansas does not have fully delegated authority. He said the agency weighed in because Kansas lawmakers asked for the agency's stance, noting that the agency did not craft that response with the intention of characterizing the scenarios related to farmland and emphasizing that EPA is not targeting farmers on this matter.

Nonetheless, Cheatham noted that regional RCRA directors are discussing the implications of Stanislaus' Kansas memo. "This issue manifested itself at a federal facility most recently, but the issue is bigger than federal facilities," he said. "We're trying to assess what is it we do, what is it our states do," recognizing the military will argue its treatment in Kansas differs from elsewhere, he said. All parties should be treated equally, he noted.

But Mark Weegar, a former Texas regulator who now works for industry, said at the ASTSWMO forum that it is currently unclear in both state regulation and RCRA when a product applied for its intended purpose becomes a solid waste. The solid waste definition has to apply to the pesticides in order for state regulations to apply, he pointed out.

Generally, state regulators who spoke at the meeting said they followed the same standards for all parties, and the cleanup of pesticide residuals was driven by future land use. If farmland is going to be used for unrestricted use, then a cleanup would be required, said Isabella Alasti of the California Department of Toxic Substances Control.

Illinois EPA's Clarence Smith agreed that future use of the property drives the cleanup. He noted that in one case, which was resolved with the Air Force, the state told the service that the chlordane contamination "falls in this regulatory black hole." Smith remarked that the various military departments "have been all over the place with this because it's an insidious problem with all the sites, given the age of the infrastructure that they have [and] the use of those types of materials that are out there."

A New Jersey regulator at the meeting said the Garden State, unlike some other states, lacks the statutory authority at the state level to require cleanup of pesticide residuals from agricultural applications. Nonetheless, the state lets developers know that they will likely face pesticide contamination concerns — possibly with disclosure — if they don't address the matter.

One state regulator told *Inside EPA* following the meeting that the discussion showed regulators recognizing they could face a big problem. These pesticides were widely used, the source says, noting that there are questions over resources to address this issue and holding property owners liable for legally using a product. There was some reluctance for states to "jump out" on this issue because this is a "bit of a minefield," the source says. States do not have a coherent strategy on whether they want further clarity from EPA on this, the source says, although the source notes that any changes in the definition of solid waste would have to come from EPA.

Because these pesticides persist in the environment, they can still drive a significant amount of risk at sites, the source says. One question that will eventually have to be resolved are cases where the pesticide was applied in greater quantities than the recommended amount, the source says, questioning whether that would be considered going outside of a pesticide's intended use. — *Suzanne Yohannan*

Oil Industry Says New DSW Proposal Doesn't Moot Spent Catalyst Lawsuit

Oil industry officials say EPA's latest proposed amendments to its definition of solid waste (DSW) rule do not adequately address their concerns regarding regulatory exemptions for the recycling of spent petroleum refinery catalysts and are vowing to push forward with a lawsuit on the issue.

While acknowledging that the proposal could moot some of their legal arguments, the American Petroleum Institute (API) says in a Nov. 4 letter to the U.S. Court of Appeals for the District of Columbia Circuit that "API's claim that the recycled catalysts cannot reasonably be viewed as discarded," a label that would make them subject to strict hazardous waste management requirements, "(regardless of how other materials are treated) would *not* become moot."

EPA in July proposed to amend a Bush-era DSW rule that relaxed certain waste management requirements on many industries in the interest of promoting recycling. The new proposal would tighten many of those requirements, prompting praise from environmentalists and state regulators but widespread disapproval from industry officials (*Superfund Report*, Oct. 31).

Prior to EPA's proposed amendments, petroleum refiners argued the Bush-era rule, which EPA finalized in 2008, was too stringent because it made certain petroleum refinery catalysts ineligible for the so-called transfer-based exclusion that the Bush-era rule allowed for other items. Under the transfer-based exclusion, companies that transfer certain spent materials to third parties for recycling purposes can be exempted from complying with certain waste management requirements.

API sued EPA over this issue, arguing that it was improper for EPA to grant other spent materials the exemption but

not spent petroleum refinery catalysts.

But under EPA's latest proposal the transfer-based exclusion would be eliminated entirely, which, API officials acknowledge in their letter to the DC Circuit, could make the question of whether spent petroleum refinery catalysts should be eligible for that particular exemption moot. The DC Circuit is scheduled to hear oral arguments in API's challenge to the DSW rule, *API v. EPA*, Dec. 12.

In the new proposal, EPA notes that it is proposing to more stringently define the circumstances under which it would consider spent materials to be properly "contained" and says that this "provision, if properly implemented, could address the pyrophoric properties of the spent petroleum catalysts (as well as other types of reactivity)" that had prevented the agency from granting the catalysts regulatory exemptions under the 2008 rule.

EPA in the proposal requests "comment on whether this provision would adequately address the potential for discard of spent petroleum catalysts due to fire and explosions, thereby allowing EPA to remove the ineligibility of [the spent petroleum refinery catalysts] from the DSW exclusion, and on other regulatory options, including adding more conditions (such as specific container standards) [for] pyrophoric materials to the exclusion" (*Superfund Report*, July 25).

But given the proposed elimination of transfer-based exclusion, any potential regulatory relief that the DSW rule could provide would only apply to spent petroleum refinery catalysts recycled "under the control of the generator," as opposed to those that are transferred to a third party for recycling, an API source says.

Therefore, the new DSW proposal "does not propose any meaningful relief," regarding the catalysts, API claims in its letter to the court. "Although EPA proposes to make the catalysts eligible for the generator-controlled reclamation exclusion . . . historically the catalysts have been transferred to third parties for reclamation." *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2382019)*

In addition, in Oct. 20 comments on the rule, API says that "to define the absence of discard, it is sufficient to provide that the catalysts (or any other secondary materials) are 'contained,' just as EPA did in the 2008 DSW exclusions. Materials are either contained or not," API says. "If they are contained, and are genuinely destined for recycling, they are not discarded."

API says that "[a]ssuming (without conceding) that special containment requirements can be relevant to defining discard (or its absence), the language concerning fire prevention that EPA proposes would be entirely adequate. That is, it would be sufficient to provide that the storage unit 'addresses any potential risks of fires and explosions.'"

But the Vanadium Producers & Reclaimers Association (VPRA), which also supports regulatory exclusions for spent catalysts, differs with API on this point. In Oct. 20 comments, VPRA says that "EPA should adopt a more specific definition of 'contained' and a clearer definition of storage requirements. . . The simple statement in the [p]roposal's definition of 'contained' . . . that the unit 'addresses any potential risks of fires' is not sufficient to adequately address this very specific and unique hazard of spent catalysts," VPRA says.

"If EPA were to include spent catalyst within the proposed generic DSW exclusions, EPA must address the specific conditions applicable to the management and reclamation of spent catalyst, and apply them to everyone reclaiming spent catalyst," VPRA says.

Rather than include a catalyst exemption in the broad DSW rule, VPRA says EPA should provide exemptions for catalysts under a separate, catalyst-specific rulemaking. "EPA's proposed dual system of regulation — where spent catalyst under control of the generator (onsite or offsite) would have minimal conditions applied, while third party reclaimers would basically have to meet full current RCRA requirements — makes no sense," VPRA says.

This "dual regulatory approach would allow a refiner to set up a separate facility under its control many miles from its refineries and ship spent catalyst from multiple locations to a reclamation site that would not necessarily have all the protections that might be expected at a full refinery operation," VPRA says. "This approach could result in increased environmental risk . . .

VPRA, which represents third-party recyclers, "believes this would be a mistake because it would unnecessarily deter reclamation by third parties in low metal market conditions and encourage unsafe transport of spent catalyst and incomplete reclamation under the control of the generating company."

API, however, suggests that API should expand a proposed new exemption for "high-value" solvents that are "re-manufactured for the purpose of reacting, extracting, blending or purifying chemicals in the pharmaceutical, organic chemical, plastics and paint industries" to include spent petroleum refinery catalysts.

The re-manufacturing exclusion EPA is currently considering "is too narrow" and "should extend . . . to specific materials other than the limited number of solvents and industry sectors" that the agency proposes, API says, noting that "spent catalysts are frequently regenerated (or "re-manufactured") so that they can substitute for virgin catalysts at refineries. Thus, the catalysts should be eligible for any re-manufacturing exclusion."

EPA officials, however, have in recent months rejected suggestions that they extend the re-manufacturing proposal to other items. The agency is only considering the exemption for companies that recycle solvents used to initiate chemical reactions, the officials have said (*Superfund Report*, Sept. 5).

Planned EPA Risk Value For DNT Could Aid Army Cleanups, Activists Say

EPA is developing a provisional peer-reviewed toxicity value (PPRTV) for technical grade dinitrotoluene (DNT), a move environmentalists say could provide the agency and state regulators with leverage needed to require testing and cleanup of some of the less common forms of the explosive substance at former military sites around the country.

The agency already has an Integrated Risk Information System (IRIS) value for 2,4-DNT and a PPRTV for 2,6-DNT, an EPA source notes. But the forthcoming PPRTV for technical grade DNT will be the first EPA toxicity value to address the other four known DNT isomers, the EPA source says. This is because technical grade DNT is considered to be a blend of all six DNT isomers.

EPA's move to also address the four less common DNT isomers is significant, an environmentalist says, given the Army's resistance to addressing all six DNT isomers when conducting soil cleanups. The Army has in some cases questioned whether regulators have the authority to require that the four less common isomers be addressed, but an EPA toxicity value that addresses all six "could kick the legs out from under the Army's" argument, the activist says.

For example, at the Badger Army Ammunition Plant in Wisconsin, the Wisconsin Department of Natural Resources (WDNR) recently called on the Army to test soil for all six DNT isomers and set cleanup standards if they are detected. The activist group Citizens for Safe Water Around Badger (CSWAB), which has long campaigned for testing of all DNT isomers, called the state's decision precedent-setting (*Superfund Report*, Oct. 3).

But the Army resisted, saying in an Oct. 11 response to WDNR that it questioned the legal underpinnings of the order to test for the four less common DNT isomers, and that it refuses to conduct such tests at this time. WDNR then withdrew the requirement in a Nov. 1 letter to Army officials.

"It has . . . come to our attention that the [Army] and [EPA] are currently examining the issue of testing for these isomers in soil on a nationwide basis through EPA's 'Technical Support Project, Federal Facilities Forum,'" the letter says. WDNR "will defer any further action on this matter until after the deliberations by the Federal Facilities Forum have been completed." *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2382015)*

But the environmentalist says the existence of a federal toxicity value that addresses the four less common DNT isomers could provide leverage against the Army's argument relative to the Badger site, and could be significant at other sites as well.

For example, CSWAB is also urging that testing be expanded to include all six DNT isomers at the Longhorn Army Ammunition Plant in Texas and the Radford Army Ammunition Plant in Virginia. According to EPA's website, EPA and the Army are looking into the issue.

A second EPA source says a PPRTV will help site-specific risk assessors determine what kinds of risks to human health and the environment the four less common DNT isomers may pose, something that is more difficult to do in the absence of a toxicity value.

