

Greater-Than-Class C Low-Level Radioactive Waste EIS Scoping Comments Comments Provided Via Email

#	Name/ Address	Affiliation when Provided	Comment Date	Comment
101	<p>Lucy Collier and Peter Malmgren</p> <p>P.O. Box 438 Chimayo, New Mexico 87522 lcpm@valornet.com</p>	None given	8/11/2007	<p>This is absolutely wrong. WIPP not permitted to store this material and in any case the waste already planned for WIPP will not allow the additional gtcc to be accommodated. The laws regarding what can be put at WIPP would have to be changed.</p> <p>Placing the waste in underground holes in Los Alamos is absolutely frightening. The area already has lots of underground waste which is now leaching downhill into the water sources including the Rio Grande. New info regarding fault lines under Los Alamos recently discussed in various reports we have read. There remains huge amounts of legacy waste that need to be cleaned up from the previous years. And more revelations are coming forth about how Los Alamos has lied to the public, including release of radioactive particles into the atmosphere. Trust DOE- Los Alamos in this matter? - forget it.</p> <p>We don't want more dangerous waste trucked through our State.</p> <p>Yes the option of containing the waste onsite makes more sense - in hardened protection not easily blown up by terrorists. This should be the option chosen until a better option becomes available.</p> <p>Let's stop producing more radioactive waste. We don't have the answer for storage. Makes the nuclear industry option for energy production unacceptable. And stop making more nuclear weapons. Focus Los Alamos on finding solutions to our energy problem that helps diminish global warming!</p>
102	<p>Barbara A. Walton 85 N. Claymore Ln. 37830</p>	None Given	8/17/2007	<p>Table 1 in the NOI is very confusing with all the errors in labeling. Please have a corrected version available at the public meetings.</p>
103	<p>Elizabeth Lawrence Washington State detonatorbeth@yahoo.com</p>	None Given	8/22/2007	<p>Hey, I'm a taxpayer and a voter in Washington State. I strongly oppose dumping highly toxic nuclear waste in Hanford. Hanford is not equipped to handle this. Neither am I. I live in this state, and happily use its resources, such as the Columbia River. Many many living beings rely on the River; they also rely on you to reconsider this choice. This decision doesn't support life in any respect. It doesn't support any grandchildren you or I may have, or any other living beings 'round here. Don't do it!</p> <p>Thank you for your attention to my comments. I will be aware of the choices made. So will my body, and my body will have no choice in the matter. So I urge you to protect your body, and mine, and everybody else's.</p>
104	<p>Martin Bensky 2121 Briarwood Court Richland, WA 99354 mbensky@msn.com</p>	None Given	8/29/2007	<p>I did not attend the meeting last night in Pasco because I am tired of hearing the same hysterical carpetbaggers repeat the same line of nonsense at meetings all over this region. It is sad to see our own state's Department of Ecology play an anti-nuclear activist role rather than the informed oversight role they ought to play.</p> <p>The bottom line is that rational analysis, not politics and hysteria, ought to determine how millions of taxpayer dollars are spent. Hanford waste is not a threat simply because of its existence. The world is filled with poisons like arsenic, lead, mercury and who knows how many others with half-lives of eternity, and we have no control over where they are located, only how we interact with them when they come into over environment. We can control how we dispose of the waste currently at Hanford and the small proposed increment that is the subject of this current brouhaha, and it is, in fact, no big deal.</p> <p>Risk assessment is difficult because perfect data can never be attained, but it is generally good enough to assist in making rational decisions. However, risk assessment does not even make it to the table in these traveling circuses dominated by Gerry Pollett and</p>

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				<p>his puppets. Is it really beyond our capabilities to define credible exposure scenarios and to characterize release, transport and uptake of potentially harmful materials? Actually, analyses have been done, and they invariably indicate that disposal methods currently being implemented go well beyond the needs for protecting health, safety and the environment. Other sites will ultimately take the worst of Hanford's current waste inventory. There should be no hesitation on our part to accept waste that can most easily be managed, temporarily or permanently, by Hanford.</p> <p>I notice that I-297 came up at last night's meeting. The extortion provision that puts taxpayer money into Pollett's pocket was not discussed, so I'll only note its existence here. And how many voters knew they were supporting plastic trench liners, another Pollett obsession? It was casually noted that the initiative was defeated only in Benton and Franklin counties, though it should be noted that it was defeated overwhelmingly in Benton county. Isn't it curious that the county that clearly understands the measure best, and the county that would gain the most financially because of the increased duration and complexity of Hanford cleanup, is the county that most resoundingly rejected it? It must be hoped that the Appeals Court upholds the finding of unconstitutionality of the District Court.</p> <p>I hope that rationality will triumph over hysteria in this conflict. You have met your legal obligation to hear all the viewpoints offered to you by the public. I hope you will separate sense from nonsense and proceed in a direction that best serves this nation's needs.</p>
105	<p>Lee Poe 807 E. Rollingwood Rd Aiken, SC 29801 leepoe@mindspring.com</p>	None Given	8/30/2007	<p>Thank you for conducting the GTCC EIS Scoping meeting in N Augusta, SC on 8/23/07. I made a public comment at that meeting. This letter confirms that public comment and gives a little more information on its background and requests a paper copy of the report DOE/LLW-114 titled "Greater Than Class C Low Level Radioactive Waste: Estimated Volumes, Radionuclides, Activities and other Characteristics". This report seems to be the basis for waste to be treated. It was identified on page 40137 in the Fed Register Notice given to attendees at the meeting.</p> <p>My primary comment on the NOI is that consequences should be expressed as risk determined in open discussions with the public stakeholders. We all accept some level of risk in everything we do; for example, everybody attending the 8/23 meeting rode to and returned from the meeting accepting the transportation risk. Acceptance of Dose to Man, the typical consequence term in DOE EIS will never occur until these risks are expressed in terms accepted by the public. In fact the commenter immediately before me opposed the actions with no knowledge of what the risk was. He was referring to the population dose commitment to the people on the SC/GA coast with no stated knowledge of risk other than he used the accepted regulatory limit for tritium exposure. The risk associated with limit is regulatory limit. It poses a very small real risk. DOE should meet with stakeholders and discuss acceptable risks to get public buy-in.</p> <p>I also made the comment that mixing alternatives, where that made sense, should occur. It makes no sense to only consider the 5 alternatives in the absence of logic. Ms. Galles seemed to agree but the scope in the NOI does not give that freedom.</p> <p>I further commented that the analysis of the EIS should have preconsidered approaches for analysis of Intentional Destructive Acts. The approaches to be used should have public participation for acceptance. Depending on the approach used this could sway the analysis. I cannot imagine this GTCC waste being a prime target for saboteurs.</p>
106	<p>Mary V. Cassell Eugene, OR vcassell@comcast.net</p>	None Given	9/2/2007	<p>My name is Mary V. Cassell and I live in Eugene, Oregon. This idea of moving more toxic waste into our state to store in an area where it could leach not only into our streams but into the ocean is madness. The fact that Hanford was built on a fault and next to a tributary leading to our ocean in itself shows incredible short-sightedness. And on top of that to consider moving more waste onto that site when we haven't been able to clean up the mess that is there seems cretonnes to me. This move could possibly kill off the ocean life for the whole northwest, not to mention being extremely dangerous to our people. Whoever came up with this idea needs to go back to the drawing board and start over with a completely different idea. How about figuring out a better solution for</p>

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				cleaning up the mess we've already made and profit be damned. Life is more important than profit.
107	Karen Enns 3960 Belmont Drive Hood River, OR 97031 karenenns@yahoo.com	None Given	9/10/2007	<p>Please find attached my comments in response to the Greater-Than-Class C Low-Level Radioactive Waste environmental impact statement Public Scoping Meeting I attended here in Oregon in August. Please make sure these comments are included in the decision-making process.</p> <p>I am writing to convey my comments in regards to a Greater-Than-Class C Low-Level Radioactive Waste environmental impact statement Public Scoping Meeting I attended here in Oregon in August. While I wish the toxic waste never existed in the first place, I understand the need to find ways to safely dispose of it and appreciate the opportunity for comment.</p> <p>First and foremost, I feel it is absolutely unacceptable to consider the proposal that it be shipped to the Hanford site for any of the proposed disposal methods. As we all know, the Hanford site is unable to handle the waste it currently has. Over one million gallons of radioactive waste have already reached the Columbia River. I understand that the types of waste that you propose dumping at Hanford area currently barred from being shipped to Hanford. Reversing this is clearly a contradiction to the supposed clean-up effort. The current priority for Hanford should be clean-up and nothing other than a singular focus on clean-up should be considered for this site.</p> <p>Secondly, I am concerned about all 3 of the proposed “disposal methods” for any of the possible sites. I am not convinced that deep geologic repositories are proven safe. I am also concerned that intermediate depth boreholes and enhanced near surface disposal pose both immediate and long-term threats to human life and the environment. I will be opposed to all 3 of these disposal methods until they are scientifically proven safe.</p> <p>I would like to urge the DOE to consider “Hardened On-Site Storage (HOSS) as the safest alternative we have available to us at this time. I believe that the DOE needs to find a better solution (scientifically sound, safe, and publicly acceptable) before we commit to permanent, irretrievable disposal. HOSS seems to be a realistic option in the meantime.</p> <p>Ultimately I would like the DOE and our policy makers to invest in two things: 1) heavily fund research into finding a safe way to neutralize and dispose of all the types of radioactive waste that currently exists; and 2) a shift in focus, dollars and mentality that considers it acceptable to continue generating nuclear energy and producing nuclear waste. There are many alternatives to nuclear energy that we as a nation and world need to turn toward. We must reject nuclear energy, as we cannot ignore the significance of our inability to safely handle the waste. Thank you again for this opportunity to comment.</p> <p>See Letter/Attachment</p>
108	Terese Roeseler 1799 Markham Rd Hood River, OR 97031 tereserpt@yahoo.com	None Given	9/11/2007	<p>I am writing with concern about the upcoming DOE decisions for safe nuclear waste disposal and proposed sites.</p> <p>First, shipping additional waste to the Hanford site is absolutely unacceptable until a more effective clean-up effort is executed at Hanford. As we all know, the Hanford site is unable to handle the waste it currently contains. Over one million gallons of radioactive waste have already reached the Columbia River¹. The current priority for Hanford should be clean-up.</p> <p>Secondly, I am concerned about all 3 of the proposed “disposal methods” for any of the possible sites, especially those with water sources.. Proposed disposal methods must be proven safe with sound scientific evidence before they are considered.</p>

¹ Information disseminated at public scoping meeting

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				<p>I support “Hardened On-Site Storage (HOSS) as the safest alternative we have available to us at this time. I believe that the DOE needs to find a better solution that is safe and publicly acceptable before committing to permanent, irretrievable disposal. HOSS seems to be a realistic option in the meantime.</p> <p>Ultimately I would like the DOE and our policy makers to sufficiently fund research to discover a safe way to neutralize and dispose of all the types of radioactive waste that currently exists.</p>
109	<p>Kevin L. Nelson Health Physics Society</p> <p>e-mail from: Keith H. Dinger Health Physics Society govliaison@hps.org</p>	Health Physics Society	9/17/07	<p>Subject: Comments on Notice of Intent To Prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C (GTCC) Low-Level Radioactive Waste</p> <p>The Health Physics Society¹ (HPS) is pleased to provide public comment on the scope of the subject Environmental Impact Statement (EIS) as published in the Notice of Intent in Federal Register/Vol. 72, No. 140/Monday, July 23, 2007 page 40135 as corrected.</p> <p>The HPS has two comments. <u>Comment 1</u>: The HPS supports the scope of the subject EIS as described in the Notice of Intent for <u>GTCC and Department of Energy “GTCC-like” waste</u> with the caveat that there be clear stakeholder involvement in the decision-making process that would allow disposal of waste streams not originally destined for the Waste Isolation Pilot Project (WIPP). <u>Comment 2</u>: The HPS requests that the DOE take the actions necessary to allow it to expand the scope of the EIS to also include <u>non-GTCC Class B and Class C radioactive waste, which may not have an identified path to disposal, at each of the alternative sites evaluated in the scope of the subject EIS.</u> These two comments are discussed below.</p> <p><u>Comment 1 Discussion</u>: Recommendation 4 of “Low-Level Radioactive Waste Management Needs a Complete and Coordinated Overhaul,” a position statement of the Health Physics Society (http://hps.org/documents/lowlevelwaste_ps009-2.pdf), states “we strongly support [the Department of Energy (DOE)] efforts to prepare an Environmental Impact Statement under the National Environmental Policy Act to evaluate additional alternatives for disposal of greater-than-Class C wastes. These include deep geological disposal facilities, existing LLRW disposal facilities (both commercial and federal), and new facilities (both commercial and federal) at federal sites or on private land.”</p> <p>The scope of the subject EIS is consistent with this recommendation.</p> <p>Regarding consideration of WIPP in the scope of the EIS, the HPS paper “Background Information on ‘Low Level Radioactive Waste Management Needs a Complete and Coordinated Overhaul’,” http://hps.org/documents/lowlevelwaste_background_bi009-0.pdf, states</p> <p>“We are very sensitive to the fact that the WIPP was initially approved with a clear understanding it would not be made available for non-defense-related waste and that a reversal of that promise to the people of New Mexico should not be done lightly. However, the great national need for a safe and timely disposal option for this most highly radioactive category of LLRW calls for an evaluation of all options. Therefore, <i>we recommend stakeholder involvement in the decision-making process to consider allowing disposal of waste streams not originally destined for WIPP under the National Environmental Policy Act of 1969</i>” (emphasis added).</p> <p>Thus, our caveat in Comment 1 regarding the stakeholder involvement in the evaluation of WIPP.</p> <p><u>Comment 2 Discussion</u>: Recommendation 5 of our position statement states</p> <p>“we urge Congress to direct federal action to ensure that disposal options and capacity for Class B and Class C waste will exist for all states in the future. This can be achieved by use of commercial or private facilities on federal or private lands to mitigate significant adverse consequences to generators of these wastes.”</p> <p>Despite our urging, Congress has not taken action to ensure disposal options exist for Class B and Class C (Class B/C) waste.</p> <p>Due to the actions of the state of South Carolina, generators of Class B/C waste that do not belong to the Atlantic Compact and all</p>