And Elizabeth Southerland, assessment and remediation division director for EPA's Superfund program, who announced the forthcoming PPRTV Oct. 26 at the Association of State & Territorial Solid Waste Management Officials (ASTSWMO) annual meeting in Bethesda, MD, told *Inside EPA* that agency officials hoped the toxicity value would be "helpful" at the Badger site.

Southerland said that the Agency for Toxic Substances & Disease Registry (ATSDR) assumes that all six DNT isomers are roughly equal in toxicity, but that EPA officials decided a more sophisticated analysis was needed.

The specific assumptions that EPA makes when preparing the PPRTV for technical grade DNT will play a key role in determining whether the value will ultimately be effective in assessing risk at such sites, the environmentalist says.

Typically, technical grade DNT is considered to be a mixture composed of approximately 76 percent 2,4-DNT, 19 percent 2,6-DNT and five percent of the four less common DNT isomers, including 2,3-DNT, 3,4-DNT, 3,5-DNT and 2,5-DNT, the activist notes. But while these proportions may be valid at the time the blend is manufactured, they do not always hold true after it is released into the environment, the activist says.

In the environment surrounding former military sites, the four less common DNT isomers are often found at significantly greater concentrations than 2,4-DNT and 2,6-DNT, the activist says. This may be due to 2,4-DNT and 2,6-DNT being more biodegradable than the four less common DNT isomers, the activist says.

Therefore, environmentalists are concerned that, if EPA assumes that technical grade DNT always includes proportionally greater amounts of 2,4-DNT and 2,6-DNT in the environment, the PPRTV will be skewed and erroneously downplay the risk of being exposed to the four less common DNT isomers, the activist says.

Environmentalists are also concerned about the timing of the PPRTV's release, the activist says. At the ASTSWMO meeting, Southerland said EPA plans to release the PPRTV in the fall of 2012. The activist says that if EPA releases the

toxicity value much later than this, it may be too late to have a positive impact at some sites, and particularly at the Badger site, where the activist says the Army is looking to shut down operations within a year.

As it is, the public comment period for the Badger cleanup will likely be closed by the time EPA releases the PPRTV, the activist says. “We needed this yesterday,” the activist says.

A WDNR source said state officials would have to see the EPA toxicity value in order to know how it might impact cleanups at sites such as Badger. — *Douglas P. Guarino*

Air Force, California Debate Over Toxicity Values Raises Broad Concerns

The Air Force and California remain at odds over how toxicity values and risk ranges should be used in cleanups, an issue that has arisen in other states and which has raised concerns from some state regulators that the military may try to “cherry pick” favorable toxicity values from one state and apply them elsewhere.

Although the Air Force and California have been able to avoid any delays in cleanups due to the disagreement so far, a final resolution to the debate is needed in order to avoid any potential future adverse effects to cleanups, an Air Force spokeswoman says in an email response to follow-up questions on the matter.

The two differ over the correct choice of toxicity values to use for both cancer and non-cancer levels for cleanup decisions and the appropriate cancer risk level or range to use as a basis for taking action at a cleanup site, Air Force senior environmental restoration attorney Marc Trost said Oct. 27 at the Association of State & Territorial Solid Waste Management Officials’ (ASTSWMO) annual meeting in Bethesda, MD.

The Air Force says it is being consistent with EPA headquarters guidance, using EPA’s hierarchy of toxicity values for Superfund risk assessments. “While there is a hierarchy, ultimately we select the toxicity values that constitute the best science,” the Air Force spokeswoman says. The Air Force says it does not deviate from the EPA guidance, which calls for using the best science in making risk determinations.

“We would prefer that California aptly characterizes their position, but in prior correspondence they have stated to the Air Force the most health protective value should be used,” without referencing best science, she says.

California officials say they and EPA have for years agreed that the most protective level should be used for cleanups regardless of whether it is an EPA- or state-derived number, and that the Air Force, as the responsible party at contaminated sites, lacks the authority to select toxicity criteria.

EPA guidance lays out a hierarchy of three “tiers” of toxicity values to use in risk assessments at Superfund sites. Tier 1, which represents EPA’s generally preferred source of human health toxicity values, consists of EPA Integrated Risk Information System (IRIS) values. These generally include reference doses, reference concentrations, cancer slope factors, and drinking water and inhalation risk values that have gone through peer review and EPA consensus review, the EPA guidance says.

The second tier of toxicity values the guidance calls for considering are EPA’s Provisional Peer Reviewed Toxicity Values (PPRTVs). These are developed by the agency on a chemical-specific basis at the request of its Superfund office.

Tier 3 values use methods similar to those used for deriving the first two tiers and must be peer reviewed. These include such sources as California EPA toxicity values, the guidance says. Consultation with the EPA Superfund program “is recommended regarding the use of the Tier 3 values for Superfund response decisions when the contaminant appears to be a risk driver for the site,” EPA’s guidance says. The guidance in general recognizes toxicological information outside of IRIS, saying it should be considered along with IRIS data, and “ultimately, the Agency should evaluate risk based upon its best scientific judgment and consider all credible and relevant information available to it.”

California’s Department of Toxic Substances Control (DTSC) and EPA agree with the Air Force on the use of the tiered system EPA has set forth and they agree that the tiers “are not totally rigid,” says a DTSC paper. But where they differ is in the Air Force’s position that the service, as the responsible party, has the authority to select the toxicity criteria and “that whenever there is an IRIS value for a contaminant, the IRIS value should be used,” the paper says.

The state’s position is to use the most health protective level, according to a state source. “For years on an informal basis, US EPA and Cal EPA toxicologists have agreed to use the more protective of Cal EPA and IRIS criteria for risk assessment at California waste sites (both private sector and federal sites),” the DTSC paper says.

“The Air Force, who is not recognized as a credible source of toxicity criteria and is in the position of responsible party, is proposing to remove this flexibility of using the best toxicity criteria available at the time of the risk assessment, by imposing its interpretation of the EPA Guidance under its presidential lead agency implementation authority,” the paper says. Such an approach conflicts with the terms of interagency cleanup agreements governing federal facility Superfund sites and “ignores EPA’s role as the oversight agency” for Air Force Superfund site cleanups, it says.

“We have been going back and forth on this for quite a while at our sites in California,” Isabella Alasti, senior staff counsel with DTSC, said at the ASTSWMO meeting. She said “it’s the overarching concepts that we don’t agree with.”

She noted that EPA Region IX agrees with the state's position.

Specifically, she said the state does not see the tier system as rigid where just Tier 1 or Tier 2 is considered. Instead, the state looks at the different tiers and toxicity criteria, and "if we have a scientifically valid and current, more stringent value, that's what should be used" in risk assessments and cleanup level selections.

On the risk range issue, the Air Force says it relies on EPA headquarters guidance. The service's view is that, in general, if the site's cumulative cancer risk does not exceed 1×10^{-4} — the bottom of EPA's acceptable risk range of 1×10^{-4} to 1×10^{-6} — then action is generally not required, the Air Force says. The Air Force's position that no further action is required includes no consideration of institutional controls, DTSC says in its paper.

In contrast, the state is taking the view that if the cumulative cancer risk exceeds 1×10^{-6} , then the site must go forward into a feasibility study and be assessed for possible remedial action, the Air Force spokeswoman says.

"In no way would 10^{-4} or less be a cutoff where no further action is needed," Alasti said during the meeting.

Further, a regulator from Virginia during the ASTSWMO session questioned the Air Force on using toxicity values from one state to another. "My concern is that it opens up a lot of screening values for cherry picking to a certain extent," Kyle Newman, with the Virginia Department of Environmental Quality, said. He noted that the situation could get chaotic if a military service undertakes such an endeavor.

Trost contended the service is following EPA headquarters waste office guidance, and believes that the EPA region is out of step with that same guidance.

Meanwhile, the Defense Department has stayed above the fray so far. DOD Environmental Management Director Maureen Sullivan told the ASTSWMO meeting that the Defense Department believes this is a site-specific issue, "not a systemic problem" that needs to be resolved.

DOD Eyeing Future Legislative Fix To Pay For National Guard Cleanup Sites

The Pentagon is preparing a legislative proposal for the fiscal year 2014 budget that would reverse a ban on using defense cleanup funds to pay for remediation at contaminated Army National Guard sites where the property was never owned by the Defense Department (DOD), a DOD official told state regulators late last month.

Given the budgetary constraints, the official said it will nonetheless be a challenge to get the measure passed and told the regulators DOD will need help in making the case for the change in law.

At issue is the cleanup of what are known as Non-Department of Defense Owned, Non-Operational, Defense Sites (NDNODS) — federal, state, tribal and privately-owned lands where Army National Guardsmen trained but where the property was never owned by DOD. While DOD has been able to fund the preliminary site assessment work at these sites through its Defense Environmental Restoration Account (DERA), "the [DOD] lawyers have said you can't do any more work at these sites under the DERA account," Maureen Sullivan, DOD director of environmental management, told the Association of State & Territorial Solid Waste Management Officials at its annual meeting Oct. 26 in Bethesda, MD. Current law governing DERA prohibits the military from using its DERA funds to clean up these types of sites, she said in a follow-up interview.

DOD has "used" the NDNOD sites in training the Army National Guard — allowing the sites to fall within the definition of "defense sites" for meeting prioritization requirements under the FY02 Defense Authorization Act, which required DOD to establish a prioritization protocol for response actions at munitions cleanup sites, a DOD spokeswoman says in an email response. "As such we could use DERA funds to do the Preliminary Assessment/Site Inspection (PA/SI) so that we had the information to do the prioritization," she says. But since the NDNOD sites were not owned, leased or possessed by DOD, "they do not fall within the parameters of the [Defense Environmental Restoration Program] under 10 U.S.C. 2701 and therefore [are] not eligible for DERA funding," she says. In general, 10 U.S.C. 2701 relates to federal requirements governing DOD's DERP.

As a result, DOD plans to try to change the law through a legislative proposal it will attempt to include in the FY14 budget, Sullivan said, noting that DOD staff missed the window for including it in the FY13 budget proposal that will be released this February.

"I'll be honest with you, this is going to be a challenge, given today's fiscal environment. So we're going to have to make a case, and I hope that we'll all work together on this on why this is worth Department of Defense dollars being invested," she said. "We're relying on everybody to help us make that case but we're going to work hard to try and do it."

In response to FY02 defense authorization legislation, state Army National Guards compiled inventories of land and water areas where state Guards may have trained, controlled or used munitions in the past, as a way to determine potential munitions cleanup sites, according to 2009 reports from state Army National Guards.

State-Led Munitions Group Finalizing Papers Before Dissolving Next Year

A state-led group focused on munitions cleanup policy issues is wrapping up three key work products — addressing underwater munitions, interim risk and emergency responses at munitions sites — before it dissolves next year due to expired funding, a state regulator said at a recent state waste managers' forum.

Meanwhile, a defense official says the Defense Department (DOD) would like to continue a dialogue on the issues, cautioning however that any future forum it backs has to have a clear agenda of work products.

The Munitions Response Forum (MRF), comprised of state regulators, EPA, DOD and two federal land management agencies, is trying to finalize its paper on interim risk management fairly soon, after releasing the draft final paper on Oct. 21 for comment by states, said MRF chairman Clarence Smith, who is with Illinois Environmental Protection Agency, at the Association of State & Territorial Solid Waste Management Officials' (ASTSWMO) annual meeting Oct. 27 in Bethesda, MD.

The interim risk management paper reflects states' concerns about munitions sites that are no longer controlled by DOD and which may pose risks to the public, according to an earlier draft of the risk paper. The draft argues for "a proactive and DoD funded approach to interim-risk management." The focus of the paper is on sites that are accessible to the public but do not have adequate remedy or institutional controls in place and therefore need greater interim management, the draft paper says. It recommends that DOD, "working with States, design, fund and support implementation of a risk management framework that includes processes and/or procedures to safely manage munitions sites until adequate investigation and remedy can be completed."

Over time, these munitions sites may have been put to a use — such as a housing development or school outdoor recreational area — that is incompatible with the presence of munitions, the paper explains. It lists out six main elements to interim risk management: explosives or munitions emergency support, notification of/coordination with landowners and public officials, community outreach on explosive safety, construction support, wildfire and controlled burns support and immediate action.

In addition, the MRF is trying to finish up a paper on munitions emergency response, according to Smith. It also expects to complete a compendium on underwater munitions — a starting point for any future group to address on this issue, rather than a final paper, Smith told *Inside EPA*.

The two papers the MRF does expect to finalize before the group sunsets could also possibly be turned into an Environmental Council of States' "green" report — white papers the organization issues addressing specific regulatory topics, according to Smith.

Funding for the MRF has been extended until September 2012, but that funding is limited, with the group likely to hold just one more meeting, scheduled for February, he said. While the MRF has continued, ASTSWMO pulled out its participation in the forum earlier this year after EPA was unable to fully fund the grant paying for the group's involvement (*Superfund Report*, Feb. 21). Individual state representatives continued to participate under a separate grant.

DOD Director of Environmental Management Maureen Sullivan told the ASTSWMO forum Oct. 26 that while the group's grant is sunseting, there is still a strong interest in considering some sort of future forum on munitions cleanup policy. Sullivan said she is exploring ways to do that, but said if a forum continues, it must have a delineated agenda of work to be addressed. "It can't be just meeting for meeting's sake, or I'll not be able to defend supporting it," she said.

During the ASTSWMO discussion, one state representative requested that states be given a greater opportunity for involvement in any future forum. Smith responded that the group has tried to be as inclusive as it could. The group includes four state representatives, which can be changed periodically. These currently are from Alaska, California, Illinois and Maine, according to ASTSWMO's website.

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Kansas Backs Activist Call For EPA To Repeal Waiver For Oil, Gas Waste

Kansas — an oil-and gas-producing state — is siding with environmentalists in urging EPA to scrap a longtime exemption for exploration and production (E&P) wastes from strict Resource Conservation & Recovery Act (RCRA) hazardous waste rules, fearing adverse environmental and agricultural impacts from land disposal of the waste.

“It’s so rare that I’ll ask EPA to come up with something beyond general guidelines, but whatever laws allow this to be exempted needs to be re-looked at because states like ours are going to be unable to proceed with the exemptions in place,” Bill Bider, director of the Kansas Department of Health and Environment’s (KDHE) Bureau of Waste Management, said during an Oct. 27 meeting of state waste regulators in Bethesda, MD. Bider said the exemption could limit burgeoning natural gas operations because state permit writers do not know how to handle E&P wastes from the operations.

The comments appear in line with the Natural Resources Defense Council’s (NRDC) petition late last year asking the agency to reconsider and scrap its exemption, and impose hazardous waste rules for E&P waste.

Kansas’ dilemma highlights a growing patchwork of discrepancies in how various oil and gas producing states across the country are electing to deal with waste management issues absent blanket EPA rules.

That Kansas — a member of the influential Interstate Oil & Gas Compact Commission — is asking EPA to revisit the exemption could also be significant because the 1988 exclusion is partly based on the agency’s finding that states were doing an adequate job of regulating the industry.

Kansas is a major oil and gas producing state, but it is struggling with how to adequately dispose of drill cuttings from oil and natural gas operations, often stored on sites in inadequately lined or unlined pits.

Industry is lobbying Gov. Sam Brownback (R-KS) to allow drillers to land-apply the cuttings on agricultural land. The cuttings are currently regulated by EPA as RCRA subtitle D solid waste rather than being subject to more stringent RCRA subtitle C hazardous waste rules. Land application of drill cuttings would be advantageous to the oil industry because drilling companies often do not own surface rights to the land where their oil and gas drilling operations occur, limiting on-site storage and making transportation to dispose elsewhere extremely costly.

“Drillers are now lobbying the governor to be able to land spread like Oklahoma,” Bider said during a “Solid Waste Roundtable” during the annual Association of State & Territorial Solid Waste Management Officials (ASTSWMO) here. “That’s what the pressure is with states where drilling is just taking off,” he said.

Bider said that the drill cuttings — a viscous mixture of wastes removed from the borehole post-drilling — are extremely high in chloride levels, posing a “big environmental threat to any unlined area.”

EPA in 1988 issued a finding that E&P waste from oil and gas facilities should not be subject to RCRA hazardous waste rules. Bider’s comments show that Kansas environmental officials are pushing for a reevaluation of that finding because it could set strict disposal requirements protecting against harm from disposal of the waste.

“We’d love to figure out what we should be doing in this area,” Betsy Devlin, associate director of the materials recovery and waste management division within EPA’s RCRA office, said to Bider at the meeting.

Industry sources have suggested that if the natural gas industry does not act swiftly to improve transparency in areas like disclosure of drilling fluids and other best practices, public concern over adverse impacts from oil and gas operations could ultimately drive EPA to re-consider within the next several years whether the exemption is appropriate. “We could end up re-visiting that [1988] exemption,” one industry source previously told *Inside EPA*.

NRDC in its Sept. 8, 2010, petition asked EPA to repeal the 1988 finding that E&P wastes, namely those “intrinsically derived from primary field operations associated with the exploration, development or production of crude oil or natural gas,” should be exempt from RCRA subtitle C hazardous waste rules.

EPA has yet to formally respond to the group’s petition, but an agency source says the issue is “still an ongoing discussion.” That source notes that the NRDC petition has helped facilitate a major discussion about the federal government’s role in natural gas operations, a purview which has historically been the state’s domain, though the environmentalist group originally intended the petition to target the BP spill in the Gulf of Mexico.

Another important issue that the agency is struggling to address is whether it needs congressional approval to revisit the exemption or can instead scrap the exemption through a RCRA rulemaking, since the exemption stems from an amendment offered to RCRA by then-Sen. Lloyd Bentsen (D-TX), the source says.

Kansas’ push for EPA to review the exemption also highlights the differences in existing state controls on E&P wastes. NRDC says the patchwork of state rules is inadequate for controlling the waste.

In the petition, NRDC says that toxicity some waste from oil and gas operations, possibility of releases to air and groundwater, inadequacy of existing state regulations and feasibility and economic advantages of less harmful disposal techniques support their claim that subtitle C regulations are appropriate.

“EPA’s reconsideration of its 1988 regulatory determination is especially necessary now that the basis for its

regulatory determination no longer reflects current conditions,” NRDC says.

New Mexico Gov. Susana Martinez (R), for example, has vowed to roll back requirements implemented by former Democratic Gov. Bill Richardson’s administration establishing “pit rules” governing wastewater pits and impoundments that require strict permitting measures, “closed loop” systems, higher quality, heat-infused lining for all pits and enclosed tanks instead of on-site burial. Industry said the rules are too restrictive (*Superfund Report*, July 25).

“New Mexico’s [rules] are just one level below subtitle C,” pointed out one Colorado state solid waste manager during the ASTSWMO meeting. Colorado Oil & Gas Conservation Commission nonetheless tightened requirements for pits and impoundments, including ensuring that all pits are lined and double-lined in some cases, following a lengthy battle with industry, which says the rules are similar in stringency to New Mexico’s rules.

Separately, Pennsylvania and New York are both considering stricter regulations for management of solid wastes, including requiring higher quality lining for impoundments and closed pits in some cases, which Bider said during the ASTWMO meeting only serves to highlight the differences in what states are doing.

“[Kansas companies] would faint if they knew what Pennsylvania and New York were allowing — lined facilities? They’re disposing of it in pits now — we could never adopt something like Pennsylvania,” he said.

New York State Department of Environmental Conservation is still involved in “internal discussions” over revisions to its solid waste management rules, which environmentalists have complained are insufficient for addressing the tremendous increase in Marcellus Shale drilling. “They’re a monster,” one New York state regulator said of the complex solid waste rules, indicating it might be some time before any revisions were actually proposed.

The agency is also weighing how to best address the issue given that geology and terrain are vastly different in oil and gas producing states across the country, making universal waste management rules difficult because disposal options may be more limited in some states than other and composition of wastes tends to vary because of geologic differences in underground constituents dredged up during drilling. “It’s very different in the east and west . . . we’re still in the learning phase of what to do,” the agency source says. — *Bridget DiCosmo*

DOE Panel Urges Agencies To Speed Oversight Of Fracking Risks

The Energy Department’s panel developing recommendations for limiting risks of hydraulic fracturing is urging EPA and other agencies to take swift action to implement its recommendations aimed at improving understanding of the risks associated with shale gas development, warning that such an approach is necessary to gain public confidence in energy production.

In a new report released Nov. 10, the Secretary of Energy Advisory Board (SEAB) panel says progress that federal agencies have made in adopting the advice outlined in its earlier report — which called for improved environmental monitoring of the industry and requiring disclosure of chemicals used in the fracking process — is “less than the Subcommittee had hoped.” *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2381817)*

“The Subcommittee cautions that whether its approach is followed or not, some concerted and sustained action is needed to avoid excessive environmental impacts of shale gas production and the consequent risk of public opposition to its continuation and expansion,” a press release issued alongside the draft report says.

The call for stepped-up regulation will almost certainly inflame the natural gas and other industries seeking to limit regulation of the booming sector.

The SEAB panel will discuss potential revisions to the draft report, which it released Nov. 10, during a Nov. 14 teleconference.

Agencies Carve Out ‘Lanes’ For Avoiding Duplication In Fracking Oversight

Obama administration officials are highlighting a new strategy for ensuring that research and oversight of hydraulic fracturing operations are not duplicative, optimize collaboration and capitalize on core capabilities of EPA, the Department of Energy (DOE) and the Interior Department (DOI), carving out a “lane” of scrutiny for each agency to pursue.

Christopher Smith, deputy assistant secretary for oil and natural gas in DOE’s Office of Fossil Energy, told the Secretary of Energy Advisory Board (SEAB) shale gas panel Oct. 31 that identifying the “core research competencies” of each agency and potential areas where overlap might be necessary are critical to maintaining a good working relationship with industry and state agencies concerned about the possibility of a stronger federal role in the natural gas extraction.