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				<p>licensees that currently possess sealed sources will no longer have access to the EnergySolutions facility in Barnwell, SC after July 2008. The HPS believes that an alternative that should be fully explored for the long-term is exploring the feasibility of allowing disposal of Class B/C waste at the facility that will be developed by DOE for disposal of GTCC. We understand that the subject EIS is being performed as directed by the Energy Policy Act of 2005, which requires this EIS for GTCC LLW. Although the Energy Policy Act of 2005 does not <u>require</u> the inclusion of Class B/C waste, it does not appear that the Act <u>precludes</u> including this category in the study. I do not believe that inclusion of Class B/C waste in the EIS would establish any legal responsibilities for DOE to dispose of this class of waste. However, it would establish a basis for Congress to consider whether or not this is an option for managing the waste once a disposal pathway no longer exists.</p> <p>The HPS feels that DOE could obtain the agreements it needs from Congress and other federal agencies, such as the NRC, to include Class B/C waste in the EIS without violating the law while providing Congress the option of evaluating this as one pathway for control and disposal of this waste stream. This is consistent with DOE including "GTCC-like" waste in the scope of the EIS since both GTCC-like waste and Class B/C waste are wastes that may not have a path for disposal. Furthermore, the subject EIS includes an evaluation of "disposal of GTCC LLW and GTCC-like waste in a new intermediate depth borehole facility and enhanced-near surface facility at existing DOE sites and generic commercial locations." Presumably, these facilities will already be designed or licensed to accept Class B/C waste so the final configuration under evaluation will be a site with a combination GTCC and Class B/C wastes. It is only appropriate that all alternatives be evaluated for this same final configuration of waste inventory.</p> <p>The Government Accountability Office (GAO) report "DOE Needs Better Information to Guide Its Expanded Recovery of Sealed Sources, GAO-05-967 (September 2005)," which is one of the referenced GAO reports in the subject Notice of Intent, cites the Health Physics Society's concern that "that the lack of a GTCC and non-GTCC waste disposal option for unwanted sealed radiological sources that pose security and public health concerns will continue to increase the number of orphan sources."</p> <p>The non-GTCC waste reference in this statement is specifically to Class B and Class C sources. The HPS continues to have this concern, which the reason for recommending the EIS be expanded to include Class B and Class C waste.</p> <p>The HPS does not believe the evaluation of including Class B and Class C waste in all alternatives will be onerous or will drastically change the conclusions of the EIS considering the projected total activity of GTCC and GTCC-like waste through 2062 is about seven times more than Class A, B and C waste.²</p> <p>Sincerely, Kevin L. Nelson, PhD, CHP</p> <p>See Letter/Attachment</p>
110	Jim Bartman Knoxville, TN	None Given	9/19/2007	<p>I could not review vital information contained in the old NEPA documents. I request that you post the previous tiered NEPA documents (WM PEIS and related EAs) on your website. You need to extend the comment period so you can post these documents, in an effort to compromise at this time, posting the scoping comments, alternatives presented and dismissed, and comment response documents from the previously completed Programmatic documents would be helpful. My concern is relevant comments are buried in those documents. I would have liked to screen the collection of previous NEPA document public comments myself for relevance, however that is not viable. I ask for your project team to screen those documents for relevant public comments submitted years ago especially alternatives and mitigations. To adequately comment on your DEIS, I'll need the previous documents posted on the web especially sections pertaining to Scoping, Purpose and Need, the Alternatives, and the Comment and Response Document.</p> <p>1. I'm not very smart and my English should be better so can you show me where in the NOI the Agency actually states the</p>

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				<p>“need” to do something. As I read the Purpose and Need section, the Agency crafted three sentences. In the first sentence the DOE states there is no facility; the second says DOE is responsible (I’ll refrain from the humor), and then DOE has no solution, which is a repeat of the 1st sentence (now the Agency is using humor). Is not the Agency required by law to clearly state what the Agency needs?</p> <p>When the Agency actually states its need in the NOI, I’d recommend stating these wastes need to be properly treated and disposed to reduce their impact to human health and the environment.</p> <p>2. A reasonable independent (unlike a reasonable influenced) person would find that since the Agency did not identify it’s Need in the NOI, the Agency needs to restart the process by reissuing the NOI stating the need and rescheduling scoping. How can the Agency scope an unstated need? Since NEPA is a procedural based Law the implementation by the agency must be correct. In the next NOI please state the reason for repeating the process.</p> <p>3. Following #1 isn’t the phrase “permitted disposal facility” improperly used since there is no existing permit process in place and if a permit process were in place then the agency wouldn’t have a problem. Isn’t “authorized”, “regulated”, or “licensed” a better word? If there is a permit process then isn’t the Agency need ... the construction of a facility in accordance with blah blah blah?</p> <p>4. Again, in the Proposed Action section, the 1st sentence is poorly worded. The Proposed Action should read “The Department proposes to meet its need by constructing a new facility....”</p> <p>5. Why is the Agency discussing closing a proposed facility in the proposed action? Although not stated the Agency’s need is a facility, not need and close. If the Agency does need closure then shouldn’t the “Need” statement reflect this additional requirement. You are doomed to fail and I would not recommend this. Eventual closure is a future action to be covered in future NEPA that is not part of the need today. KISS</p> <p>6. Give the author a raise (sorry that wasn’t nice of me).</p> <p>7. The last two sentences of the Proposed Action do not belong (Alternatives).</p> <p>8. Do I understand table 1? The proposed 4,600 cubic meters of waste is equivalent to WIPP’s projected RH waste in volume but this “new” waste is 2 orders of magnitude more radioactive 5 M vs 130 Mci? WOW!</p> <p>9. Would disposal at a Uranium mine be an option?</p> <p>10. Would disposal at a Uranium mine waste site be an option?</p> <p>11. What about a former underground test blast hole? It’s !@#*!’d up. Can’t you make a shaft and throw the stuff in? Or make a new hole and blast one of the old bombs because it might be too dangerous to dismantle?</p> <p>12. What I don’t understand is weapon grade Uranium can be blended down prior to disposal but LLW from TRU operations can’t be blended down prior to disposal as Type A, B, or C. My suggestion is blend down. 5,000 cubic meters is so small it is silly. Would not blending weapon grade Uranium with these sources make the Uranium bi-product difficult to purify? Thus solving two problems?</p> <p>13. What about blending depleted uranium with these materials and disposing the resulting depleted uranium in a former mine?</p>

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				<p>14. DOE needs to establish a formal screening process to score disposal locations and methods empirically and quantitatively not qualitatively with specific parameters (such as see comment #23).</p> <p>15. Are there no mitigations the Agency proposes at this time? If no, why?</p> <p>16. Can the waste be bombarded with atomic particles to speed up the decaying processes and reduce curie content faster?</p> <p>17. What about interim recoverable storage (for 50 years so the curie content drops) in a series of bunkers that is covered by earth such that a plane could not get through? Weapons and material are stored that way. Or a series of old missile silos? Or deep ocean burial?</p> <p>18. I'll admit this is dumb but the sources cannot be reverse engineered? Putting the Genie back in the bottle? Thus rendering the material less toxic.</p> <p>19. Can't these sources be configured and consumed in a reactor as a fuel rod, part of a fuel rod, or just placed in a fuel rod so the waste becomes high-level rather than LLW greater than "C"?</p> <p>20. What about a series of 250 tests (20 cubic meters each, one truck load) to evaluate the impacts of a dirty device for the purpose of evaluating dispersion. Under Homeland Security the tests would be conducted a deep salt formation, then abandon the site after the tests. These tests would include methods to detect, contain, reduce, and remediate contaminates. Similar to tests conducted for the nuclear weapon complex at NTS or the Pacific atolls. Explode and evaluate.</p> <p>21. My compliments to your web designer your website is very good, should be a model for Y-12, Complex2030, etc...</p> <p>22. What about vitrification?</p> <p>23. I require the Agency establish a Site Screening Committee to systematically evaluate the potential of DOE and other sites as alternative processing/disposal sites. The site screening process must evaluate a large number of candidate sites to determine the range of reasonable alternative sites. I recommend the Agency develop site suitability criteria, apply the criteria to candidate sites, and determine the best sites to represent the range of reasonable site alternatives.</p> <p>At least five (you should come up with more) exclusionary criteria to be used to qualify sites for consideration as reasonable candidates are as follows. In order to be considered in the reasonable range, a site must be:</p> <ul style="list-style-type: none"> • Located within the boundaries of the 48 contiguous states of the U.S. and accessible during all seasons by all-weather highways. • Currently owned by or transferable to the Federal Government. • Available for use by the Agency in 2017 (ten years from now). • Under Agency control through at least 2017. • Capable of managing a minimum of 5,000 cubic meters (less may be an option you decide). <p>Then introduce additional screening criteria to assess how well each remaining site was suited for the intended use. These additional criteria would cover at least (you should come up with more):</p>

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				<ul style="list-style-type: none"> • Degree of construction required adapting existing facilities for the proposed action. • Degree of isolation from civilian populations. • Indication of environmental hazards potentially impacting the intended mission. <p>Then after applying these criteria to sites and visiting finalist sites to look at the specific facilities select alternatives for the proposed action. In parallel to the committee's screening of agency sites, Other Agency (i.e., DOD) committee(s) should conduct a review of X installations to determine which ones are feasible for the proposed action. Using the same site screening criteria, these additional committees may find that most of the examined installations either had missions incompatible with the proposed action or are too far into other use/closure process to be made available to the agency. If another agency facility appeared to be feasible for the proposed action, then ask the other agency to concur that these sites were available for the proposed action and for each Other Agency to become a Cooperating Agency for the preparation of this EIS.</p> <p>24. For disclosure purposes I've submitted comments to Y-12 EIS and Complex 2030. I'll horse trade these comments and future comments (I've asked the same of the other projects) if the agency will as part of the NEPA process, through a direct grant, land lease deal, lease stipulation to a private developer, land swap with Roane County, Roane State Community College, TVA, a third-party, or other means set aside land and help with any necessary development (e.g., parking lot) AYSO Region 727 in Roane County, TN (they need soccer fields). I would imagine the cost of the horse trade would be less. The above projects may disagree.</p>
111	Zenda Boss-Hall Zendaboss- hall@msn.com	None Given	9/19/2007	<p>I am concerned that the Columbia River is in danger of being irrevocably contaminated by Hanford. The idea of adding more waste to the area is breathtakingly crazy to me. We need to have Hardened On-Site Storage implemented and stop adding more waste to the site.</p> <p>Besides the continued threat to the Columbia River, I would be surprised if Hanford is not on a geologic fault. Hanford is too close to the Columbia to be a safe repository as our National Radioactive and Toxic Waste dump.</p> <p>Blessings, Zenda</p>
112	<p>e-mail from Marthea Rountree EPA 1200 Pennsylvania Ave, NW Washington, DC 20460</p> <p>Attached letter from: Anne Norton Miller Director, Office of Federal Activities U.S. EPA Washington, DC 20460</p>	U.S. EPA	9/19/2007	<p>In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act, the Environmental Protection Agency (EPA) has reviewed the Department of Energy's Notice of Intent (NOI) for the Disposal of Greater-Than-Class C Low-Level Radioactive Waste (GTCC LLW).</p> <p>GTCC waste is commercial LLW generated from activities conducted by Nuclear Regulatory Commission licensees and stored at the site where it is generated. The Low-Level Radioactive Waste Policy Act assigned the responsibility for the disposal of GTCC LLW to the Federal Government; the Energy Policy Act of 2005 further assigned this responsibility to the Department of Energy (DOE). GTCC LLW is grouped into three general waste types: 1) activated metals, which come from the maintenance and decommissioning of nuclear power plants; 2) radioactive sealed sources that are no longer used, including those used for irradiation of food and medical purposes; and 3) miscellaneous waste, such as contaminated equipment from industrial research and development. In addition to the GTCC LLW, DOE proposes to evaluate certain LLW and transuranic waste that is generated by DOE activities.</p> <p>DOE proposes to evaluate a range of disposal methods and locations that include: 1) geologic disposal at the Waste Isolation Pilot Plant; 2) geologic disposal at the proposed Yucca Mountain Repository; 3) enhanced near-surface disposal at the Hanford Site-Washington, Idaho National Laboratory, Los Alamos National Laboratory-New Mexico, Nevada Test Site, Oak Ridge Reservation-Tennessee, Savannah River Site-South Carolina, Waste Isolation Pilot Plant vicinity-New Mexico, or a generic commercial location should such a facility be identified in the future; and 4) intermediate depth borehole disposal at the same locations</p>