While he said the agencies are generally seeking to prevent duplication, he said they have also identified areas where overlap may be desirable, such as baseline monitoring or seismicity associated with underground injection of wastewater, because they might present issues of common concern.

“Now we can say ‘here are the critical areas for federal government and here are the lanes’” for each agency to

move forward, Smith told the panel.

The SEAB panel met with Smith, EPA Deputy Administrator Robert Perciasepe and several DOI officials Oct. 31 to discuss which of the 20 recommendations in its Aug. 18 report on improving the safety and mitigating risks associated with shale gas development are most ripe for implementation and which have already been adopted.

The panel is slated to issue a second report, focused on implementing the recommendations, by Nov. 18.

The recommendations largely focus on improving measurement of environmental releases and increasing public disclosure of monitoring data to better ensure confidence that shale gas resources are being developed in a safe and environmentally responsible manner.

Smith floated a list of the areas of shale gas research each agency should be focusing on, outlining EPA's purview as air monitoring, environmental risk and water quality concerns. DOI's U.S. Geological Survey should concentrate on resource assessment, natural systems and geology and wildlife and ecological impacts, Smith said.

But Smith and other officials also floated several examples where the agencies are already working to complement existing efforts and prevent duplication.

For example, whereas the majority of EPA rules are driven by research that focuses on the best available technology because the agency is constrained by what is mandated by the environmental statutes under which it operates, DOE has more leeway to develop new technology.

DOE recently asked EPA for input on potential research projects that could be helpful in identifying treatment technology EPA could use in its Clean Water Act pre-treatment standards it is developing for discharges from shale gas operations, Smith told the panel.

"Where EPA is bound by what is the 'best available,' DOE is not," EPA Deputy Administrator Robert Perciasepe said during the meeting. "We're very keen on where we are complementary."

EPA identified several areas of interest that DOE could pursue as pilot studies, including developing technology that could be effective in removing naturally occurring radioactive material from shale gas wastewater, Smith said.

And Perciasepe suggested potential collaboration with DOI in EPA's effort to respond to an environmentalist petition asking for strict testing and reporting requirements on chemicals used in drilling under the Toxic Substances Control Act (TSCA). DOI's Bureau of Land Management is developing a draft proposal aimed at requiring industry to fully disclose chemicals used in their fracturing fluid before approving a public land lease for drilling purposes, Interior Deputy Secretary David Hayes said during the SEAB meeting.

Perciasepe said EPA's response will involve "looking at what's already going on at DOI and what the states are doing."

The petition, signed by Earthjustice, Environmental Defense Fund (EDF) and a slew of other activist groups, urges EPA to adopt TSCA section 4 test rules that would require manufacturers of exploration and production chemicals to conduct toxicity tests and a section 8 "data call-in" rule that would seek to collect data on adverse health effects.

The SEAB panel's chair, John Deutch, said recently that EPA was considering moving forward with TSCA rules but was grappling with how to overcome the law's confidential business information provisions, which may prevent disclosure of data that sources say are essential for winning public confidence that the extraction process is safe.

Perciasepe acknowledged that "it's a complicated issue regardless of how we respond to it," but added that "I suspect there's some things we can do that will be compatible with what everyone else is doing."

Meanwhile, Perciasepe was forced to defend the agency's proposed emissions standards for the oil and gas sector from tough criticism from SEAB member and EDF president Fred Krupp, who charged that the proposed new source performance standards (NSPS) "ignore" emissions contribution from existing wells.

"Ignore is a pretty strong word, Fred," Perciasepe said in response to Krupp's comments. "We're not ignoring it."

Perciasepe said that EPA is still trying to get a better handle on the emissions inventory from oil and natural gas production for emissions from volatile organic compounds (VOCs), the focus of the draft rule, and from the greenhouse gas (GHG) methane. "What we're still developing is how the NSPS would apply to existing sources," Perciasepe said.

Environmentalists have criticized the draft NSPS, which EPA released July 28, because it does not target methane emissions, but the agency says that the emissions standards for VOCs would have co-benefits of also reducing methane emissions. "Has EPA done any analysis about how many tons of methane we'll lose because of EPA's decision to ignore existing wells?" Krupp asked during the SEAB meeting.

Krupp also asked whether EPA has gathered any data on the extent to which its planned threshold level of VOC capture would actually result in methane reductions.

A key recommendation from the SEAB's Aug. 18 report involved improved monitoring of air emissions from natural gas well sites, and better disclosure of that data to the public. — *Bridget DiCosmo*

Activists Cite Draft Arsenic Assessment In Bid For Strict Coal Ash Rules

Environmentalists are redoubling their efforts to pressure EPA to strictly regulate coal ash, citing EPA's 2010 draft risk assessment suggesting arsenic — a toxic contaminant found in coal ash — may be 17 times more carcinogenic than previously thought.

Representatives from the environmental group Earthjustice, along with community representatives from 10 states affected by coal ash, met with EPA waste chief Mathy Stanislaus on Nov. 4 to discuss the environmental impacts of coal ash and the agency's pending rulemaking relative to the substance.

During the meeting, Michael Kosnett, a medical toxicologist who has served on National Research Council and EPA Science Advisory Board (SAB) panels on arsenic, gave a presentation in which he contended that EPA's draft risk assessment on arsenic is a reason why EPA should strictly regulate coal ash, according to an environmentalist familiar with the meeting. One of environmentalists' primary concerns over coal ash is that it can lead to arsenic contamination of drinking water, the activist says.

EPA's draft Integrated Risk Information System (IRIS) review for arsenic, which the agency released in 2010, includes an estimate of cancer potency some 17 times stricter than EPA's existing arsenic risk number. The environmentalist says this increased risk requires that coal ash be more tightly controlled.

But EPA's draft IRIS review for arsenic has been controversial. In June 2010, SAB delayed completion of its review and complained that its subgroup charged with conducting the review was not thorough enough. The subgroup's report was generally positive but focused its review too narrowly, SAB officials said.

Industry officials also criticized the IRIS review, saying it was too strict and filing a Data Quality Act (DQA) challenge claiming that deficiencies in the study undermine its objectivity and validity.

Regarding coal ash, EPA has been taking comment on a notice of data availability that provides data for its rulemaking. The agency last year floated two options — either regulate coal ash as a “hazardous waste” subject to strict rules under the Resource Conservation & Recovery Act (RCRA) or as a “solid waste” subject to less-stringent RCRA requirements.

Many states, industry and Republicans favor the less stringent solid waste option, fearing that regulating coal ash as hazardous waste would harm the beneficial ash reuse industry. Environmentalists prefer the hazardous waste option, arguing it is needed to adequately guard against dangerous human exposure.

Meanwhile, in Congress, the House recently passed a bipartisan bill, that would preempt EPA's pending rule and instead allow states to craft their own non-hazardous regulations for coal ash. Although the White House stopped short of threatening to veto the bill, its companion, S.1751 appears unlikely to make it through the Senate.

Wisconsin Coal Ash Spill Prompts New Activist Calls For EPA Regulation

A coal ash spill at a Wisconsin power plant, together with new EPA data showing increased vulnerability of ash impoundments, is prompting new calls from environmentalists for policymakers to drop legislative efforts to address coal ash and instead allow EPA to strictly regulate the large volumes of waste material generated by power plants.

“This spill in the Great Lakes is a tragic reminder of why the status quo is not good enough. As long as Congress interferes, spills like this are going to happen, and dozens of communities are at risk. Congress needs to back off and allow the EPA to finalize strong protections,” Sierra Club's Mary Anne Hitt said in a Nov. 1 statement.

Hitt and other environmentalists issued statements in response to a fill project that on Oct. 31 spilled into Lake Michigan from the We Energies Oak Creek Power Plant in Milwaukee County, WI. The company said in a statement that the spilled material was “likely” coal ash that had been used as fill material but that it is “not hazardous material” and “[it] is unlikely there will be any health impacts at all from this event.”

Other environmentalists are also highlighting new EPA research showing a three-fold increase in the number of ash disposal ponds that could pose hazards to surrounding areas. According to Earthjustice, EPA recently released a new set of data that reveals 181 “significant” hazard coal ash dams in 18 states. “This is more than three times the 60 significant-hazard ponds listed in the original database released in 2009,” the group said in an Oct. 31 statement.

The group also says eight coal ash ponds previously unrated have since been found to be high-hazard ponds in data released earlier this year, which puts the total number of high-hazard ponds at 47, the group says. The Oak Creek plant in Wisconsin is a fill project, so was not included in EPA's data on impoundments.

But despite signs of potential risks, federal officials appear a long way off from crafting new policies to address the ash. EPA is still taking comment on a notice of data availability it issued last summer to provide additional data for its controversial rulemaking to regulate the ash. The agency last year floated two options — either regulate it as a “hazardous waste” subject to strict rules under the Resource Conservation & Recovery Act (RCRA) or as a solid waste subject

to less-stringent RCRA requirements. Many states, industry and Republicans favor the less-stringent subtitle D rules, fearing that hazardous waste rules would harm the beneficial ash reuse industry and be costly to meet.

The agency received an estimated 450,000 comments on its proposal and its deadline to issue a final rule is still “to be determined,” according to the unified agenda.

Meanwhile in Congress, the House recently passed a bipartisan bill that would preempt EPA’s pending measure while allowing states to craft their own non-hazardous waste programs. Although the White House stopped short of threatening to veto the measure, it appears unlikely to make it through the Senate, where key Democrats and environmentalists strongly oppose it in its current form.

Among other things, the critics say the House bill lacks an overriding safety standard, though the bill, S. 1751, is co-sponsored by six Democrats.

But Earthjustice says the new EPA data should prompt the Senate to drop the bill. “The sharp increase in coal ash ponds likely to cause significant damage if they should fail should give the Senate pause as they consider S.1751, a bill that will allow coal ash ponds to operate indefinitely without adequate safeguards,” the group says in an Oct. 31 statement.

And in a Nov. 1 statement, Earthjustice attorney Lisa Evans called on the White House to veto the bill if it makes it out of the Senate in its current form. “While we wait for yet another clean-up, we’re battling Senate polluter benefactors who deny that coal ash is anything but mud. If this Senate legislation sees the light of day it must be stopped in its tracks by the White House. This event must be a wake-up call for our government to take action now,” Evans said Nov. 1.

Evans and Hitt both argued that it has been almost three years since a massive coal ash spill at a Tennessee Valley Authority power plant prompted EPA Administrator Lisa Jackson to launch the agency’s rulemaking effort. “We’re coming up on the three-year anniversary of the TVA coal ash disaster and it is disheartening that we still have no measures in place to protect the public against toxic ash,” Evans says.

Risk Assessment

Amid Concerns From DOD, EPA Slated To Release Perc Risk Assessment

EPA is poised to release its long-delayed Integrated Risk Information System (IRIS) assessment of the ubiquitous solvent perchloroethylene (perc), which is often used in dry-cleaning and metal degreasing, though the Defense Department (DOD) is concerned with how EPA conducted its assessment and is calling for heightened scrutiny.