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				<p>identified in alternative 3. These alternatives will be considered both individually and in combination.</p> <p>The NOI identifies a preliminary list of issues and environmental resources to be addressed which include, but are not limited to: endangered species, transportation, accidents, water, air, and cultural resources. In general, EPA agrees that the list of issues is appropriate for the proposed action. However, with regard to water quality, we recommend that the EIS discuss how water quality standards will be met for the life of the project. This is a particular concern in areas that have a shallow ground water table such as the Savannah River Site. Additionally, where appropriate, the EIS should evaluate the geologic conditions of the project area(s) and how they will be impacted by the project.</p> <p>In addition, the EIS should quantify the projected volume of “mixed waste” that will be regulated under the Resource Conservation and Recovery Act (RCRA). Towards this end, we recommend that the EIS clearly document the process by which DOE will work with both EPA and the respective state entities to meet RCRA permitting requirements.</p> <p>Finally, while the NOI indicates that EPA has agreed to participate as a cooperating agency in the preparations of the EIS, it would be beneficial for the EIS to clearly identify all federal and non-federal cooperating agencies. This discussion should include any jurisdictional authorities by law and / or special expertise.</p> <p>We appreciate the opportunity to review the NOI. The staff contact for the review is Marthea Rountree and she can be reached at (202) 564-7141.</p> <p>Sincerely, Anne Norton Miller</p> <p>See Letter/Attachment</p>
113	Sharree Olsen 1157 Methodist Road Hood River, OR 97031	None Given	9/20/2007	<p>I am writing to address the U.S. Department of Energy’s proposal to truck “Greater-Than Class C Low Level Radioactive Waste” from around the country to the Hanford Nuclear Reservation. While I can appreciate the need for a permanent disposal site for this waste, I adamantly oppose using Hanford as the depository.</p> <p>As I’m sure you are aware, the DOE has been in the process of cleaning up Hanford for almost two decades and has a long way to go before that job is finished. To add more waste on top of what is already there is contradictory to the clean up effort currently underway. I understand the proposed types of waste are currently banned from shipment to Hanford. To change this policy and import new waste of any kind will only compound the waste treatment and disposal problems, not accelerate the cleanup. Restoration of Hanford needs to be a top priority of the DOE!</p> <p>Furthermore, the risk of trucking nuclear waste on our busy highways is a recipe for disaster. A traffic accident could potentially contaminate hundreds of miles and expose countless people to this nuclear waste.</p> <p>I urge you to eliminate Hanford from your short list of sites for this waste. Let’s finish the job at Hanford before adding more waste to this already compromised environmental disaster.</p>
114	Dona Hippert Public Interest Attorney 11723 SW 47 th Ave Portland, OR 97219	None Given	9/20/2007	<p>Most federal agencies allow for electronic submission of comments until midnight on the deadline date. Could you please confirm for me that this is the DOE practice, to be used for the GTCC comments due tomorrow?</p>

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115	<p>e-mail from: Joe Strolin Nevada Agency for Nuclear Projects Office of the Governor 1761 E. College Parkway, Suite 118 Carson City, NV 89706</p> <p>Letter from: Robert R. Loux Executive Director Office of the Governor, Agency for Nuclear Projects 1761 E. College Parkway, Suite 118 Carson City, NV 89706</p>	State of Nevada, Office of the Governor Agency for Nuclear Projects	9/20/2007	<p>RE: Notice of Intent to Prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste. 72FR140, July 23, 2007, pp. 40135-40139.</p> <p>Dear Mr. Joyce:</p> <p>This letter is to provide comments of the State of Nevada¹ on the above cited Notice of Intent (NOI). On June 9, 2005, we submitted comments on behalf of the State of Nevada, on the May 11, 2005 <i>Advance Notice of Intent (ANOI) To Prepare an Environmental Impact Statement For the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste</i>, which we here incorporate by reference.</p> <p>Please note that, as discussed in the comments below, the State of Nevada¹ is adamantly opposed, on both scientific and legal grounds, to the use of either the proposed high-level waste repository at Yucca Mountain or the Nevada Test Site (NTS) for Greater-Than-Class-C (GTCC) waste disposal. Further, be advised that Nevada will vigorously contest any attempts by DOE to designate Yucca Mountain or the NTS as GTCC waste disposal sites. Consequently, we strongly urge DOE to remove Yucca Mountain and the NTS from the analysis of potential alternative locations in the EIS.</p> <p>¹ These comments were compiled by the Nevada Agency for Nuclear Projects (Office of the Governor) with input from the Nevada State Health Division and the State Historic Preservation Office.</p> <p>Yucca Mountain and the Nevada Test Site are not realistic alternatives and should be dropped from consideration in the EIS</p> <p>Of the five alternatives proposed for evaluation in the NOI, sites in Nevada are featured in three. Alternative 3 would have disposal take place at the potential high-level nuclear waste repository at Yucca Mountain. Alternative 4 includes disposal in a new enhanced near-surface facility, possibly located at the Nevada Test Site. And, Alternative 5 includes disposal at a new intermediate depth borehole facility, possibly located at the Nevada Test Site.</p> <p>The State of Nevada is strongly opposed to the use of either Yucca Mountain or the Nevada Test Site for the disposal of GTCC waste. Nevada believes that Yucca Mountain is geologically and technically unsuitable and unsafe for the disposal of spent nuclear fuel and high-level radioactive waste, and it would be equally unsuitable for GTCC waste disposal. Likewise, the NTS is an inappropriate location for such disposal. Many of the same conditions that disqualify Yucca Mountain are also present at the NTS (i.e., active seismic area; fast groundwater pathways; potential for renewed volcanism; highly corrosive subsurface environment; etc.). In addition, there are serious issues with cumulative impacts to the environment from past weapons testing activities (and resulting contamination) and current and planned low-level and mixed-low-level waste disposal activities.</p> <p>Alternative 3, involving Yucca Mountain, is not a realistic alternative for consideration in the planned EIS. Under current, unrealistically optimistic DOE plans, it will not be known whether a Yucca Mountain repository is permitted to accept spent nuclear fuel and high-level radioactive waste until at least 2017, and likely considerably later, if ever. And then, the Nuclear Regulatory Commission license, if granted, would require amendment to accept GTCC and GTCC-like waste. This alternative prejudicially assumes that Yucca Mountain will be licensed as a repository and creates a conflict of interest for both the NRC, which will be a commenting agency for the GTCC EIS, and the EPA, which will be a cooperating agency (p.40136). EPA has yet to complete setting the environmental, safety and health standards for a Yucca Mountain repository, and NRC has yet to finalize its rules for evaluating a DOE application for a repository license at Yucca Mountain. NRC must rule on whether the EPA standard will be met if DOE submits a Yucca Mountain license application.</p>

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				<p>But, Alternative 3 also relies on an unacknowledged assumption that the Nuclear Waste Policy Act, as amended, authorizes the use of a Yucca Mountain repository for disposal of GTCC and GTCC-like waste. While the 2002 Yucca Mountain EIS considers these wastes in one of its options for extended use of the repository if the statutory capacity limit is repealed or increased, it does not explicitly consider the question of statutory authority for disposal of these wastes at Yucca Mountain.</p> <p>The proposed use of the Nevada Test Site for Alternatives 4 and 5 also is not realistic or defensible. Nevada will strongly oppose any effort to use NTS for any GTCC waste disposal alternative. The original 1952 administrative land withdrawal for the Nevada Test Site (Public Land Order 805) specified its use as a “weapons testing site.” In 1994, the State of Nevada filed a complaint in the U.S. District Court in Las Vegas against the Department of Energy alleging that the land withdrawals for NTS do not include low-level radioactive waste disposal from offsite sources as an intended use of the land. A settlement agreement was signed in April 1997, with a key component being DOE’s commitment to initiate “consultation with the United States Department of the Interior concerning the status of existing land withdrawals for the NTS with regard to low-level waste storage/disposal activities.” Nothing productive has come from that commitment.</p> <p>In the Fiscal Year 2005 House Report to the Energy and Water Appropriations bill, there was a directive to DOE “to enter into formal consultations with the Department of the Interior regarding the multiple uses [of NTS] and, if necessary, <i>revise and update the land withdrawal to reflect those additional uses.</i>” In May 2007, DOE, responding to questions from the Senate Armed Services Committee, reported that consultations had been under way since 1997, without resolution. On June 29, 2007, Nevada Senator Harry Reid wrote to Energy Secretary Samuel Bodman that “the issue of the land status of NTS must be resolved” prior to any plans being made to ship waste (under another DOE proposal) to NTS. At present, the land withdrawal status of the Nevada Test Site does not permit its use for disposal of GTCC and GTCC-like waste, despite the statement in the NOI that “identification of these sites for potential analysis is based on mission compatibility” (p. 40138). Nevada considers any proposal to use NTS for this purpose to be in violation of the Settlement Agreement and illegal under the NTS land withdrawal legislation, and the State will challenge any attempts by DOE to use NTS for GTCC waste disposal of any kind.</p> <p>The NOI says that the EIS “will describe the statutory and regulatory requirements for each disposal alternative and whether legislation or regulatory modifications may be needed to implement the alternative under consideration” (p. 40138). The status of Yucca Mountain’s availability even for consideration, as proposed in Alternative 3, is that it is a non-viable alternative. Nevada intends to vigorously contest any attempt by DOE to move forward with the Yucca Mountain project and to seek a license for the project from the NRC. The simple fact is that Yucca Mountain is NOT, and likely will never be, available for waste disposal of any kind. As such, this alternative should not even be included in the planned EIS for disposal of GTCC and GTCC-like waste.</p> <p>Likewise, the current status of NTS is that it, too, is unavailable and not viable and should not be considered as an alternative location for GTCC disposal in the EIS.</p> <p>The EIS should be a Programmatic EIS</p> <p>In our 2005 comments, we stated: “Given the complexity of issues and diversity of waste types that need to be addressed in the planned National Environmental Policy Act (NEPA) process, the development of a “Programmatic Environmental Impact Statement (PEIS)” is warranted. DOE should consider developing a PEIS to reach decisions about major issues such as single versus multiple disposal sites; selections of disposal site configuration (i.e., borehole, repository, etc), and life cycle cost estimates for long-term surveillance and maintenance of disposal sites. By developing a PEIS, DOE could address these and other critical decisions as outlined below and subsequently “tier” EISs for specific program elements from</p>

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				<p>the PEIS (as “tiering” is defined in the Council of Environmental Quality (CEQ) Regulations 40CFR 1508.28).”</p> <p>We note that the current NOI, in summarizing and responding to public comment on the ANOI, does not acknowledge this comment. But, the NOI does indicate that the planned EIS will be programmatic to a limited extent. It states: “Including a generic commercial facility in the EIS would allow DOE to make a programmatic determination regarding disposal of GTCC LLW and GTCC-like waste in such a facility. Should one or more commercial facilities be identified at a later time, DOE would conduct further NEPA review, as appropriate.” (p. 40138, emphasis added). Given the range of decisions intended to be supported by the planned EIS, including single versus multiple sites, alternative disposal methodologies, and variable disposal methodologies based on waste characteristics, as well as the many current statutory and regulatory uncertainties, we remain convinced that the EIS should be wholly programmatic with all resulting preferred alternatives being submitted to further NEPA review on a site-specific basis.</p> <p>Criteria for Identifying Disposal Site Locations & Waste Confinement Configurations</p> <p>Criteria for evaluating the alternative disposal site facility locations should be included in the EIS. For example, why were Idaho National Lab, Nevada Test Site, Los Alamos National Lab, Waste Isolation Pilot Plant, Savannah River Site, Oak Ridge Reservation, and Hanford identified as alternative locations for a new intermediate depth bore-hole facility and an enhanced near surface facility? Alternative locations should be identified based on objective and relevant criteria, such as favorable geology and/or engineering advantages, the distance of disposal sites to human receptors, risk and cost of transporting waste, waste packaging alternatives, etc. The only criteria to be inferred from the NOI appears to be that the location is an existing DOE site.</p> <p>Likewise, criteria needs to be presented in the EIS to support the selection of alternative disposal site confinement configurations such as deep geological disposal, boreholes, and intermediate shallow land burial. Examples of selection criteria might include alternative geological formations, depth to groundwater, seismic activity, climate, flood plains, etc. The EIS should contain a thorough discussion as to why the identified alternative disposal approaches were selected.</p> <p>Table 1 lacks complete information</p> <p>We note that Table 1, Inventory Summary of Estimated Quantities of GTCC LLW and DOE GTCC-Like Wastes, was the subject of a subsequent correction notice (72FR146, July 31, 2007, p. 41819.) The corrected table is an incomplete rendering of its original source document, Table ES. 1 in the July 2007 <i>Greater-Than-Class C Low-Level Waste: Inventory Estimates</i>. The important information in Footnote (b) of the source document is not provided in Table 1 of the NOI, although an incomplete version of the information is incorporated into the text of the NOI. The missing footnote provides the basis and assumptions for the projected quantities of activated metals in Table 1 and should be included in its entirety with Table 1. Different assumptions could lead to significantly different projected amounts of activated metals that may have an effect on later decisions that rely on the EIS. The source(s) of the information in Table 1 also should be provided.</p> <p>In addition, it appears that the data collected for Table 1 was deficient, at least with respect to sealed sources held by DOE/ NNSA. A program to collect sealed sources that are no longer in use by commercial entities is being carried out by NNSA, which recently reported having collected more than 15,000 of these sources containing over 0.074MCi, nearly six times the amount reported in Table 1. This NOI should have, and the EIS should provide a comprehensive and verifiable inventory of GTCC and GTCC like waste.</p>

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				<p>Lifecycle Costs</p> <p>As we noted in comments on the ANOI in 2005, a programmatic decision concerning the long-term surveillance and maintenance costs and funding sources for retaining institutional controls over radioactive waste disposal sites should be addressed in the EIS. Specifically, the EIS should identify the estimated lifecycle costs for each of the alternatives evaluated. This is a significant programmatic decision given the longterm hazards to human health and the environment posed by GTCC waste. Hence, DOE should demonstrate the true long-term costs for maintaining in-perpetuity control of a single disposal site and/or multiple sites considered for GTCC wastes and potentially other “high activity” low-level wastes managed by DOE.</p> <p>Regulatory issues must be resolved</p> <p>By law, a GTCC facility must be regulated by the NRC. Inclusion of DOE’s GTCC-like wastes that currently are managed under DOE Orders and stored at DOE facilities that operate under DOE Orders, will require that they be brought into the NRC regulatory regime. This is not a simple process, as evidenced by the high-level waste program where the decision was made to co-mingle commercial and defense waste. Resolution of waste characterization and security issues should be described in the EIS. Similar issues and additional regulatory authority matters arise with the DOE sites that are under consideration for a GTCC facility. The EIS should describe how an NRC regulated facility can co-exist with a DOE self-regulated facility, or an EPA/state regulated facility, such as WIPP, and how the public can be assured that the NRC regulatory authority has primacy at the GTCC facility.</p> <p>Transportation of GTCC Waste</p> <p>Any NEPA analysis addressing disposal of GTCC waste must thoroughly describe the transportation of such waste from generator/storage sites to proposed disposal facilities, and all impacts associated with such transportation must be fully assessed. Transportation issues and impacts could be addressed in a more general manner in the PEIS and subsequently dealt with more specifically in tiered site-specific EISs. Issues to be covered in the PEIS/tiered EISs include, but are not necessarily limited to, characteristics of the various forms of GTCC waste and the risks posed during transport; types and characteristics of shipping containers to be used for the various types of GTCC waste and documentation supporting the choice of containers; modes of shipment (highway, rail, barge); routing issues, including the identification of preferred and alternative routes from generator/storage sites to proposed disposal locations; consequences of worst case accidents involving GTCC waste shipments; potential for and consequences of successful sabotage or terrorism against GTCC shipments; and radiological and non-radiological impacts to people and communities located along GTCC shipping routes, including socioeconomic, risk perception and stigma-relate impacts.</p> <p>Historic Preservation Comments²</p> <p>DOE currently lacks a programmatic agreement for managing historic properties in the Yucca Mountain Project Area for the licensing stage of the project. The old agreement signed in 1988 dealt with the characterization phase of the YMP and not licensing. It does not reflect the amendments to the National Historic Preservation Act of 1992 or the changes to the accompanying regulations (36 CFR 800) to Section 106 of the Act, Protection of Historic Properties dated August 5, 2004. If, despite the strong State opposition to the use of NTS or Yucca Mountain, DOE seeks to persist in including the Nevada sites as alternatives for analysis in the EIS, DOE must include this latest proposed GTCC activity in a new negotiated agreement, and the EIS must thoroughly assess</p>