Sources both at EPA and closely following the assessment are indicating the long delayed assessment will be released “soon,” possibly as early as mid-November.

But DOD is raising concerns that EPA is using a different method for assessing perc’s risks than it did for a related solvent, trichloroethylene (TCE) — even though the agency acknowledges the two compounds are similar.

A DOD spokeswoman says the inconsistencies in EPA’s approaches are undermining the department’s confidence in both assessments, prompting officials to call for heightened scrutiny. “DOD uses the information and conclusions to communicate risk to stakeholders, and we need to have confidence in the way those risks were calculated. In order to achieve that confidence, DOD is looking for a review of whether or not the risks should have been calculated differently, and if so, what the justification is.”

EPA began updating its 1988 assessment of perc, a common contaminant at hazardous waste sites, in 1998. The agency released a draft assessment in 2008 to undergo peer review by the National Academy of Sciences (NAS). The revised assessment had been delayed for two years because Bush EPA research chief George Gray wanted the agency to use it to implement for the first time his plans for broader consideration of scientific uncertainty in EPA risk assessments.

But agency staff refused to conduct the uncertainty analysis — or develop the less-conservative non-linear risk models — Gray sought, delaying the assessment. Once released, EPA’s draft assessment provided a first-time inhalation exposure standard — or reference concentration (RfC) — set at 0.016 milligrams per cubic meter (mg/m³), as well as first-time cancer risk standards.

The draft also proposed a more stringent oral exposure standard — or reference dose (RfD) — from the 1988 value of 0.01 milligrams per kilogram per day (mg/kg/day) to 0.004 mg/kg/day. The new — and stricter — safety standards would, if finalized, likely result in stricter cleanup and emissions levels for the solvent.

But the NAS in its 2010 report called on the agency to rewrite key portions of the assessment. The NAS panel strongly criticized the agency’s reliance on conservative, but scientifically uncertain, studies on the chemical’s cancer and non-cancer risks, findings that the panel said undermine the agency’s recommended safety levels.

While it is unclear what changes EPA will have made to the document since its 2008 draft, DOD is already indicat-

ing concern with how EPA conducted its quantitative cancer risk estimates. “DOD is very concerned about the apparent lack of consistency in the evaluation of TCE and PCE, the latter also under interagency review,” according to written comments DOD submitted to EPA July 15. EPA released the other agencies’ written comments Sept. 28, alongside the final TCE assessment.

“As the PCE document states, ‘[Perc] is closely related structurally to [TCE], and the two chemicals cause similar toxic effects, many of which are attributed to metabolic activation of the parent compounds.’ Given EPA’s stated objective of considering toxicities of closely related chemicals together, DOD finds the lack of consistency troubling.”

DOD called on EPA to “provide consistency in its evaluation of chemicals that are very similar in structure and toxicity, or explain why there are significant differences. Both the TCE and PCE documents cite result[s] for other chemicals, not just metabolites, so these inconsistencies need to be resolved.”

The DOD spokeswoman says that while EPA staff noted the chemicals’ similarities, they calculated the risks differently. In the case of both chemicals, studies of lab animals exposed to the chemicals developed tumors in different organs after exposure, resulting in different endpoints on which to base risk calculations for both chemicals.

But the spokeswoman says that DOD scientists noted differences in how EPA handled the different tumor types in development of the cancer slope factors and unit risks — estimates of cancer potency by oral and inhalation exposure.

“In the TCE assessment, the slope factors were assumed to be additive for the different tumor types and the unit risk was developed using an estimate for kidney cancer and then divided by 4 to account for the other two tumor types. In the PCE assessment, cancer toxicity values for multiple tumor types were not considered in such fashion.”

“DOD is very concerned about the apparent lack of consistency in the evaluation of TCE and PCE, the latter also under interagency review.” — DOD written comments to EPA

DOD did not explain how EPA assessed the cancer risks of perc. The NAS panel in its 2010 review criticized the endpoints EPA used for its quantitative cancer risks in its draft version of the perc IRIS assessment. The panel generally backed EPA’s finding that the chemical is a “likely” carcinogen but was divided on what cancers are most likely caused by exposure. The majority of the panel said EPA’s leukemia data — which EPA identified as the most likely harmful endpoint — was too uncertain to make the data useful for risk calculation.

“A more scientifically defensible approach would be to employ the dataset that has the least uncertainty rather than the cancer dataset that yields the highest estimates of adverse health effects,” NAS said in a 2010 press release describing the report. The report agreed with EPA’s conclusion that epidemiological data indicated an association between perc exposure and leukemia, but added that the data are “relatively weak and inconsistent.”

Instead, the panelists split over alternate endpoints that could be used instead to calculate perc’s cancer risk. The majority of panelists concluded “the hepatic cancer data would have the least uncertainty associated with it, followed by kidney cancer and MCL [mononuclear-cell leukemia],” according to the NAS report. “The comparison of risk estimates presented in the draft IRIS assessment indicates that a unit risk based on hepatic cancer would be approximately eight-fold less than the estimate based on MCL. A unit risk based on kidney cancer would be five-fold less.”

Other panelists, however, supported EPA’s use of the MCL data as the basis for its cancer risk calculations. “Their opinions were based on the observation that reproducible, statistically significant increases in MCL in male and female rats above the background incidence of MCL were found, and that MCL was the cancer end point with the highest magnitude of response. These members believe that use of the most sensitive response to quantify cancer risk decreases the uncertainty associated with potential differences in metabolism and susceptibility to [perc] across exposed populations.”

The panel’s report also raised concerns about EPA’s non-cancer risk calculations. As a result, it calculated an alternative inhalation safety level for non-cancer risks that is orders of magnitude weaker than EPA’s 2008 proposal. Such derivation of specific risk values was exactly what former IRIS chief Peter Preuss asked the panel not to do when he spoke at the panel’s first meeting. During his 2008 testimony, Preuss urged the panelists to stick to reviewing EPA’s assessment and not perform its own risk assessment, a situation that occurred when an Academy panel reviewed EPA’s draft IRIS assessment of perchlorate in 2005.

“Help us reach closure. This is a dataset that has been underway for a long time. A lot of people are exposed to this chemical. A lot of states and other groups are taking action,” Preuss said. “It’s very important we move forward so EPA can move forward.” — *Maria Hegstad*

In Wake Of TCE, Upcoming Risk Studies May Pose Tough New Test For EPA

EPA recently issued its long-awaited risk assessment of the solvent trichloroethylene (TCE) and analyses of several lesser known chemicals, but officials are still grappling with assessments for several high-profile chemicals that could pose major tests for its Integrated Risk Information System (IRIS) program, which is facing heavy criticism from industry and Republicans.

Among the more difficult assessments EPA is still struggling to complete are those for ubiquitous contaminants like arsenic, dioxin, hexavalent chromium (Cr6), platinum salts (Pt) and perchloroethylene (perc), which could be subject to stringent new regulations once the agency completes the assessments.

With the exception of TCE, “EPA is largely completing assessments that are less controversial,” says one industry source.

As fiscal year 2011 drew to a close, EPA released a handful of new IRIS documents, including a final assessment for TCE that classified the ubiquitous solvent as a known carcinogen. The agency also issued a final assessment for trichloroacetic acid (TCA), a metabolite of the solvent, as well as a final assessment of hexachloroethane (HCE), a chemical most commonly used by the military.

EPA staff also posted new draft assessments for the chemicals biphenyl and vanadium pentoxide, with EPA opening public comment periods and setting listening sessions on each.

EPA released the assessments despite concerns from industry and GOP lawmakers that the risk assessments are based on flawed science that could drive costly regulations. To address this, the program’s critics are urging the agency to reform the IRIS program — as at least one National Academy of Sciences (NAS) panel has recommended — and subject at least one of the major assessments to heightened scrutiny by the NAS (*Superfund Report*, Oct. 3).

While EPA has adopted some reforms, the agency is struggling to adopt others in part due to concerns that doing so may prompt further delays in a program long-criticized for its lengthy assessment process.

When the agency released the TCE assessment, research chief Paul Anastas highlighted the value of the IRIS program and the new regulations that will result. “This assessment is an important first step, providing valuable information to the state, local and federal agencies responsible for protecting the health of the American people,” he said in a statement. “It underscores the importance of EPA’s science and, in particular, the critical value of the IRIS database for ensuring that government officials and the American people have the information they need to protect their health and the health of their children.”

But sources say several pending assessments will be much more difficult for the agency to complete than TCE and some of the others.

“I can understand putting some of the minor [assessments] through — it’s a way of being able to show progress,” says a consultant. But the “big, problematic assessments [will] have to be thoroughly re-thought,” the consultant adds. The source suggests that EPA would be “better off if they could just get through those four or five big ones that have been thorns.”

EPA is already running behind its own stated schedule for completing assessments for Cr6, arsenic, dioxin, Pt and perc.

While one source says the perc assessment could be released “soon,” the Cr6 assessment had been expected for publication by Sept. 30, according to slides presented to agency advisers in late June. But it has yet to move to the final stages before publication — interagency review and final EPA review, according to the agency’s IRIS Track website. EPA now estimates the Cr6 assessment will be published in the second quarter of fiscal year 2012, sometime between January and March 2012.

The Cr6 assessment may be particularly contentious as environmentalists and industry representatives are already telling EPA that how the agency proceeds on Cr6 will be a test for the future of the IRIS program and reforms adopted by Administrator Lisa Jackson to address Government Accountability Office concerns that the program is too slow in completing assessments.

“It is not surprising that a now-functioning IRIS program has attracted significant criticism from chemical industries whose products are being scrutinized,” environmentalists told Jackson in an Oct. 3 letter urging her to quickly complete the Cr6 assessment using conservative linear modeling techniques.

But industry representatives are stepping up their calls for EPA to delay the Cr6 assessment until the chemical industry has completed a series of studies that the industry believes will undermine the need for EPA to use the conservative techniques.

The Small Business Administration’s Office of Advocacy (SBA) told EPA research chief Paul Anastas in an Oct. 5 letter that delaying the Cr6 assessment in order to consider the upcoming industry studies would demonstrate EPA’s commitment to put the IRIS program on a strong scientific footing.

“Any delay in the process that results from EPA waiting a few months longer on [Cr6] will no doubt be significantly outweighed by the benefits from a more robust data base to uphold informed regulatory decisions,” according to SBA’s

Oct. 5 letter. “Advocacy believes that by moving back the deadline for a final assessment of the scientific data, by assessing all available science, including the most recent studies, and by rewriting the Draft Toxicological Review, that EPA can demonstrate that sound science is indeed the backbone of the IRIS program.” *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2377807)*

Several of the other assessments, seemingly near completion, have also stalled. The final IRIS assessment of arsenic cancer risks, for example, had been scheduled to be published in August, while the assessment of perc was scheduled for release in July. Neither has appeared so far.

The assessments of Cr6, Pt and TCE were expected in September, but only TCE has been released as expected. All three of these assessments drew significant criticism from industry and/or federal agencies. The Defense Department, the White House Office of Management & Budget and NASA criticized the TCE assessment for its length, the methods by which it calculated non-cancer risk estimates and its characterization of TCE as carcinogenic to humans.

But it also won praise from at least one GOP lawmaker, Sen. Richard Burr (R-NC), who in a Sept. 30 statement praised EPA’s decision to issue the TCE assessment, saying it will help the estimated 750,000 military personnel and their families potentially exposed to the chemical in drinking water at Camp LeJeune, NC.

“[EPA’s cancer] designation . . . is of the utmost significance as it will further inform veterans and their family members, who may have contracted various forms of cancer as a result of exposure to this chemical, of the risk associated with it. I am hopeful additional awareness will spur them to get the medical assessment and treatment they need,” he said in a statement shortly after the TCE assessment was released.

The consultant suggested that agency staff may have felt that TCE could go forward because they received a largely positive peer review of the assessment and followed its recommendations. “I’m not sure how it will sit with people in its applications,” the source says. “It’s a little of a bold move, in light of the IRIS assessment questions out there.”

But despite the criticism, a federal source indicated relief that the TCE assessment, a decade in the making, was published. “We are glad it is finally out — it will bring a measure of certainty to TCE cleanups,” the source says. — *Maria Hegstad*

EPA Seeks ‘Evidence’ Guide For Chemical Risk Studies But Fears Delays

A top official with EPA’s chemical risk assessment program says the agency is considering how to adopt new recommendations made by the National Academy of Sciences (NAS) for how to weigh scientific evidence when assessing chemicals, though the official is concerned that crafting guidance could lead to further delays in a program long-criticized for its lengthy assessment process.

During an Oct. 26 meeting on the draft IRIS assessment of n-butanol, a chemical intermediary that is used to make other substances, Vincent Cogliano, interim director of EPA’s Integrated Risk Information System (IRIS) program, indicated that he and other officials are considering whether and how to implement use of a weight of evidence (WoE) scheme in future IRIS assessments.

Cogliano indicated his support for adoption of such a tool as a way to improve the IRIS process and respond to NAS recommendations that many of the program’s critics are urging the agency to adopt. But he voiced concern that crafting such a framework could lead to further delays in a program long-maligned for its delays in producing IRIS assessments.

Delays in crafting IRIS assessments has long been a concern. In 2008, the agency’s science counselors urged the program to increase its output. In 2009, the Government Accountability Office named the IRIS program to its list of high risk federal programs, largely due to what it considered the program’s risk for becoming obsolete due to the age of many of its assessments and the time taken to update them or add new chemicals to its public database. GAO is now working on an update to the earlier report, which should be released in the near future.

But while there is concern about the program’s pace, industry and many Republicans are also concerned about the quality of its risk assessments, fearing that the science is flawed and the assessments will drive costly new rules.

Earlier this year, an NAS panel that reviewed EPA’s draft IRIS assessment of formaldehyde included a chapter of improvements for the IRIS program as a whole. Among these is a recommendation that EPA better weigh and describe the data it has used to form its assessments, and also improve its literature searches.

Many industry critics of the program have been urging EPA to adopt such recommendations. House appropriators even included language in EPA’s fiscal year 2012 spending bill requiring EPA to submit at least one new draft assessment to NAS for review to ensure the agency is following NAS’ formaldehyde report recommendations.

And during the Oct. 26 meeting, Rick Becker of the American Chemistry Council, a chemical industry organization, urged EPA to adopt a WoE framework when drafting its IRIS assessments. “The [NAS] recommendations talk about evidence evaluation . . . clearly, WoE is needed to improve IRIS,” Becker said.

Cogliano appeared to agree with the comment, saying, “I would like to be able to adopt a framework, perhaps one

used by other health agencies . . .”

But Cogliano also expressed concern about the length of time it would take to adopt such a process, and delays it might cause to producing assessments. Shortly after his arrival as the new interim IRIS director, Cogliano described his disinterest in lengthy efforts to draft new guidelines for the program. In the interview, he said, “We can’t afford to spend all our time revising guidelines.” And he noted that the agency’s efforts to update its cancer risk assessment guidelines — published in 2005 — started in 1988.

“If we were to pick up some kind of [WoE] framework, clearly called for by the NAS [formaldehyde report but] . . . I’m a little leery of a multi-year [process],” Cogliano said. “Would ACC be okay for doing this without a multi-year guideline development?”

Becker replied, “I don’t want to say yes or no. Guidelines are important. I think it depends on what that process is.” But he added, “I think there are a few published [frameworks] you could [adopt easily].” — *Maria Hegstad*

Litigation

Judges Skeptical Of Industry Suit Over EPA Scrapping Lead Rule ‘Opt-Out’

Federal appellate court judges appeared skeptical at oral arguments over industry’s claim that the Obama EPA lacked authority to reverse a Bush-era policy allowing home renovators to “opt-out” of complying with EPA’s rule to reduce lead paint exposure without providing new information to justify the change, with the judges suggesting that the agency has the discretion to protect human health however it sees fit so long as it does not violate federal law.

The National Association of Home Builders (NAHB) sued EPA in the U.S. Court of Appeals for the District of Columbia Circuit to challenge the Obama administration’s decision to end opt-outs from the lead renovation, repair and painting rule that sets safe work practices for home renovations to minimize childrens’ exposure to lead.

The Bush-era version of the rule issued in 2008 allowed opt-outs from the potentially costly requirements for renovators if they could show no young children or pregnant women were present in a home.

But public health advocates sued over the opt-out and the Obama EPA scrapped the provision in 2010, citing concerns it could lead to children or pregnant women being exposed to lead dust after moving into homes that were renovated under the exemption.

A panel of three DC Circuit judges expressed doubts over industry’s claims in the opt-out suit, *NAHB, et al. v. EPA*, during oral arguments Nov. 1, saying new administrations can change existing agency rules.

Industry lawyer Thomas Jackson argued that the Obama EPA’s action was improper because it “fundamentally reversed [the agency’s] position” on whether the opt-out provision was prudent without providing any new information that was not already available at the time the Bush administration issued the original rule.

Jackson suggested that the Administrative Procedure Act sets a higher standard for what justifies a rule change. Jackson argued that EPA failed to provide any new data to justify ending the opt-out, and reassessing existing data does not meet that standard. But the appellate judges quickly scrutinized this argument.

“Now you’re really in trouble,” Judge Merrick Garland told Jackson. Garland said that under the Supreme Court’s 2009 ruling in *FCC v. Fox Television Stations*, there is “no higher standard,” and that a new administration can change federal rules however it wants so long as the contents of the new rule are permitted by federal law. Prior to the high court’s ruling Jackson may have had a legitimate argument, but afterward it is less likely, Garland said.

Jackson argued that the Supreme Court in its *Fox* ruling left the door open to exceptions to this rule, and that EPA’s reversal was not proper because the agency had previously determined that the original rule was “safe, effective and reliable” and in compliance with federal law.

But Garland said the Obama EPA has not argued that the original rule was not in compliance with federal law, only that the new version was “safer, more effective,” and “more reliable.”

EPA said only that the “new rule is also consistent” with federal law and that it “wants to protect people that would not have been protected” by the original rule. “That’s all that is necessary,” Garland said.

Similarly, Senior Judge Stephen Williams noted that EPA said that while the 2008 rule “is good, this rule is better.”

Even if the Obama EPA had argued that the Bush-era rule was illegal, Judge Garland said that it “doesn’t matter if the previous rule could have survived the sort of deferential review we give” federal rules, and that new administrations have the right to review prior rules so long as they do so within the confines of the law.

“*Fox* says you do not have to prove the reason for the new policy is better — it’s sufficient that the new policy is permissible,” Garland said.

Jackson faced tough questions regarding several of his arguments against ending the opt-out. The judges asked relatively few questions of Stephanie Talbert, a Department of Justice attorney who argued the case for EPA, and spent

most of their time scrutinizing Jackson's case.

For example, Jackson argued that EPA in the original rule determined that children and pregnant women moving into homes that had been previously renovated under the opt-out exemption would be protected due to a requirement that home sellers and landlords disclose such information on request.

But Judge Garland challenged this argument, asking if it is "unreasonable" for the Obama EPA to determine that some people would be more likely to seek out such information than others and that it wants to protect those who may not seek such information.

Garland, along with Judge Judith Rogers, also attacked an argument Jackson made regarding the cost-benefit analysis EPA conducted to support its rulemaking. Jackson suggested that EPA improperly counted the work of renovators who were already complying with the rule prior to its promulgation as a benefit of the rule in the analysis, but the judges said this was not so, and that EPA had used the "same basic economic analysis" for both the 2008 and 2010 rules.

"I stand corrected," Jackson said in response to the judges.

Jackson had also argued that EPA's refusal to convene a Small Business Advocacy Review panel to review to discuss the 2010 rule — as the agency had with the 2008 rule — violated the Regulatory Flexibility Act. But Judges Rogers and Williams also questioned this argument.

"What information would the panel have brought that have not been brought through" the written comments EPA received on the 2010 rule?" Rogers asked.

Jackson said the panel might not have made any arguments that were not already included in the written comments, but that EPA may have been more focused on those issues had it convened such a panel. -- *Douglas P. Guarino*

Brownfields

EPA Urges Brownfields Grant Applicants To 'Leverage' Outside Funding

EPA is changing its criteria for awarding brownfields assessment grant money, boosting the amount of weight it gives to applicants who can leverage funding from outside sources and thus increase the likelihood that their cleanup and redevelopment projects have a realistic chance of moving forward, EPA officials say.

EPA will now double the number of points it normally gives to brownfields grant applicants for leveraging outside funds for their projects under EPA's system of scoring applications to decide which communities will be awarded grants. In past years, EPA has given applicants who can leverage brownfields grant money with outside funds five points in its scoring system, but EPA's proposal guidelines for brownfields assessment grants for fiscal year 2012 say the category will now carry a weight of 10 points.

Communities are awarded EPA brownfields assessment grants in order "to inventory, characterize, assess, and conduct planning and community involvement related to brownfields sites," EPA's website says. Recipients can receive up to \$200,000 for the assessments, and in some cases as much as \$350,000 due to the amount of contamination at the site, EPA says.

"Under this criterion, applicants who can demonstrate firm commitments for additional funds/resources for completion of the project may be evaluated more favorably," the guidelines say. "Demonstrate how you will leverage additional funds/resources beyond the grant funds awarded to support the proposed project activities.

"Specifically, describe how these funds will be used to contribute to the performance and success of the proposed project," the guidelines say. "This includes, but is not limited to, funds and other resources leveraged from businesses, non-profit organizations, education and training providers, and/or Federal, state, tribal and local governments." *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2382014)*

During the Association of State & Territorial Solid Waste Management Officials' (ASTSWMO) Oct. 26 annual meeting in Bethesda, MD, EPA brownfields director David Lloyd said EPA made the change in order to promote brownfields projects that have a likelihood to move beyond the assessment phase and into the cleanup and redevelopment phase.