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				<p>impacts to historic properties/historic reservation resulting from GTCC waste disposal and related activities. Likewise, the cumulative effects of additional undertakings upon historic properties within both the Yucca Mountain Project Area and the NTS must be assessed. What are the long term effects of augmenting the labor force and number of areas where projects are constructed? It will become increasingly difficult to avoid impacting archaeological sites. The Nevada State Historic Preservation Office expects the EIS to address all historic properties present within the Yucca Mountain/NTS area, not just those within the area of direct effect.</p> <p>2 These comments are submitted on behalf of the State of Nevada State Historic Preservation Office. For questions, contact Alice M. Baldrice, 775-684-3444, ambaldri@clan.lib.nv.us .</p> <p>Western Governors' Association Comments</p> <p>The State of Nevada endorses comments on the NOI submitted by the Western Governors' Association (WGA) Technical Advisory Group and incorporates them by reference in these comments.</p> <p>We appreciate the opportunity to comment on the Notice of Intent. If you have any questions, please contact me. Sincerely, Rober R. Loux, Executive Director</p>
116	<p>Greg deBruler Columbia Riverkeeper Hanford Technical Consultant P.O. Box 912 Bingen, WA 98605</p>	<p>Columbia Riverkeeper (CRK)</p>	<p>9/21/2007</p>	<p>I am writing on behalf of Columbia Riverkeeper (CRK) to issue scoping comments in the hopes that USDOE will adhere to the intent of National Environmental Policy Act (NEPA) and assess any and all credible potential impacts that may occur from existing waste or additional waste for as "long as the waste remains hazardous". My statement of hope is based on 20 years of commenting on EIS's where most all of the time they are limited in scope and do not meet the intent NEPA.</p> <p>The timeline of this EIS is not adequate enough to assess what is required by NEPA. I understand that timelines are given to create end dates, but this timeline is being driven not from what is required to perform a credible assessment but by some arbitrary timeline for decision-making. In order to perform a credible scientifically sound EIS that will with stand the rigors of any potential legal challenge the timeline for this EIS must be extended.</p> <p>As mentioned at the Troutdale meeting, it is required under NEPA to assess all potential impacts, to include any and all information from exiting EIS's, EA's, risk assessments that have been performed or are currently being performed. To ensure that this EIS is inclusive in nature and is based on credible scientific data.</p> <p>The EIS must include the existing contaminated wastes site and their long-term potential impacts to groundwater and the ecosystem. This EIS must be comprehensive and cumulative in nature, it should not be limited in scope to a specific waste site of this proposal, because the cumulative potential impacts are critical to the protection of our nations aquifers and rivers. It must assess all the potential transportations risks including the potential for a terrorist attack on one or more of these shipments. Historically USDOE has failed to adequately assess these risks. USODE's rationale for not assessing these risks was USDOE did not think such risks were credible. Homeland Security and the Department of Transportation assess these risks and USDOE must assess such potential risks. The results of these assessments must be made available to the public for full analysis.</p> <p>The draft EIS cannot ignore the potential cumulative effects from past, present and reasonably foreseeable actions that may and in fact are being cause caused by these waste types as required by NEPA and its implementing regulations. 40 C.F.R § 1508.25.</p> <p>Given the massive environmental contamination that has already exists at Hanford and other sites any proposal to ship additional radioactive waste is the exact reason for the need of a comprehensive cumulative impact assessment. It is critical to the long-term protection of human health and the ecosystem especially when you consider the half-life of some of these wastes.</p>

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				<p>This EIS should be comprehensive and cumulative and needs:</p> <p>To adequately disclose and describe the direct, indirect and cumulative effects of the proposed alternatives.</p> <p>To fully disclose the effects of existing contamination at Hanford and clearly identify the magnitude of uncertainties or potential effects that may occur under the proposed alternatives. The analysis of impacts should assess the potential impacts “for as long as the waste remains hazardous”.</p> <p>To provide a comprehensive analysis of the site-specific effects of transporting, storing, treating, and managing additional waste to Hanford including all cost for the full life cycle.</p> <p>To consider the effects of waste generated during environmental cleanup which are certain to pose potential cumulative effects in relation to the proposed disposal of GTCC</p> <p>To assess the full life cycle costs from removal, transport, burial, monitoring and potential retrieval during Long Term Stewardship for as long as the waste remains hazardous. This is critical since the length of time some of these waste remain hazardous.</p> <p>To assume failure of institutional controls that will require the retrieval and possible treatment of waste.</p> <p>To rely on DOE’s 25 m/rm dose standard is inconsistent with EPA’s guidelines that recognize this level of exposure is not protective of human health. Any assessment of human health risk meet the Washington States MTCA, and EPA carcinogen-risk standards for radionuclides.</p> <p>To assess the future risk DOE must use the findings of Beir VII and assess risks for the potentially maximum exposed individual over the time the waste remains hazardous.</p> <p>To assess the potential impacts DOE must bound the uncertainty of any analysis especially considering the lack of adequate characterization data in regards to the current existing contamination at Hanford.</p> <p>Any and all assessments/analysis performed for this EIS should disclose fully what has been analyzed and the full results of such analysis.</p> <p>Any site that is being proposed for burial of GTCC a comprehensive assessment must be performed, as example for Hanford, it must cover these other waste sites and future disposal of waste to the 200 Area/Central Plateau. In order to meet the requirements of NEPA the assessment of existing waste and the potential impact must include at a minimum:</p> <ul style="list-style-type: none"> • Related waste disposal activities outside the Project Hanford Management Contractor (e.g., ERDF) • Tank Farms releases and waste remaining in Single Shell Tanks • Wastes in related ancillary equipment and piping • Cribs, Ponds and Trenches in the Central Plateau • Pre-1970 potential Transuranic (TRU) wastes • Hazardous or mixed wastes buried in the Low-Level Burial Grounds, and releases from the burial grounds • Waste currently uncharacterized and stored in the PUREX tunnels • Wastes from dismantling and disposing of various facilities

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				<ul style="list-style-type: none"> • Wastes from dismantling the vitrification and treatment plants. • Plans by ORP to treat up to 750,000 gallons of tank waste as TRU mixed waste, eventually generating 20,000 drums (3,000 m³) of mixed TRU waste • The <i>Draft West Valley Waste Management Demonstration Project EIS</i> Alternative B that proposes sending 21,000 m³ total of LLW and MLLW for disposal, and TRU and High Level Waste (HLW) to Hanford for interim storage, are not included. • Total cumulative impacts for current and future wastes under the various alternatives • The condition of TRU containers in the LLBG • The inventories and associated impacts from chemicals known to be already land disposed (nitrates, carbon tetrachloride) • Failure to include all waste streams inventories and its associated impact from the huge amount of chemical known to be disposed at solid waste burial grounds (e.g. 6.2 tons of nitrate at solid waste burial grounds). • The dangerous waste in Low Level Waste (LLW) • DOE declares Irreversible and Irrecoverable Commitments of Resources violates State, Federal and the Trust Responsibility can not use this as a basis for minimizing dose. • Washington Administrative Code 173-340 requires groundwater be restored to the highest beneficial standards, which it defines as meeting drinking water standards. It further clarifies an aquifer is considered a drinking water source unless it meets a set of criteria which the Hanford aquifer does not meet. • Point of compliance for groundwater is directly under waste site, EIS can not use any arbitrary point away from waste site and fails to assess and disclose the short and long-term impacts to groundwater directly under the waste site which is the legal point of compliance. • Should acknowledge that the Nevada Test Site has also been designated to receive low-level waste (LLW) and mixed low-level waste (MLLW) from across the complex. The ROD should outline a process for determining which site has the least environmental and public health impact from waste disposal. • Must consider waste minimization, like compaction etc. • Must assess and disclose the long-term impacts from waste buried prior to 1970. • Fails to assess and disclose the short and long-term ecological impacts. Complete ecosystems must be assessed not just a few selected species. <p>The following documents and the data within, and the issues raised that are related to past failures or previous EIS's or assessments must be assessed in the GTCC-EIS. I have attached some of the following documents for your inclusion during your assessment.</p> <p>DOE-WM-PEIS DOE-SWEIS Hanford Central Plateau Ecological Risk Assessment Tank Waste Closure and Solid Waste EIS CRK's comments on Draft Environmental Impact Statement (EIS) for the Draft Hanford Site Solid (Radioactive and Hazardous) Waste Program. System Assessment Capability (SAC). The SAC Risk/Impact Module Columbia River River Corridor Baseline Risk Assessment Columbia River Comprehensive Impact Assessment Part I Columbia River Comprehensive Impacts Assessment Part II "The Requirements for a Columbia River Comprehensive Impact Assessment"</p> <p>Since this EIS is to meet the intent and requirements of NEPA it also must at a minimum meet the "The Requirements for a Columbia River Comprehensive Impact Assessment". A historical note, DOE in 1998 committed to using these requirements for</p>

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				<p>any and all assessments at Hanford. These requirements would be used as the “template” for all risk assessments. I have attached the appropriate minimum requirements.</p> <p>Public Involvement</p> <p>NEPA requires adequate time for the public to read and assimilate the information in an Environmental Impact Statement. Because of the proposed current timeline it is imperative that in your public involvement planning for the release of the Draft GTCC-EIS that you include adequate time for a full independent analysis by outside experts and the public. That public meetings be held around the country with at least 30 days notice of such meetings. That you use the Hanford Solid Waste EIS mailing list for notice being sent in regards to this EIS.</p> <p>Upon the release of this draft EIS, CRK requests that all citizen comments, questions and presentations at public hearings be responded to, and individuals who gave comments receives a written response. Both the question and answer sessions and alternative public interest viewpoint presentations were transcribed, and we request that they be included in the record, and responded to as comments. Where questions were not responded to accurately, or when USDOE was not able to respond to a question, USDOE should fully respond in writing.</p> <p>We appreciate the opportunity to comment on the scoping of this EIS. We strongly encourage USDOE to extend the timeline for this EIS because it will be technically impossible to meet the requirements of NEPA and rushing this EIS will only result in legal challenges.</p> <p>Sincerely, Greg deBruler</p> <p>Greg deBruler Columbia Riverkeeper Hanford Technical Consultant P.O. Box 912 Bingen, WA 98605</p>
117	Roger Turner Air Quality Manager Shoshone-Bannock Tribes PO Box 306 Fort Hall, ID 83203	Shoshone- Bannock Tribes Air Quality Office	9/21/2007	<p>The Shoshone-Bannock Tribes’ Air Quality Office appreciate the opportunity to comment on the scoping of the GTCC LLW EIS. We are very concerned about the contaminants in the soil and groundwater from past practices at these INL facilities, and the additional risks posed by the advent of storage of GTCC nuclear waste above the Snake River Plain Aquifer.</p> <p>The permanent homeland for the Tribes, the Fort Hall Reservation, lies just 40 miles from the Idaho National Engineering Laboratory (INL). The INL lands are within the aboriginal land area of the Shoshone-Bannock Tribes. The Tribes have used the land and waters within and surrounding the INL for fishing, hunting, plant gathering, medicinal, religious, ceremonial, and other cultural uses since time immemorial. These lands and natural resources provided the Tribes their home and way of life. When the Tribes signed the Treaty of Fort Bridger in 1868 with the United States, the Tribes protected their rights to subsistence and traditional activities on the unoccupied lands of the federal government, which includes the INL Site.</p> <p>The Reservation consists of approximately 544,000 acres of land, and is the homeland for more than 4,000 Tribal members. It is the center of the culture and government of the Tribes and is essential to the survival of the Shoshone-Bannock people. Since the creation of the INL Site, many activities there have damaged the land, and natural resources both on the Site and off-Site. The Tribes may be adversely affected by the possibility of shipping and storing Greater than Class C waste at the INL</p>

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				<p>Specific Comments</p> <p>The characteristics of the GTCC- LLW are very similar to TRU waste and as such the DOE should review their original decision for these types of wastes to be preferentially shipped to the WIPP facility. Most DOE facilities have the capacity to prepare these wastes to meet the Waste Acceptance Criteria (WAC) of WIPP, in New Mexico. It makes no sense for DOE to consider the INL as a repository for GTCC -LLW waste, when WIPP has the capacity and the infrastructure to handle these types of wastes. The draft EIS should carefully compare the additional costs of constructing a new disposal site, to the costs of simply preparing and shipping this waste to WIPP.</p> <p>The three types of GTCC wastes may not be required to be treated and stored in the same manner. For those wastes that are transuranic in nature....the natural, and most economical solution is to send it to WIPP. Consequently, we recommend that the draft EIS analyze and assess the “transuranic waste” fraction, separately.</p> <p>Some of the waste, may be better stored at DOE sites where they are generated until their short-term half lives have lessened their risks, whereupon they could be shipped to the nearest repository. The DOE should include in their assessments and alternatives, the use of hardened, secure, and retrievable storage vaults for such wastes. This would also support the storage of these wastes if there are <i>Hazardous Waste Permit</i> problems or other issues raised at WIPP, that may delay timely shipping of the GTCC wastes to New Mexico.</p> <p>Although the WIPP site should be the preferred repository for the waste, the draft EIS should include in the reported analyses, the permit requirements of WIPP, and other requirements for WIPP acceptance of this waste. If the DOE anticipates acceptance delays at WIPP, the Yucca Mountain repository should be assessed for receiving these wastes. Any delays in allowing GTCC waste to be shipped to either WIPP or Yucca Mountain, further support the need for retrievable, hardened, storage facilities at DOE sites until these National Repositories can accept the waste. We have concerns that DOE may construct a permanent repository at the INL, even if there is simply a short-term need for storage there. That is, we believe that the DOE needs to have an approved safe technology for temporarily storing GTCC waste, that can be retrieved for shipment to either WIPP or Yucca Mountain. We also believe this to be the most economical solution.</p> <p>DOE should carefully consider dropping the INL from consideration as a disposal site for GTCC waste. Long-term storage of GTCC waste at the INL poses an unnecessary risk to contaminating the Snake River Plain Aquifer, given the other more safe alternatives. DOE should re-visit the decisions that were made when WIPP was determined to be the best repository for TRU waste –because GTCC waste is so similar to TRU waste in its characteristics that it makes no sense to spend a great deal of money constructing a new repository, when WIPP has the capacity and built-in safeguards to accept this waste.</p> <p>Thank-you again for this opportunity to comment on this important EIS scoping of GTCC waste.</p> <p>Regards,</p> <p>Roger Turner, Air Quality Manager Shoshone-Bannock Tribes</p>
118	Alfred Meyer Program Director	Alliance for Nuclear	9/21/2007	This letter is to provide comments of the Alliance for Nuclear Accountability on the above cited Notice of Intent (NOI).

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	Alliance for Nuclear Accountability 322 4 th Street NE Washington, DC 20002	Accountability		<p>As the following comments detail, we ask that the scope of the Environmental Impact Statement (EIS) include:</p> <ul style="list-style-type: none"> • more specific definition of GTCC and GTCC-like waste and rules and regulations regarding any processes of concentration or dilution of waste materials that would affect its classification as GTCC or GTCC-like waste; • a more complete inventory of known and estimated amounts of Greater-Than-Class-C (GTCC) and GTCC-like wastes, particularly regarding potential waste from new nuclear weapons programs, new nuclear reactors and the proposed reprocessing activities of the Global Nuclear Energy Partnership; • consideration of the alternative of Hardened-On-Site-Storage (HOSS) both conceptually and with specific examples; • thorough definition of public health and environmental protection standards, monitoring and remediation plans; • specific information regarding transportation of waste including transportation containers, routes, accident projections and emergency response. <p>The following sections deal with these topics in greater detail.</p> <p>GTCC and GTCC-Like Waste Definition and Characterization</p> <ul style="list-style-type: none"> • What is the history of disposal of GTCC and GTCC-like waste? Where was such waste generated and what were its characteristics? How and where was it disposed of in the past? • How much total GTCC and GTCC-like waste is there currently? Is there any of this kind of waste that is not listed in the NOI? Please provide the total amount of GTCC and GTCC-like waste by state and by site, by radioactivity and volume. • Accurate characterization of what is being called “GTCC-like” (DOE) waste will be necessary before storage or disposal plans are considered. <ul style="list-style-type: none"> ○ The NOI states that DOE “does not have the effect or intent of creating a new classification of radioactive waste” by using the term “GTCC-like.” Until it is disclosed exactly what constitutes GTCC-like waste, how can we be sure that it should not be given a new classification? ○ Current definition includes such vague terms as “other miscellaneous waste owned by DOE or generated by DOE activities that has characteristics similar to GTCC LLW and may not have a path to disposal.” A more specific definition and characterization by source, form, volume, and radioactivity needs to be included in the EIS. ○ The NOI states that most DOE GTCC-like waste contains transuranic-contaminated materials. Assuming that NRC GTCC waste does not include transuranic material, why try to deal with these different wastes under one policy? <p>Known and Estimated Amounts of GTCC and GTCC-Like Waste</p> <ul style="list-style-type: none"> • Why do projections for GTCC and GTCC-like wastes go only to the year 2062 when DOE is promoting the potential for new reactors, new nuclear weapons and spent fuel reprocessing? If new nuclear reactors, new nuclear weapons, and new reprocessing activities as part of the Global Nuclear Energy Partnership are being promoted, then realistic estimates of the types and amounts of expected new wastes must be considered in this analysis. The basis for such estimates needs to be detailed along with ranges of potential amounts of waste. How will DOE analyze the waste from future programs? • How much waste is projected beyond the 2062? How much waste is expected beyond that date if 50 and/or the number of new

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				<p>reactors that DOE estimates are built and operated for the length of their licenses? Characterize such GTCC and GTCC-like waste, detailing the volumes, radioactivity and composition of these materials and in what forms they will be received and stored.</p> <ul style="list-style-type: none"> • What is the disposal path of material that may become GTCC or GTCC-like waste either through decay or blending activity? <ul style="list-style-type: none"> ○ What is the disposal path for waste items currently in cooling ponds (fuel assemblies and related material, not spent fuel itself) that may “cool down” to GTCC levels of activity? ○ Given the loose definitions of GTCC and GTCC-like waste, are there plans to include other kinds of radioactive waste under this classification – either through concentration or dilution so that it will be eligible for GTCC disposal? If so, what are they and what materials will or won’t be so treated? How does this work in relation to the Branch Technical Position on Concentration Averaging? ○ Are there prohibitions against treatment of waste to change its classification? <p>Hardened On-Site Storage & Other Alternatives</p> <ul style="list-style-type: none"> • Conceptually, what are the options available for hardened, on-site, above ground, monitored, retrievable storage of GTCC and GTCC-like waste? • Develop detailed plans for a hardened on-site storage (HOSS) facility to contain GTCC waste at a current operating nuclear facility like Plant Vogtle which has a water table near the surface. • For those sites where on-site storage is not feasible due to site-specific safety concerns, what are the conceptual options available for nearby and centralized above ground, hardened, monitored, retrievable storage of GTCC and GTCC-like waste? • Compare advantages and disadvantages, including cost estimates, of above ground storage versus underground storage. <ul style="list-style-type: none"> ○ Detail the engineering specifications and characteristics of above ground and below ground storage containers and/or engineered barriers that will last long enough to protect the surrounding environment for the length of time the waste is dangerous. ○ What materials are being considered for containers/barriers, and for what length of time will the containers maintain their integrity? • If Yucca Mountain is never licensed to receive spent nuclear fuel and high-level radioactive waste, what are the conceivable impacts upon the GTCC and GTCC-like waste disposal plans and options? • Provide a detailed description of what a generic commercial facility would be and what design and operational standards would have to be met and maintained. <p>Public Health and Environmental Protection Standards, Monitoring and Remediation</p>

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				<ul style="list-style-type: none"> • What standards will be employed to define contamination, and what remediation – and to what applicable standards - will occur if these standards are not fully met for the length of time that the waste remains dangerous? <ul style="list-style-type: none"> ○ In particular, address the health standards for exposure to radiation in terms of protecting the most vulnerable (a woman and her fetus), a ‘reference family,’ rather than the outmoded ‘reference man’ currently used as a standard. • For locations like the Savannah River Site and Plant Vogtle, how will disposal techniques ensure that ground water is protected from contamination? • Define in detail how each alternative will be monitored over the time that the radiation remains a threat to public health and the environment and what remediation will be available. <p>Transportation Containers, Routes, Projected Accidents, Emergency Response and Costs</p> <ul style="list-style-type: none"> • What are the transportation routes for Alternatives 2 – 5 from the NOI? What are the projected costs for transportation of all GTCC and GTCC-like wastes to the proposed disposal sites? What are estimated numbers of accidents, radioactive releases and public health and economic impacts there from on the areas along the transportation routes? • For transportation, what shipping containers would be used to transport GTCC & GTCC-like waste from production sites to proposed GTCC disposal sites? Do the containers currently exist, and if so, how many are there? What new containers or containers of different design would have to be designed and licensed, and what are the costs of such containers. Have the containers been tested in practice and/or by computer modeling? <p>We appreciate the opportunity to comment on the Notice of Intent. If you have questions, please contact me.</p> <p style="text-align: right;">Sincerely, Alfred Meyer Program Director</p>
119	Cindy Folkers cindy@beyondnuclear.org	Beyond Nuclear at NPRI	9/21/2007	<p>Thank you for the opportunity to present these comments on behalf of Beyond Nuclear at NPRI concerning the <i>Notice of Intent to Prepare an EIS for the Disposal of GTCC Waste</i>. In order to conduct a complete assessment, the Department of Energy must broaden its scope to include the issues we highlight in these comments concerning health assessment. We will follow this process to ensure public health and safety is supported and public participation is allowed throughout.</p> <p>DOE presents parameters for assessing health impacts in this proposed EIS in a fairly vague manner in one paragraph at the end of an informational sheet entitled <i>Radiation</i>. Here are the concluding remarks from this sheet:</p> <p>The main health concern associated with chronic exposure to radiation is the induction of various cancers. This is the health effect of concern for the GTCC LLW and will be analyzed in detail in the EIS. Additional health effects associated with exposures to radiation may include genetic mutations and teratogenic effects such as mental retardation, but these have not been directly attributable to specific radiation exposures. Acute doses can result in damage to blood-forming organs, the gastrointestinal tract, and the central nervous system, but such high doses would not be expected to occur during management of</p>

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				<p>the GTCC LLW.</p> <p>Chronic exposure to radiation leads to cancers. The National Academy of Science panel, BEIR (Biological Effects of Ionizing Radiation) VII states: “it is unlikely that a threshold exists for the induction of cancers...” DOE recognizes this in its brief statement above. We are pleased that DOE targets this disease endpoint and its variations for investigation in this EIS. We caution DOE to understand and account for the difference in cancer causation between adults, children, fetuses and the elderly. Some subpopulations are more vulnerable to an equivalent dose of radiation and we encourage DOE to use a reference family concept rather than reference man. We also encourage DOE to consider potential shortcomings in the reference family model in protecting the unborn and other vulnerable populations such as those who are immune compromised.</p> <p>However, there are other health effects, mental retardation and heart disease, to name two, which are linked to ionizing radiation and which DOE must investigate in its EIS.</p> <p>Regarding genetic mutation, this same NAS committee says “... there are extensive data on radiation-induced transmissible mutations in mice and other organisms. There is therefore no reason to believe that humans would be immune to this sort of harm.” See additionally the following study that shows genetic changes four generations after radiation exposure to the father, leading the researchers to conclude that this radiation exposure causes genomic instability:</p> <p>Baulch JE, Raabe OG. <i>Gamma irradiation of Type B spermatogonia leads to heritable genomic instability in four generations of mice.</i> Mutagenesis. 2005 Sep;20(5):337-43. Epub 2005 Jul 12.</p> <p>For research on low dose radiation exposure and mental retardation see a series of studies, , only one of which we reference below, by the following researchers. The full corpus of their work is listed on PubMed, the online Library database of the National Institutes of Health:</p> <p>Otake M, Schull WJ, Lee S. <i>Threshold for radiation-related severe mental retardation in prenatally exposed A-bomb survivors: a re-analysis.</i> Int J Radiat Biol. 1996 Dec;70(6):755-63.</p> <p>For investigation of heart disease DOE should see the following research conducted by different research teams:</p> <p>Matanoski GM, Sternberg A, Elliott EA. <i>Does radiation exposure produce a protective effect among radiologists?</i> Health Phys. 1987 May;52(5):637-43. This study clearly shows an increase in heart disease for radiology workers versus the control population.</p> <p>Schultz-Hector S, Trott KR. <i>Radiation-induced cardiovascular diseases: is the epidemiologic evidence compatible with the radiobiologic data?</i> Int J Radiat Oncol Biol Phys. 2007 Jan 1;67(1):10-8. Review. This article reviews a whole host of articles that show radiation exposure can cause heart disease.</p> <p>Bandazhevsky, Yu. I. <i>Changes in the Cardio-Vascular System of Children Residing in the Area Polluted by Radioactive Cesium</i> (unpublished). Finally, this research shows the effects of incorporated radionuclides from the Chernobyl explosion, particularly Cs-137. His research, to our knowledge, remains unpublished but we can supply copies. His findings also show deleterious effects on the nervous system, the eyes and other tissues and organs. Certain results he found in his research are supported in the published studies listed previously.</p>