The change is one of a series of efforts EPA is undertaking as part of an effort to promote brownfields cleanup and redevelopment. For example, during the ASTSWMO meeting, Lloyd also announced an EPA effort to quantify how brownfields cleanup and redevelopment can boost property values.

Lloyd said one preliminary analysis suggested the values may be increased by as much as 15 to 25 percent, a finding the agency hopes will provide communities with an added incentive to address the problem of abandoned commercial sites. He told *Inside EPA* that the agency was conducting the analysis with the hope that it would illustrate the value of undertaking brownfields projects to communities which may otherwise be reluctant to do so (*Superfund Report*, Oct. 31).

EPA Launches Evaluations of Renewable Energy Projects At Brownfields

EPA and the Energy Department (DOE) have begun evaluating the feasibility of siting renewable energy projects on 26 Superfund, brownfields and former landfill or contaminated mining sites, as part of EPA's push to encourage such development on such sites.

EPA is investing \$1 million in the analysis, which will consider technical and economic opportunities and challenges at each site. Earlier this year, the agency asked states and local governments to submit renewable energy development proposals for cleanup sites in their regions, with EPA's top choices being evaluated by DOE's National Renewable Energy Laboratory (NREL).

While industry and local government sources have raised concerns in the past over liability issues connected with placing renewable energy projects on contaminated sites, sources following EPA's RE-Powering America's Land Initiative now say the biggest hurdle is obtaining financing.

State incentives such as tax breaks for development projects can "make or break" these deals, says one brownfields expert. "The biggest problem still is making the finances work," says another long-time environmental activist in an email response to questions.

"These studies are the first step to transforming these sites from eyesores today to community assets tomorrow." — EPA waste chief Mathy Stanislaus

The NREL studies will include conducting a preliminary analysis of the economic and physical viability of each site; reviewing economics, payback periods and capital costs; assessing the availability of renewable resources; identifying the size, design and location of a potential project; highlighting financing options such as available incentives; estimating job growth from the project; and estimating greenhouse gas emissions reductions from the project, EPA says in the application form for the feasibility studies. Among the sites being analyzed are former manufacturing sites, military bases, railyards, landfills, and mining sites across 20 states, EPA said in a Nov. 4 announcement.

The types of renewable energy being analyzed are wind, solar, biomass and geothermal, EPA says. Wind feasibility studies may take as long as two years or more, if wind data is studied, while the studies for the other types of energy production are expected to take one year, EPA says in response to questions from *Inside EPA*.

EPA says it is looking at a variety of potentially contaminated land as renewable energy production sites for a number of reasons: it can preserve greenfields; create jobs; offer existing infrastructure and lower land costs; and allow contaminated properties to be put to productive use.

The initiative "is not just about using these sites for energy production but using these sites to re-energize communities," EPA waste chief Mathy Stanislaus said in the Nov. 4 announcement. "These studies are the first step to transforming these sites from eyesores today to community assets tomorrow."

As to concerns about potential cleanup liability being transferred to developers, the brownfields expert says that liability risk can be managed, for instance through insurance products developers purchase. EPA, in its response, says developers have expressed concern about liability risks, but the agency found that many of these developers and investors are "often not aware of the statutory liability protections, enforcement discretion guidances, and site-specific tools available to protect them from potential [Superfund] liability."

EPA issued a fact sheet in March, seeking to "clarify potential liability issues" and provide answers to common questions that developers of such projects may have about liability. EPA notes in the fact sheet that the vast majority of properties requiring cleanup are most likely to be addressed by state cleanup programs, which may provide liability protections for new owners or lessees who were not responsible for the past contamination. The fact sheet also outlines the liability protections available for purchasers of contaminated property under the Comprehensive Environmental Response, Compensation & Liability Act and the Resource Conservation & Recovery Act, as well as liability protections for lessees of contaminated property (*Superfund Report*, April 18).

Developers are not afraid of risk, but are "afraid of unquantified risk," the brownfields expert notes.

EPA and NREL launched the RE-Powering America's Land: Siting Renewable Energy on Potentially Contaminated Land and Mine Sites Initiative in September 2008 "to encourage siting renewable energy on potentially contaminated sites," according to EPA.

EPA estimates there are more than 11,000 "EPA tracked sites" for developing solar, wind, biomass, and geothermal facilities, representing 15 million acres of untapped land resources.

EPA Defends Equity Screening Plan After GAO Call For Clearer Strategy

EPA is strongly defending its work to elevate the role of environmental justice considerations in agency decisions and the use of a screening program to identify equity communities, following a Government Accountability Office (GAO) report that lauds EPA's equity efforts but calls for a clearer, more structured strategy.

Rep. Donna Edwards (D-MD), who requested the GAO report released Nov. 7, issued a statement praising the agency's progress while encouraging EPA to implement the recommendations. Edwards said the screening tool, known as EJ SCREEN, is not a substitute for a more comprehensive agency-wide equity plan.

The GAO report, "Environmental Justice: EPA Needs to Take Additional Actions to Help Ensure Effective Implementation," generally praises efforts by Administrator Lisa Jackson to renew the agency's commitment to environmental justice (EJ) after a decade of limbo, including developing "Plan EJ 2014" — a four-year plan finalized this fall to help the agency develop stronger relationships with communities, and boost efforts to improve the environment and public health in overburdened areas — and its related implementation plans.

However, GAO faults EPA for not establishing "a clear strategy for how it will define key environmental justice terms," particularly by limiting itself to the EJ SCREEN computer program it plans to use to define a nationally consistent strategy. EPA uses the program to identify areas with potential equity concerns.

GAO says agency officials responsible for developing EJ SCREEN "repeatedly cautioned us that this tool would have very limited capabilities and would need to be supplemented with additional information in order to adequately identify such communities. While agency officials informed us that EJ SCREEN will ultimately contain some definitions for environmental justice terms, these definitions will be limited to the screening tool's use and would not have agency-wide application. Absent definitions of key environmental justice terms that have agency-wide application, integration efforts are likely to be inconsistent across EPA's program and regional offices."

EPA failed to identify "the resources it may need to carry out its environmental justice implementation plans," nor has it "articulated clearly states' roles in ongoing planning and environmental justice integration efforts," GAO says. The agency also has not "developed performance measures for eight of its nine implementation plans" to track progress of Plan EJ 2014, GAO says. *The report is available on InsideEPA.com. See page 2 for details. (Doc ID: 2381673)*

Edwards, in her statement, pressed EPA on this. "If the agency wants all elements of its national structure to incorporate environmental justice values into the agency's work, there needs to be foundational definitions to guide employees. A computer program such as EJ SCREEN will only be as useful as the definitions and categories that are fed into the software. It is not a substitute for a rich articulation of what needs to be considered," she said.

But EPA in its response contained in the report defends EJ SCREEN. "We agree with the GAO regarding the need for greater consistency in how overburdened communities are identified. However, there is more than one way to achieve this goal. Our approach is to continue to develop a nationally consistent EJ screening tool."

EPA also rejected GAO's recommendation to conduct a resource assessment for implementing Plan EJ14, noting such an assessment is unnecessary because "Environmental justice is the responsibility of every program and region and this is reflected in the leadership."

Additionally, GAO recommending that EPA more directly involve states notes that without such outreach the agency's effort may be hampered "given the significant role that states have in administering some environmental programs" under delegated authority to implement EPA rules.

EPA in response says it will continue to reach out to states but expects their involvement "will vary by the nature of the work outlined in each implementation plan." For example, EPA says it "has already engaged states in our EJ in permitting work where we envision a significant state role. State involvement in other implementation plans, e.g., science tools development, may not be as significant."

Edwards requested the report while serving as ranking member of the House Science, Space & Technology Committee's investigations panel, but has since left that position to serve as ranking member of the technology subcommittee, a committee spokeswoman says, adding that Edwards has no plans to follow up on the GAO report.

Rep. Paul Tonko (D-NY) replaced Edwards as the ranking member of the investigations subcommittee. The spokeswoman says he has yet to look at the GAO findings.

Meanwhile, the federal Interagency Working Group on Environmental Justice has released for public comment equity strategies from other agencies that are part of an August memorandum of understanding (MOU) on equity issues. However, many other agencies are seeking comment on old strategies.

For example, the Department of Defense's strategy is dated March 24, 1995, and the Department of Justice released its undated strategy from the mid-1990s, but noted it has been "carefully re-evaluated" in light of the MOU and believes it continues "to fully reflect the goals and commitments of the" department. — Dawn Reeves

Activists Fear Japan's Nuclear Cleanup Levels Could Undermine EPA Policies

Environmentalists fear that controversial radiation exposure limits the Japanese government is using to set cleanup goals for areas contaminated by the Fukushima nuclear power plant disaster could set an international precedent that could undermine EPA's Superfund cleanup levels and their efforts to strengthen EPA's draft nuclear emergency guide.

Kazuo Sakai, of Japan's National Institute of Radiological Sciences, said at an International Commission on Radiological Protection (ICRP) conference in Rockville, MD Oct. 26 that Japanese officials are following ICRP recommendations that they employ a controversial cleanup approach known as "optimization" and establish cleanup goals meant to prevent radiation doses of between 1 and 20 millisivert per year (mSv/yr).

Environmentalists in the U.S. are highly critical of this dose range, saying it is equivalent to between 100 and 2,000 millirem per year (mrem/yr). The activists say that a 2,000 mrem/yr dose would cause a cancer risk to about 1 in 500 people, significantly higher than the worst-case 1 in 10,000 cancer risk that EPA's Superfund program permits when cleaning up a site.

Activists are particularly concerned about an endorsement of optimization because EPA adopted it as a cleanup approach for nuclear emergencies in a Bush-era draft revision to the agency's protective action guide (PAG) for radiological incidents. The activists feared the draft guide could cause an erosion of the agency's long-held Superfund cleanup standards.

Earlier this year, the Obama EPA floated a revised draft PAG to other federal agencies that omitted explicit references to optimization, noting that federal and state cleanup programs – such as EPA's under Superfund – already exist, and that providing separate cleanup guidance is outside the scope of the PAG, which otherwise focuses on dealing with the more immediate aftermath of such an accident.

But since then environmentalists have raised fears that there is an effort within the federal government to weaken the Obama-era draft, which is currently undergoing review at the White House Office of Management & Budget (OMB). For example, according to an internal June memo, NRC staff are lobbying OMB to delete references to Superfund and EPA drinking water standards (*Superfund Report*, Sept. 5).

Environmental groups — including the Natural Resources Defense Council, Sierra Club and Committee to Bridge the Gap — raised these concerns to top EPA officials during an Oct. 31 meeting at the agency's headquarters in Washington, DC, and according to one activist, the groups remain concerned after the meeting. *Relevant documents are available on InsideEPA.com. See page 2 for details. (Doc ID: 2382025)*

The EPA officials, including Deputy Administrator Robert Perciasepe and Assistant Administrators Gina McCarthy, Mathy Stanislaus and Nancy Stoner, gave "no clear indication at all" that the environmentalists' concerns would be addressed, the activist said.

Even if the PAG is not finalized with endorsements of optimization or relaxed drinking water guidelines, environmentalists are concerned that, if the document does not explicitly endorse Superfund and the EPA's enforceable maximum contaminant levels (MCLs) for drinking water, the door will be left open to circumvent those regulations, the activist says.

For example, if no new PAG is finalized at all, EPA will be left with the current document it published in 1992, which is silent on specific drinking water guidelines and long-term cleanup, potentially giving proponents of optimization and lax drinking water guidelines an opportunity to advocate for them in specific instances, the activist says. Publishing a new PAG that is silent on those two issues would have a similar effect, the activist says.

A lack of a clear policy on the issues is already causing EPA to act as if the Bush-era draft PAG is already in effect, the environmentalists argue. For example, EPA has stated that, despite detecting levels of radioactivity in U.S. milk and rainwater above the MCLs since the onset of the Fukushima nuclear crisis in Japan, the findings are below "any level of concern."

For this reason, activists say they are alarmed by international pressure on Japan to utilize the optimization approach in its Fukushima cleanup. In addition to the ICRP recommendations, the International Atomic Energy Agency (IAEA) in an October report urges Japan to use optimization and less stringent guidelines than it normally would.

For example, "[w]ith respect to the remediation of agricultural areas, [IAEA] considers that for the next cropping season there is room for removing some of the conservatism (such as that in factors determining the transfer of radioactive caesium from soil to crops)," the report says.

In addition, the report suggests that "[w]ith respect to waste in urban areas, [IAEA] is of the opinion that it is obvious that most of the material contains very low levels of radioactivity."

But Japanese and international officials are downplaying the significance of such urban contamination, the activist says, and are responding to it in way that it is inconsistent with how EPA's Superfund program normally would in the U.S. Given the current controversy of post-emergency cleanup guidelines in the U.S., environmentalists fear the Japanese actions could establish a precedent that could impact domestic policy, the activist says.

For example, in response to claims by Japanese civilians that testing had revealed hotspots of radioactive cesium in Tokyo soil, Kaoru Noguchi, head of Tokyo's health and safety section, was quoted in *The New York Times*, as saying

that such contamination is insignificant because most of it likely fell on concrete, rather than soil, and washed away. “Nobody stands in one spot all day,” Noguchi told the paper. “And nobody eats dirt.”

The activist says Noguchi’s statements are inconsistent with the Superfund cleanup approach and what is known about radioactive cesium. For example, cesium is known to bind to concrete if not quickly removed, the activist says. In addition, while Noguchi asserts that “nobody eats dirt,” EPA’s Superfund program routinely includes soil ingestion as an exposure pathway when assessing contaminated sites due to fears that children ingest soil when playing outside, the activist notes. — *Douglas P. Guarino*

New Studies Bolster Push For Strict New Risk Method In Radiation Rules

Some scientists are criticizing the “effective dose” method EPA and the Nuclear Regulatory Commission (NRC) sometime use to assess radiation risks and are instead calling for them to account for “actual risks,” a move that environmentalists say bolsters their calls for the agencies to abandon the method and craft more protective limits, including in EPA’s pending draft nuclear emergency guide.

But some EPA officials and other proponents of the method are defending the “effective dose” approach and its use, and say that both methods result in some scientific uncertainties.

The effective dose method — developed by the International Commission on Radiological Protection (ICRP), an international body that makes recommendations on radiation protections — is a statistical method used to assess risks of radiation.

Proponents generally favor the method because they say it allows regulators to compare radiation doses on different body parts on an equivalent basis, since different body parts react differently to exposure. The method also allows scientists to calculate an overall “effective dose” using weighting factors intended to reflect different tissue sensitivities.

But environmentalists and other critics say the method discounts harms and results in weaker regulatory requirements.

During an Oct. 25 presentation to an ICRP conference in Rockville, MD, David Brenner, of the Columbia University Medical Center, called effective dose “a flawed concept that could and should be replaced.” According to Brenner, it is “not good science” to use ICRP effective dose estimates to set exposure limits, given what he called their “highly subjective tissue weighting factor.” The effective dose method also does not account for children being more vulnerable to radiation than adults, he said.

Brenner suggested regulators should rely on a concept he called “effective risk,” which he said would be based on cancer incidence data from available epidemiological studies, “rather than [ICRP] committee-generated estimates,” that the effective dose method is based on. “Let’s use the data,” Brenner said. “Effective risk would have more objectivity.”

But ICRP officials at the conference defended the organization’s process for developing the effective dose estimates, with one official arguing that the group made draft versions to the estimates available on its website for public comment. Another ICRP official suggested that while the effective dose estimates may carry some uncertainty, limits developed under Brenner’s effective dose concept would also have a degree of uncertainty.

But “one is scientific uncertainty” and the other is “committee backroom uncertainty,” Brenner countered. “And that is what I suggest we get rid of.”

Mike Boyd, of EPA’s Office of Radiation & Indoor Air (ORIA), also took exception to Brenner’s characterization of ICRP’s estimates, however, saying it was “unfair to say ICRP uses subjective” methods and that ICRP is “quite an established body.”

ORIA has sought to use the effective dose method in crafting some of EPA policies, such as its nuclear emergency response policies, prompting backlash from the agency’s Superfund program, which uses a more stringent method. But environmentalists are concerned that if EPA is able to finalize the pending nuclear emergency policy using the method it could help make the case to weaken Superfund and drinking water cleanup levels.

Last year, the NRC proposed revising its regulations to make them consistent with revisions the ICRP had made to its recommendations, prompting legal threats from environmentalists.

In comments on the NRC proposal, environmental groups — including the Sierra Club, Committee to Bridge the Gap and the Nuclear Information and Resource Service — threatened to sue NRC if the commission did not abandon effective dose and align its regulators with more stringent Superfund standards set by EPA. The activists charged that an NRC proposal to revise its regulations based on the latest ICRP recommendations violated the Administrative Procedure and Federal Advisory Committee Acts and could lead to a weakening of U.S. standards (*Superfund Report*, Feb. 21).

The groups charged that the effective dose method discounts risks. With the effective dose method, ICRP asserts “that a cancer should not be counted as a cancer, but as a fraction of a cancer,” the activists complained. “ICRP recommends that a bladder, colon, kidney or thyroid cancer, for example, should not count as one cancer, but should be ‘discounted’ by factors including lethality, number of years of life lost for fatal cancers, and a subjective assessment of the relative degree of pain and suffering for different cancers.

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“By doing so ICRP then recommends increasing the permissible radiation exposure because it asserts that getting a cancer isn’t so bad – some people survive it, after painful treatment, and some who die from it, do so later in life,” the activists said.

While ICRP in this fashion bases its guidelines on the estimation of “detriments,” rather than cancers, and calculates “effective” dose, rather than actual dose, EPA’s Superfund program bases its regulations on the counting of actual cancers and bases its regulations on the premise that radiation exposures that would pose a cancer risk to more than 1 in 10,000 people should not be permitted, activists note. This method is proper, and EPA should apply it to all its regulations and guidelines, and NRC should adopt it, activists say.

Support from EPA officials, such as Boyd of ORIA, for ICRP’s effective dose method is of particular concern for environmentalists, who fear some within the agency could use the method to erode its long-established standards for drinking water protections and Superfund cleanups.

For example, EPA in 1991 used the effective dose method to soften its 1976 maximum contaminant levels (MCLs) for radiation in drinking water. But in 2000, the agency reverted to its original 1976 standard and a federal appellate court upheld the rule in 2003 against challenges from the Nuclear Energy Institute and National Mining Association.

But environmentalists are still concerned that the effective dose approach was at least partly behind a Bush-era proposal to establish drinking water guidelines for nuclear emergencies that were dramatically weaker than the MCLs.

The proposed drinking water guidelines, included in a draft revision to EPA’s protective action guide (PAG) for radiological incidents, were based on radiation dose conversion factors from EPA’s *Federal Guidance Report 13*, which is in turn based on ICRP Publication 60. ICRP Publication 60 utilizes the effective dose method, activists have noted (*Superfund Report*, June 15, 2009).

In addition, the Bush-era PAG proposal endorsed the ICRP-derived concept of “optimization” for long-term cleanup after an accident, which suggests that decision makers could allow people to be exposed to as much as 10,000 millirem per year (mrem/yr) of radiation after cleanup. Activists have argued that EPA has historically argued against permitting doses greater than 15 mrem, and that those allowed under optimization are dramatically higher than what is allowed under the agency’s 1 in 10,000 cancer risk limit.

Earlier this year, the Obama EPA floated a revised draft PAG to other federal agencies that deleted the less protective drinking water guidelines drafted under the Bush administration and which instead deferred to the MCLs. And rather than explicitly endorsing optimization, this version did not provide separate guidance for long-term cleanup after a nuclear accident, noting that federal and state cleanup programs – such as the one EPA has established under Superfund – already exist and that providing separate guidance is outside the scope of the PAG, which otherwise focuses on dealing with the more immediate aftermath of such an accident.

But since then environmentalists have raised fears that there is an effort within the federal government to weaken the Obama-era draft, which is currently undergoing review at the White House Office of Management & Budget (OMB). For example, according to an internal June memo, NRC staff are lobbying OMB to delete references to the MCLs and Superfund (*Superfund Report*, Sept. 5).

In addition, environmentalists say EPA’s response to the Japanese nuclear crisis suggests the agency is acting as if the Bush-era PAG is already in place. The activists have noted that since the onset of the crisis, EPA has said that the levels of radiation detected in the United States are below “any level of concern,” despite the agency having detected concentrations of radiation in milk and rainwater above the MCLs.

Environmentalists note that Brenner is not the only scientist who is arguing that there are problems with using dose, rather than risk, to evaluate radiation exposure. For example, in a May paper published by the Health Physics Society, former Department of Energy scientists F. Owen Hoffman, David C. Kocher and A. Iulian Apostoaei, argue that regulators should rely on risk in a way similar to EPA’s Superfund program, rather than the ICRP dose method, which are often adopted by other regulatory programs.

Outside of Superfund, “[e]valuations of radiation exposures of workers and the public traditionally focus on assessments of radiation dose, especially annual dose, without explicitly evaluating the health risk associated with those exposures, principally the risk of radiation-induced cancer,” the paper says.

Another disadvantage to using dose is that the “risk of cancer per unit dose will vary depending on gender, age, exposure type (acute or chronic), and radiation type,” the paper says. “It is not uncommon to find that two individuals with the same effective dose will have substantially different risks. . .

“Communication of risk . . . is essential for reaching informed consent, whether communicating to a larger community debating the tradeoffs of risks and benefits of an action that involves radiation exposure or communicating at the level of a physician and patient,” the paper adds.

The authors suggest that some parties have conversely advocated for the use of dose over risk because “dose is less readily linked to any evaluation of harm and thus is less likely to provoke reactions of outrage from persons who are concerned about the possible effects of past or future exposure.” — *Douglas P. Guarino*