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				<p>We feel strongly that, due to potential transport accidents and unintended intrusion into waste sites, DOE must investigate the impact of <i>acute doses</i> as well. We list here two such incidents that point to the necessity of such an assessment.</p> <p>In 1983 in Ciudad Juarez, Mexico, a "lost" radioactive source was deliberately ruptured scattering 6,000 1-millimeter pellets of cobalt-60 (totaling over 400 curies) throughout a scrapyard. This radioactive scrap was then distributed and converted into steel products, some of which were shipped to the US. The contamination went undetected until 1984 when a truck containing some of this material took a wrong turn at Los Alamos and set off radiation sensors. By the time the material had been tracked down and collected, a total of at least 10 individuals received significant exposures resulting in one fatality from bone cancer and 4 injuries known to date. For further info, please see:</p> <p>Bureau of Radiation Control, 2004, "Incident Investigation Program," on line, Texas Bureau of Radiation Control [http://www.tdh.state.tx.us/radiation/complaints.htm].</p> <p>Lister, B. A. J., Sept. 1985, "Contaminated Mexican steel incident," Journal of the Society for Radiological Protection, 5:145-147, on line [http://www.iop.org/EJ/toc/0260-2814/5/3].</p> <p>In September 1987, a radiation accident occurred in the city of Goiania in central Brazil. Approximately 250 people were exposed to a 137-Cs source brought into their midst by 2 junk scavengers. At least 14 patients showed bone marrow depression. Eight developed the classical symptoms of acute radiation syndrome, including vomiting, hair loss and skin reddening. Twenty-eight people presented local radiation injuries, and 104 individuals showed evidence of internal contamination. Four died.</p> <p>For further information see:</p> <p>Oliveria AR, Hunt JG, Valverde NJL, Brandao-Mello CE and Farina R: Medical and related aspects of the Goiania accident: An overview. Health Phys., 60: 17-24, 1991.</p> <p>AEA: Dosimetric and medical aspects of the radiological accident in Goiania in 1987. IAEA-TECDOC-1009, 2998.</p> <p>www-pub.iaea.org/MTCD/publications/PDF/eprmedt/Day_4/Day_4-18.pps</p> <p>Finally, DOE should consider not just exposure to human beings, but other beings as well. Radiation exposure affects all biological systems. Even at Chernobyl, where some claim the animal populations are now thriving, we see health impacts that point to an undercurrent of unrecognized effects on the animal kingdom. Further, these impacts mirror the human health impacts seen after this accident, many of which have been attributed, falsely, to psychosis. These animal studies point to radiation exposure and not the fear of radiation exposure, as the disease inducer. See a series of studies (one of which we reference here) by the following researchers:</p> <p>Møller AP, Mousseau TA, de Lope F, Saino N. <i>Elevated frequency of abnormalities in barn swallows from Chernobyl</i>. Biol Lett. 2007 Aug 22;3(4):414-7.</p> <p>More research by these authors on this topic can be found on the NIH PubMed site.</p> <p>As a final thought, we caution DOE not to repeat history. In <i>Late Lessons from Early Warnings: the precautionary principle 1896-2000</i> (European Environment Agency) the authors specifically elucidate past mistakes in radiation protection. The report recommends a precautionary approach that has heretofore been rejected in favor of a risk-based regime. Consider this statement</p>

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				<p>from <i>Late Lessons</i>:</p> <p>...although we have learnt much about the risks of radiation exposure in the last 100 years...we are still constantly having to react to new knowledge. For instance, the risk rate from radiation-induced cancer was perceived (by ICRP) as four to five times higher in 1990 as compared to 1977. This resulted in changes in dose limits but was a belated response to mounting incontrovertible evidence, a situation which has been a recurring theme in the history of radiation protection, where precaution has sometimes been lacking despite the clear warnings given from the discovery of radiation to the present day.</p> <p>Our scientific inability to provide precise predictions illuminates another difficulty: something <i>Late Lessons</i> calls “negative surprises” which include “complex, cumulative, synergistic or indirect effects”. Regulatory regimes should be humble enough that they have “a greater willingness to acknowledge the possibility of surprise.”</p> <p>If we do not act prudently, we will sacrifice a certain number of people who may be nameless and “statistically insignificant” yet who are human beings all the same. We risk causing the same or greater, long-lasting damage to other biological systems as well.</p> <p><i>Comments prepared by Cindy Folkers for Beyond Nuclear at NPRI. September 21, 2007. 6930 Carroll Avenue, Suite 400, Takoma Park, MD 20912. Phone: 301-270-2209. cindy@beyondnuclear.org.</i></p>
120	Joni Arends Executive Director, Concerned Citizens for Nuclear Safety 107 Cienega St Sante Fe, NM 87501	Concerned Citizens for Nuclear Safety	9/21/2007	<p>Concerned Citizens for Nuclear Safety (CCNS) make the following scoping comments for the Disposal of Greater-Than-Class-C Environmental Impact Statement (GTCC EIS).</p> <p>1. The Department of Energy (DOE) must consider the Hardened On-Site Storage (HOSS) Alternative. Congress told DOE to address the disposal of GTCC over two decades ago. Now that the public has the opportunity to provide comments, CCNS strongly urges DOE to analysis for HOSS. For more information about HOSS, please see the website of the Institute for Energy and Environmental Research (IEER) at www.ieer.org.</p> <p>2. The DOE must address the problems with the current storage of GTCC waste at Los Alamos National Laboratory (LANL). Whether within the GTCC National Environmental Policy Act process, or without, the issues surrounding the current storage of GTCC waste at LANL must be addressed. Currently, thousands of GTCC sealed sources are stored in containers in fabric tents at Technical Area 54 (TA-54). Over 12 years ago, these tents were set-up to store retrieved buried transuranic waste. The tents are located in a major wildfire area (witness the May 2000 Cerro Grande fire) and have not been properly maintained. For example, flame retardant has not been reapplied and the tents are ripped.</p> <p>DOE must make applying flame retardant to the tents a priority, as other required maintenance as noted by the Defense Nuclear Facility Safety Board. www.dnfsb.gov. CCNS urgently requests that DOE prohibit the shipment of new sealed sources for storage at LANL until the necessary maintenance is completed on the fabric storage tents. In the alternative, all sealed sources must be stored in buildings.</p> <p>3. LANL should not be considered for the burial of GTCC waste. There is currently over 18 million cubic feet of radioactive, toxic and hazardous waste buried at LANL. The LANL waste is buried in unlined pits, trenches and shafts in volcanic tuff. Liquid radioactive, toxic and hazardous waste is discharged into the canyon systems, which flow to the Rio Grande.</p> <p>Recently, plutonium-238 has been reported in one of Santa Fe’s drinking water wells. City of Santa Fe Water Division 2006 Water Quality Report. The New Mexico Environment Department (NMED) has reported plutonium in soils north of Santa Fe’s drinking water wells. http://www.nmenv.state.nm.us/doe_oversight/data/publications/Distribution%20of%20Radionuclides%20FINAL.pdf</p>

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				<p>In June 2006, DOE reported contaminants in the Los Alamos County and City of Santa Fe drinking water wells. Appendix F <i>Environmental Sample Data</i> of the draft 2006 Site-Wide Environmental Impact Statement for LANL. Further, although it is common knowledge that radionuclides are transported in groundwater on colloids, DOE stated that “[t]he role of colloids in transport of contaminants at LANL is largely unknown and uninvestigated.” <i>Id.</i>, p. E-27.</p> <p>LANL does not have the necessary groundwater monitoring network as required by DOE Order 450.1, which mandates such a network be in place by December 31, 2005.</p> <p>Further, in June 2007, the National Academy of Sciences stated, “[m]any if not all of the wells drilled into the regional aquifer appear to be compromised in their ability to produce water samples that are representative of ambient groundwater for the purpose of monitoring.” <i>Plans and Practices of the Groundwater Protection at the LANL</i>, p. 79. At the June 8, 2007 press conference releasing the report, the chair of the NAS panel, Larry Lake, stated that based on the information at hand, the only cleanup option at LANL was excavation.</p> <p>Given the facts that contaminants have been transported off-site, that LANL has not done the necessary work to investigate the role of colloid transport, that LANL does not have the required groundwater monitoring program and that the regional aquifer wells cannot provide reliable and representative samples as required by the Resource Conservation and Recovery Act (RCRA), no new waste should be considered for burial at LANL.</p> <p>4. The Waste Isolation Pilot Plant (WIPP) should not be considered for the disposal of GTCC waste. The agreement between DOE and the people of the State of New Mexico limited the type and volume of waste for disposal at WIPP to defense related transuranic waste. DOE must uphold its part of the bargain. DOE must withdraw any proposal for expanding the type and volume of waste for disposal at WIPP.</p> <p>Thank you for your careful consideration of our comments. Should you require additional information or have any questions, please contact me.</p> <p>Sincerely,</p> <p>Joni Arends, Executive Director Concerned Citizens for Nuclear Safety 107 Cienega Street Santa Fe, NM 87501 (505) 986-1973 jarends@nuclearactive.org</p>
121	<p>Jay Coghlan and Scott Kovac</p> <p>Nuclear Watch New Mexico 551 W. Cordova Rd, #808 Sante Fe, NM 87505</p>	Nuclear Watch New Mexico	9/21/2007	<p>We respectfully submit these scoping comments for the Greater Than Class C Environmental Impact Statement (GTCC EIS). The EIS proposes to evaluate potential alternatives involving various disposal methods for application at several DOE and generic commercial sites. DOE should broaden the scope of this EIS to a Programmatic EIS, thereby fulfilling DOE's obligations under the National Environmental Policy Act's (NEPA's) Rules and Regulations.</p> <p>We Argue for a Programmatic EIS for GTCC Waste Disposal</p> <p>We contend that disposal of GTCC waste is a “program,” defined by DOE under its NEPA regulations as systematic and connected</p>

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				<p>agency decisions allocating agency resources to implement a specific statutory program or executive directive. The federal government is responsible for the disposal of any low-level radioactive waste with concentrations of radionuclides that exceed the limit established by the Commission for Class C Waste, as per Section 61.55 of Title 10, Code of Federal Regulations (CFR). Therefore the statute-driven nature of the DOE GTCC waste disposal proposal is evident.</p> <p>Moreover, the GTCC EIS proposes to analyze differing conceptual disposal methods for multiple candidate sites (including generic commercial locations) to implement this plan. This strongly indicates that systematic and connected agency decisions will have to be considered in the GTCC EIS.</p> <p>The Council on Environmental Quality (CEQ), impaneled by NEPA, issued implementing regulations as part of the Code of Federal Regulations (CFRs) that all executive branch agencies had to incorporate. At 40 CFR 1502.4(a) the CEQ required that, "Agencies shall make sure the proposal which is the subject of an environmental impact statement is properly defined." At 40 CFR 1502.4(b) the CEQ stated, "Environmental Impact Statements may be prepared, and are sometimes required, for broad Federal actions such as the adoption of new agency programs (Sec. 1508.18). Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decisionmaking."</p> <p>Because of these CEQ requirements, DOE NEPA implementing regulation 10 CFR 1021.330(a) states, "When required to support a programmatic decision DOE shall prepare a programmatic EIS or EA." [Cites to two other statutes in 10 CFR 1021 omitted in this quote.] Given the CEQ NEPA regulations and the Department's implementing regulations, we argue that DOE is obliged to prepare and complete a programmatic environmental impact statement for GTCC waste disposal so that its proposal is properly defined and analyzed. Any subsequent Record of Decision should then select a disposal method or methods and a specific site or sites, and only then should a site-specific EIS or EISs go forward. In sum, this GTCC waste disposal environmental impact statement should be broadened to a programmatic environmental impact statement.</p> <p>The remainder of our comments apply to the PEIS that we think is required, to the site-specific EIS(s) we believe should follow a GTCC waste disposal PEIS and Record of Decision, and to the presently proposed EIS should DOE make the wrong decision to proceed with it. However, we reiterate our belief that a PEIS is required.</p> <p>All true alternatives for safe storage must be identified and analyzed</p> <p>DOE should reject in advance irretrievable disposal of GTCC wastes. Given potential future innovations that could provide safer disposal methods, or the discovery of greater risks at any one site than previously foreseen, it is necessary <i>ipso facto</i> that all disposal options be reversible. At a minimum, DOE must consider interim "Hardened On-Site Storage" (HOSS) at existing nuclear facilities as a real alternative (further discussion immediately below). Should DOE summarily reject HOSS, please explain why.</p> <p>Analyze Hardened On-Site Storage</p> <p>In our view, GTCC radioactive wastes should be safely stored as close to the site of generation as possible and be safeguarded in hardened, on-site storage facilities. HOSS facilities should be considered and analyzed from the perspective that these wastes must be zealously protected from risks posed by wildfire or other natural or man-made disasters. HOSS facilities must not be designed as permanent waste disposal solutions, and therefore should not be constructed deep underground. The wastes must be retrievable, and real-time radiation and heat monitoring at the HOSS facility must be implemented for early detection of radiation releases. The overall objective of HOSS should be that the amount of releases projected in even serious terrorist attacks should be low</p>

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				<p>enough that the storage system would be unattractive as a target to begin with. Design criteria must include resistance to severe attacks, such as a direct hit by high explosive or an aircraft loaded with fuel and/or explosives. Please explain why HOSS was not posed as an alternative in the Notice of Intent for the GTCC EIS. If HOSS is not analyzed in the draft GTCC EIS, please provide detailed reasons for its rejection.</p> <p>DOE should dedicate funding to local and state governments for independent Monitoring</p> <p>Funding for independent monitoring of the HOSS facilities at each site must be provided to local and state governments, with the right of review of that monitoring by the potentially affected public.</p> <p>Periodic review of HOSS facilities should be required</p> <p>An annual report reviewing the safety condition of each HOSS facility should be prepared with meaningful participation from public stakeholders, regulators, and utility managers at each site. A good summary of the report must be made publicly available and provide for possible recommendations for any needed corrective actions.</p> <p>Please list which proposed disposal methods will or will not work at which sites</p> <p>This GTCC EIS proposes “Enhanced Near Surface Disposal” and Intermediate Borehole Disposal” as solutions for GTCC waste disposal. Intermediate depth borehole disposal proposes drilling deep boreholes more than 30 meters in the ground. Enhanced near-surface disposal proposes the placement of the wastes in engineered trenches, vaults, or other similar facilities. Certainly, Enhanced Near Surface Disposal and Intermediate Borehole Disposal are not suitable for all sites. Factors such as depth-to-groundwater will inevitably eliminate some proposed disposal methods from some sites. Please list which proposed disposal methods will or will not work at which sites and why. Please analyze in detail all proposed disposal methods for all suitable sites, including depths of repositories and boreholes proposed for each site.</p> <p>Concentration averaging must be used transparently, if at all</p> <p>Concentration averaging is the method of reclassifying nuclear waste by averaging the radionuclides in the waste over the volume or mass of a container, usually a 55-gallon drum. DOE’s July 2007 “Greater-Than-Class C Low-Level Radioactive Waste And DOE Greater-Than-Class C-Like Waste Inventory estimates” report states that the amount of GTCC low-level waste (LLW) has decreased as a result of concentration averaging. Because the waste activity can be averaged over the disposal container, some GTCC waste will be allowed to be disposed of as Class A, B, or C LLW (Pg. 1-5). The NRC and DOE inventories were reduced by removing sources that would not exceed Class C concentration limits if the activity of an individual source was averaged over the volume of a 55-gallon drum (Pg. 3-5). Concentration averaging basically allows a higher waste to be diluted and disposed of as a lower class of waste.</p> <p>The Nuclear Regulatory Commission (NRC) has adopted the 1995 “Branch Technical Position on Concentration Averaging” and uses this report as the basis for concentration averaging in this report. Has DOE adopted the Branch Position? If not, how will this affect DOE’s GTCC-like waste?</p> <p>If concentration averaging is to be used, the pre-averaged amounts must be stated. The amounts of A, B, and C, waste which were originally GTCC before averaging must be stated.</p>

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				<p>Protect those most at risk</p> <p>Many federal radiation protection standards, such as limits on how much residual radiation will be allowed in contaminated soil, are based on "Reference Man." That is defined as a hypothetical adult "Caucasian" male who is 20 to 30 years old, 154 pounds in weight, five feet seven inches tall, and is "Western European or North American in habitat and custom." However, other groups, including women, children, and embryos/fetuses, are more sensitive to the harmful effects of radiation or toxic materials.</p> <p>The government's model for setting residual radioactivity standards for cleaning up radioactively contaminated sites (RESRAD) pictures a family on its front panel display, but its standard calculating model converts contamination to radiation dose only for "Reference Man." In the context of clean up and storage of nuclear waste at Department of Energy sites, the risk to a pregnant woman farmer, the fetus, and her children should be evaluated, rather than Reference Man. As a matter of principle, the most potentially vulnerable human beings should be protected, instead of Reference Man.</p> <p>Future GTCC Wastes</p> <p>How much waste is projected beyond the 2062? How much waste is expected beyond that date if 50 and/or the number of new reactors that DOE estimates are built and operated for the length of their licenses. Characterize such GTCC and GTCC-like waste, detailing the volumes, radioactivity and composition of these materials and in what forms they will be received and stored.</p> <p>The EIS must comprehensively address the long-term consequences of the complete future GTCC proposal.</p> <p>Future GTCC wastes from the proposed Global Nuclear Energy Partnership program are not included in projected GTCC inventories. How much GTCC waste will GNEP produce?</p> <p>The long-term costs of GTCC must be thoroughly analyzed.</p> <p>As government subsidies constitute the irretrievable commitment of taxpayers' dollars, analyses of all projected costs for the proposed GTCC waste disposal program and real alternatives to it must be front and center in the EIS.</p> <p>What is the comparison of costs of all the different proposed disposal alternatives (including hardened on-site storage)? Please calculate the costs of building each proposed disposal options at each proposed site, the transportation of waste, operating expenses, health costs for treatment of occupational illnesses and accident victims, and the costs of security of the facilities. Please compare that to the costs of not implementing the GTCC program. What will be the entire life cycle costs of the GTCC proposal?</p> <p>The Timeline for this EIS must be stated.</p> <p>The draft EIS must include a complete timeline for the GTCC proposal. This timeline must show the beginning and end of activities at all facilities in relationship to one another, including construction, material transfer, waste removal, operations, and the ultimate decontamination and decommissioning of all facilities.</p>

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				<p>The Future Activity of GTCC wastes must be estimated</p> <p>The total volume of wastes being addressed in this EIS is estimated to be about 5,600 m3 containing about 144 million curies of activity. The total volume of GTCC waste is relatively small; however, the GTCC wastes contain very high levels of activity.</p> <p>The draft EIS must project volumes and curie-counts of future GTCC wastes for the next 500 years. These amounts could accelerate rapidly because of the so-called nuclear renaissance.</p> <p>Monitoring of the GTCC facilities must be specified in the EIS.</p> <p>Details should be included on how environmental, safety and security monitoring will be performed and who will do it. The costs of monitoring must be included in the cost of the project.</p> <p>All socioeconomic impacts to potentially affected communities must be analyzed.</p> <p>How many jobs will be generated? How long will these jobs last? Will people be brought in from outside of the area to work at these facilities? If so, what positions will they fill? Impacts to tourism must be analyzed. Impacts to property values must be analyzed. All of these must be analyzed for all options at all sites.</p> <p>Disposal of GTCC radioactive wastes should be the starting point for public discussions of nuclear reactor decommissioning and proposed future reactors, not an afterthought.</p> <p>Much of the future GTCC wastes will be the reactor parts themselves that won't enter into the waste streams until the 2060's. Reactor decommissioning is a tough problem. Do we wait 100 years for the radioactivity to decay away? That leaves an abandoned, contaminated site where no one will take responsibility. Should they be entombed? More broadly, are more nuclear power plants worth the expense and intractable waste problems that taxpayers will inevitably be required to pay for? It is imperative that DOE analyze these issues because they have direct impact on the future generation of GTCC radioactive wastes. Please use this EIS as a starting point for discussion on the future of nuclear power.</p> <p>Please post the transcripts of the public scoping meetings on your website. The American public has a right to read and understand the full range of public debate.</p> <p>Please make all reference documents available to the public on your website as soon as possible</p> <p>In order for the public to make meaningful and informed comments on the draft EIS, all reference documents must be available when the comment period on the draft begins. In our experience, the cited reference documents form the baseline foundation for all DOE NEPA processes, but yet the Department is often negligent in making those reference documents available in a conveniently accessible and modern fashion.</p> <p>DOE should analyze possible GTCC waste treatment alternatives, such as vitrification. Encasing GTCC wastes in glass may reduce their risks to the environment and public health. If vitrification or other waste treatment alternatives are dismissed, please explain why.</p> <p>Do not bring more nuclear waste to the Hanford Nuclear Reservation</p>

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				<p>The Hanford Site is included for consideration in the EIS. Senator Ron Wyden (D.-OR) said it all when he stated, “My point here is a simple one. DOE has not fulfilled its obligation to clean up Hanford. It’s not clear when it will. But now, DOE is proposing to bring more waste to Hanford – this time in the form of waste from commercial nuclear power plants, medical wastes and other nuclear processing facilities...Hanford should have less nuclear waste, not more. It should be cleaned up, not dumped upon. So, today, I am putting myself on the record as being fiercely opposed to DOE’s plans to dump more waste at Hanford and I will do everything in my power to fight to keep it from happening.” In sum, Hanford should be rejected as a potential disposal site for GTCC wastes.</p> <p>Do not bury sealed sources and other GTCC wastes at the Los Alamos Laboratory LANL has collected around 15,000 sealed sources from across the country that are currently being stored above ground at the Lab’s radioactive waste dump, Area G. The final disposition of Area G, in operation since 1957 but now being forced to close by the New Mexico Environment Department, has yet to be determined. Hopefully the existing buried hazardous and radioactive wastes will be exhumed and removed. The GTCC EIS should analyze a location at LANL for a HOSS facility instead of continuing to bury nuclear waste at Los Alamos.</p> <ul style="list-style-type: none"> • Senator Jeff Bingaman (D-NM) has stated, "It's clear to me that LANL is not an ideal location for this type of 'enhanced near-surface facility' especially given that DOE does not yet have a complete understanding of the geological formation on which the lab rests." Even Senator Pete Domenici (R-NM) has stated, "This would not be a good fit for Los Alamos' mission." We assert that LANL should also be rejected as a potential site for GTCC waste disposal because that conflicts with the New Mexico Environment Department’s cleanup order. <p>Do not bring GTCC to the Waste Isolation Pilot Plant (WIPP) This would require changing the Land Withdrawal Act over what WIPP can accept and opens the site up to commercial waste, which is and should remain prohibited. As it is, WIPP cannot accommodate all the wastes that DOE has now planned for it, let alone new waste.</p> <p>Yucca Mountain should not be considered as a possible site for GTCC wastes disposal since its suitability for any radioactive waste disposal is still not known. Additionally, Yucca Mountain’s potential capacity is already exceeded by presently projected volumes of high-level radioactive wastes.</p> <p>DOE should clearly specify exactly what is GTCC Please specifically state what is and what is not included in the term “Greater Than Class C.” For instance, are all Radioisotopic Thermal Generators (plutonium-238 batteries for spacecrafts) considered GTCC? Is storage tank sludge from plutonium reprocessing such as at the Hanford Nuclear Reservation considered GTCC? Are smoke detectors containing radioactive alpha emitters considered GTCC? Please explain why the above are or are not considered GTCC. This EIS must provide a concrete definition of what GTCC radioactive wastes actually are.</p> <p>The draft EIS must be specific concerning disposal methods Several disposal options for GTCC wastes are being evaluated in the EIS. Intermediate depth borehole disposal proposes to drill boreholes deeper than 30 meters into the ground. The wastes are then to be placed in the boreholes up to about 30 meters from the surface, and the remaining space filled with clean soil. What then is the total depth to the bottom of the borehole? Is there a maximum borehole depth being</p>

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				<p>considered? What is the minimum distance from the bottom of the borehole to the water table?</p> <p>Enhanced near-surface disposal proposes the placement of the wastes in engineered trenches, vaults, or other similar facilities. Please provide drawings of engineered trenches, vaults, other similar facilities, barriers, deeper depth to disposal, enhanced waste packaging, and boreholes. Please list which proposed disposal methods, or combination of methods, will or will not work at which sites.</p> <p>Please be specific when analyzing GTCC impacts DOE states it intends to evaluate the issues listed below while considering the potential impacts of proposed disposal alternatives. Our comments follow DOE language (quoted here in italics).</p> <ul style="list-style-type: none"> • <i>Potential environmental impacts including air, noise and water quality.</i> All GTCC waste disposal considerations must stringently minimize the use of and be stringently protective of our precious water resources in New Mexico. Please list all mitigations measures needed for all proposed sites and all unavoidably adverse environmental impacts. • <i>Potential transportation impacts from the shipment of GTCC LLW and DOE GTCC-like waste to the disposal site(s).</i> Please specify f the potential transportation impacts of shipping waste from each existing GTCC site to each of the proposed disposal locations. Please specify how many shipments would occur by truck, train, or barge. Specify how many shipping containers would be needed, their costs, and whether they already exist or whether new containers would have to be developed and manufactured. • <i>Potential impacts from postulated accidents.</i> Any and all facility and transport accidents must be considered in the GTCC proposal. We request that all accident scenarios be explored. Please provide written protocol and procedures for emergency responders within a 50-mile radius of all accidents analyzed. Moreover, when GTCC waste disposal proposals pertain to National Nuclear Security Administration sites (such as LANL), we believe that it is required that DOE should consult with the Defense Nuclear Facilities Safety Board. • <i>Cumulative impacts from past, present and reasonably foreseeable actions.</i> <input type="checkbox"/> Please address cumulative impacts on the 50-mile radii surrounding DOE facilities and missions. In New Mexico, this would include Sandia National Laboratories, current operations at the Los Alamos National Laboratory (LANL), planned expanded operations at LANL and future activities contemplated under “Complex 2030” (the future nuclear weapons complex that DOE wants). Possible nuclear operations under the “Global Nuclear Energy Partnership” must also be included. Please be specific about potential impacts to water, air and soil, environmental justice, transportation, economics (including tourism), emergency preparedness, and waste generation. • <i>Intentional destructive acts.</i> What will the potential impacts be from an accident or terrorist attack at a GTCC site? What emergency response services are going to be available should this happen? What will be the impacts of an accident or attack during transportation? What emergency response services are going to be available should this happen? How will the GTCC EIS address new security requirements from Design Basis Threats analyses? Any and all possible terrorism attacks must be considered. Specifically state the weights, velocities, and general parameters used in each analysis. Please include an analysis of possible terrorist attacks on the GTCC facilities and transport of the nuclear waste.

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				<p>In conclusion The treatment and handling of GTCC wastes must be protective of human health and the environment for many tens of thousands of years. Analyses to do so are not only best done in a programmatic environmental impact statement, but we argue are required to be done in a PEIS. DOE must consider storage of GTCC waste as interim until improved safe methods of disposal are discovered. Out-of-sight, out-of-mind permanent burial must not be considered just because no other method is now known. The relatively small volumes but high activity level of GTCC wastes make it an ideal issue in which to seriously consider hardened on-site storage. We urge DOE to do so.</p> <p>We support safe, monitored storage of radioactive wastes as a matter of national security and environmental protection. However, that should not be interpreted as support for more nuclear weapons, nuclear power, or the generation of more nuclear wastes. In our view, the best way to treat radioactive wastes is to not produce them to begin with.</p> <p>Sincerely, Jay Coghlan Scott Kovac Nuclear Watch New Mexico 551 W. Cordova Rd., #808 Santa Fe, NM 87505 Phone and fax: 505.989.7342 www.nukewatch.org</p>
122	Don Hancock Southwest Research and Information Center PO Box 4524 Albuquerque, NM 87106	South-west Research and Informa-tion Center	9/21/2007	<p>Southwest Research and Information Center (SRIC), a nonprofit organization with more than 35 years experience in working on nuclear waste issues, submits these comments in response to the Department of Energy (DOE) Notice of Intent Prepare an Environmental Impact Statement (EIS) for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste. 72 Federal Register 140, pages 40135-40139, July 23, 2007.</p> <p>SRIC's conclusions are that:</p> <ol style="list-style-type: none"> 1. The Notice of Intent (NOI) fails to comply with the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, <i>et seq.</i> 2. The NOI fails to comply with the requirements of Section 631(b) of Public Law 109-58, the Energy Policy Act of 2005. 3. Therefore, DOE must withdraw the NOI, and instead, issue a NOI for a Programmatic Environmental Impact Statement (PEIS). <p>The basis for those conclusions follow, along with a brief discussion of information and analysis that must be included in the PEIS.</p> <p>1. NEPA requires preparation of a PEIS because DOE needs a program for the management and disposal of significant quantities of radioactive waste.</p> <p>DOE has not prepared an environmental impact statement (EIS) covering Greater-Than-Class-C Low-Level Radioactive Waste (GTCC waste), and it must do so before decisions about disposal are made. Congress, obviously frustrated by 20 years of DOE inaction in addressing its responsibilities for GTCC waste, mandated: "a report containing an estimate of the cost and a proposed schedule to complete an environmental impact statement and record of decision for a permanent disposal facility for greater-than-Class C radioactive waste." Public Law 109-58, Section 631(b)(1)(A). That same Public Law provides incentives for new nuclear power plants, which would produce additional amounts of GTCC waste, so any GTCC EIS should consider the alternative disposal facilities necessary for the existing and projected GTCC wastes for at least a century. The NOI does not include that full inventory, as it discusses only the projected GTCC wastes from existing commercial nuclear facilities. In addition, unless the Global Nuclear Energy Partnership (GNEP) is abandoned, as SRIC advocates, GTCC wastes from proposed GNEP facilities must be included in the potential inventory for GTCC waste disposal facilities.</p> <p>The NOI also states that "DOE owns and generates [other wastes] that may not have a path to disposal." NOI at 40136, c. 1. Such</p>

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				<p>waste is not GTCC waste and has not been analyzed in an EIS, as it must be before disposal decisions are made. Thus, DOE's purpose and need is apparently to examine several types of wastes that can be managed and disposed in various ways over a period of many decades. Such a purpose and need falls clearly within the bounds of when a programmatic EIS is required. Such a PEIS is necessary so that DOE, Congress, and the public are aware of the environmental impacts and range of alternatives that should be considered in making decisions about such wastes.</p> <p>2. A PEIS must consider different alternatives than those described in the NOI.</p> <p>The NOI "technology" alternatives are geologic disposal (at Yucca Mountain or WIPP), intermediate depth borehole disposal, and enhanced near-surface disposal. Neither in the NOI nor in other technical documents has DOE provided adequate information about the latter two alternatives. While they may be reasonable technology alternatives, DOE should issue a technical document describing those technologies and the criteria for identifying safe disposal sites for the technologies prior to issuing an NOI. Such criteria would include, for example, geologic and hydrologic characteristics, engineering requirements, needed buffer zones required from affected populations, environmental justice, and transportation requirements.</p> <p>The alternative of Hardened On-Site Storage (HOSS) must be included in the PEIS. The "Principles of Safeguarding Nuclear Waste at Reactors" (attached) are primarily focussed on irradiated fuel, but are also applicable to GTCC waste. Such HOSS facilities would protect spent fuel and GTCC wastes for decades from severe attacks, including aircraft direct hit or terrorist attack, as well as from other events. The wastes would be stored in robust containers. The wastes would be continuously monitored, including independently by state or local governments, and the safety of the facility would be periodically reviewed through a public process. Thus, HOSS facilities must be examined in the PEIS as a long-term storage alternative that would affect the number and type of disposal facilities that would be needed.</p> <p>Regarding alternative sites, it is inappropriate to consider DOE sites as the primary locations for disposal of GTCC wastes. The DOE sites all have significant quantities of waste that must be managed essentially forever, and they do not have the capability to do so. Thus, DOE's first priority for those sites should be to provide for adequate management and long-term storage of DOE wastes. While geologic disposal at Yucca Mountain and WIPP (the only currently planned sites) should be included in the PEIS analysis, both sites should be rejected as GTCC disposal facilities. The amount of irradiated fuel and high-level waste that will be created will far exceed Yucca Mountain's capacity, even in the unlikely event that it is licensed and operates, since there are severe technical problems that disqualify the site. The amount of defense transuranic waste will exceed WIPP's capacity and the radioactivity in GTCC waste is many times more than the total amount of radioactivity to be disposed at WIPP, so the site could not safely dispose of such waste. In addition, existing law also prohibits commercial waste at WIPP. Thus, neither Yucca Mountain nor WIPP are reasonable disposal alternatives for GTCC wastes. If geologic disposal is to be considered a reasonable alternative, the PEIS should include an analysis of the need for additional geologic disposal facilities.</p> <p>Since about 80 percent of the radioactivity shown as needing disposal in table 1 of the NOI is from GTCC waste, commercial facility sites should be the primary alternatives for GTCC disposal. When the additional GTCC wastes from the proposed new nuclear power plants are included, the percent of GTCC wastes from commercial sources will be even more predominant. Thus, for example, the locations for proposed nuclear power plants must be considered alternative sites for HOSS and disposal for irradiated fuel and GTCC wastes. Existing nuclear power plant sites should be analyzed for HOSS and disposal sites. For any site, the cumulative impacts of existing and other potential activities, must be included in the analysis of the impacts of GTCC waste storage and disposal.</p> <p>3. <u>DOE's wastes that may not go to Yucca Mountain or WIPP should be identified and alternative storage and disposal options and their environmental impacts must be analyzed in the PEIS.</u></p> <p>For many years SRIC has supported the need for a comprehensive analysis of storage and disposal of all DOE wastes. SRIC does not support calling them "GTCC-like wastes," since that is a meaningless and inaccurate term that should be eliminated from future</p>

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				<p>use in the PEIS. DOE should either use its existing waste classifications or have a public process to develop new classifications. The comprehensive analysis should include wastes that cannot go to WIPP (such as commercial waste and defense transuranic waste in excess of WIPP's capacity or that otherwise do not meet the WIPP Waste Acceptance Criteria or the WIPP Land Withdrawal Act (PL 102-579, as amended) requirements) and other wastes with no disposal path. The volumes and characteristics of such wastes, both existing and projected, should be fully discussed and documented, along with the many uncertainties and assumptions about those wastes. What to do with such wastes should be considered programmatically, as the public and decision makers need to be aware of the scope of the problem, the environmental impacts, and reasonable alternatives for long-term storage or disposal.</p> <p>4. <u>Transportation impacts must be fully analyzed in the PEIS.</u> Except when wastes would be kept at the site, transportation from the existing generation/storage sites to any and all proposed disposal sites must be fully analyzed. The number of shipments, alternative transportation methods, and the need for new and additional shipping containers must be discussed, along with potential shipping routes and methods.</p> <p>5. <u>Life cycle costs must be adequately analyzed in the PEIS.</u> An adequate PEIS requires life cycle cost estimates, and the public and decision makers need to be aware of the enormous costs of long-term storage and disposal facilities. For each of the alternatives, the PEIS should fully describe the basis for cost estimates, along with the numerous uncertainties in all such estimates. The costs of transportation must be included in the analysis, including the potential costs of responding to major accidents during transportation.</p> <p>6. <u>Regulatory requirements of the various alternatives must be fully discussed in the PEIS.</u> GTCC wastes must be disposed in facilities licensed by the Nuclear Regulatory Commission (NRC). SRIC also agrees that DOE should be subject to external regulation and that DOE waste should be disposed in licensed facilities. However, such a regulatory regime is not currently in place. WIPP is not licensed by the NRC. DOE sites, except for Yucca Mountain, are not subject to NRC licensing. Thus, the PEIS must discuss how NRC licensing would be ensured for all of the storage and disposal alternatives, including discussion of statutory changes required. For example, changes to the Atomic Energy Act must be discussed.</p> <p>SRIC's comments and those of all other persons must be fully considered. If DOE adequately considers those comments, it will withdraw the NOI and instead proceed with developing a program and a PEIS that covers wastes for which DOE is responsible in a comprehensive way. Developing and implementing an adequate program will be a decades long, technically and politically challenging task. DOE has delayed too long in developing the program and the PEIS. It should not waste its time and resources, nor those of the public, in continuing on the course as described in the NOI.</p> <p>If you have any questions, please feel free to contact me at (505) 262-1862.</p> <p>Sincerely, Don Hancock</p>
123	Penelope McMullen Sisters of Loretto 113 Camino Santiago Sante Fe, NM 87501	Loretto Community	9/21/2007	<p>The Loretto Community submits the following Scoping Comments regarding the Department of Energy's proposal for disposing of Greater-Than-Class-C (GTCC) waste.</p> <p>Our main concern is that the proposal does not include the Hardened On-Site Storage (HOSS) alternative which the Loretto Community urges the DOE to seriously consider in its draft Environmental Impact Statement. All possible options should be considered because the GTCC waste is the most radioactive form of Low-Level Waste (LLW) and will be dangerous for hundreds of years, and therefore needs to be handled in a way that is safe and secure for many generations. Safe, monitored storage of radioactive wastes is a matter of security, both protecting from terrorist attacks and protecting the environment upon which future</p>

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				<p>generations depend.</p> <p>The HOSS alternative needs to be thoroughly analyzed. The HOSS has many advantages:</p> <p>As its title indicates, the waste under HOSS would be kept in hardened storage, which would be much safer than current storing practices (DOE's first alternative), until a scientifically sound solution to the problem of waste storage is found or created. The hardened HOSS waste storage facilities would ensure that the waste will not be affected by fire or other man-made disasters. Because of its safe containment, any attempt to attack by a terrorist group would not be worth the trouble.</p> <p>Storing the waste on or near its current site allows the waste to stay where it is for now, rather than rushing to dump the waste in its current unsafe condition into unsafe and irretrievable storage. Waste dumped in the Waste Isolation Pilot Plant facility (WIPP), in Yucca Mountain or at Hanford would not be retrievable if the site proves to be unsuitable for such highly radioactive waste. Storing the waste in deep underground boreholes would also be irretrievable. In addition, any deep underground storage could not be monitored for such problems as leakage.</p> <p>Once a scientifically sound solution for depositing the waste has been developed, the HOSS waste will be able to be retrieved, which will not be possible under DOE's proposed alternatives. The hardened condition of the waste will greatly reduce the risk of accidents or potential terrorist attacks during transportation.</p> <p>There are many problems with the alternatives that DOE proposes. DOE must clarify what wastes will be included under the GTCC category and which will not.</p> <p>All of the options would not be retrievable, including #1, which could seep into the ground. DOE must explain with each option how they will deal with problems such as leakage. DOE should analyze any cost and potential harm involved in shipping GTCC waste in its current condition and provide that information in the draft EIS.</p> <p>Burying the waste using Near-Surface Disposal would allow the possibility (and probability) of leakage of contaminated materials under the dump, and covering the waste with dirt is obviously not a safe alternative. The specific sites being considered for Geologic Repository Disposal are not viable options:</p> <p>The Los Alamos National Laboratory (LANL) has a history of leaks, mistakes and security breaches, -- not a safe environment for the most radioactive form of LLW. Area G is unlined and the New Mexico Environment Department (NMED) is in the process of deciding which of the waste there needs to be removed -- it makes no sense to dispose of LLW waste in a site that is already seriously compromised. In addition, LANL has not completed the cleanup of the existing waste that was mandated by NMED. The waste at LANL needs to be cleaned up before any new waste is even considered.</p> <p>The Loretto Community requests that DOE look at the current storage of GTCC at LANL. Storing such waste in fabric tents above ground in a major wildfire zone is not safe. DOE must take steps now to provide HOSS storage for existing GTCC waste at LANL.</p> <p>Bringing the GTCC waste to WIPP violates existing federal law regarding what WIPP can accept and would also require a changing the Land Withdrawal Act. Opening it up for commercial waste would go against the agreement between DOE and the people of NewMexico that WIPP would contain only waste from nuclear weapons production, with the requirement that WIPP would not be changed to allow a different category of waste.</p> <p>Hanford is already horribly contaminated with waste from as far back as the 1940s, and like LANL, needs to be cleaned up, not</p>

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				<p>dumped upon.</p> <p>There are about 5,600 cubic meters of nuclear waste that the DOE does not know where to store permanently. Some of that waste comes from decommissioning nuclear power plants. Since finding a way to store this waste is so problematic, the DOE should make their proposal only for existing waste, not for future waste from nuclear power plants. Promising a storage solution before one is safely constructed would encourage the nuclear industry to continue building and operating a system that will create more waste. No more waste should be created until every aspect of the problem of disposing of it is completely solved.</p> <p>Nuclear energy is not really “clean” because of the pollution and CO2 that is released during the process of developing nuclear power. Instead, the energy industry needs to work to develop renewable and sustainable energy sources available for everyone.</p> <p>The Loretto Community awaits a draft EIS that will include all the requirements listed above.</p> <p>Sincerely, Penelope McMullen Sisters of Loretto 113 Camino Santiago Santa Fe NM 87501</p> <p>505-983-1251 pmsl@cybermesa.com</p>
124	Claes Lindberg President, SKB International Consultants AB P.O. Box 5185 102 44 Stockholm Sweden		9/21/2007	<p>In an international spirit, I am herewith pleased to offer you access to our comprehensive experience and database from the development, design and operation of the underground low- and intermediate-level radioactive waste disposal facility (the SFR facility) in granitic rock at the Forsmark site north of Stockholm (picture and layout of the facility is attached). The facility is owned and operated by SKB, a company jointly owned by the Swedish nuclear power utilities.</p> <p>SFR has a capacity of 63,000 cbm of mainly short-lived waste and receives annually about 1,000 cbm of waste from power plants and from industry, hospitals, research (sealed sources etc.). SFR will now be expanded to 150,000 cbm to accept also decommissioning waste. The facility consists of caverns and a large bentonite-lined silo for the most active waste (surface dose rate of packages up to 500 mSv/h).</p> <p>The facility has been in safe operation since 1988 and the related database includes more than 20 years of regulator-reviewed site characterization, design, construction, waste acceptance criteria, waste handling, facility operation, safety/performance assessment, waste transportation, environmental monitoring, and public interaction information. This database is particularly well suited to a disposal site in a humid environment.</p> <p>Additional top-level information is available on our web page (http://www.skb.se). Please contact me (claes.lindberg@skb.se) or our Senior Vice President, Mr. Hans Johansson (hans.johansson@skb.se) if you need any clarification or additional information.</p> <p>We wish you success in your pending effort and look forward to the opportunity to support the pending EIS effort if deemed of benefit to success.</p> <p>Sincerely, Claes Lindberg, President</p>

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125	Angela Crowley-Koch Executive Director, Oregon Physicians for Social Responsibility 812 SW Washington St., Suite 1050 Portland, OR 97205	Oregon Physicians for Social Responsibility	9/21/2007	<p>Oregon Physicians for Social Responsibility is disappointed in the DOE's current scope for disposal of Greater than Class C (GTCC) waste and are submitting the following as public comment.</p> <p>PSR is concerned that DOE is not providing communities surrounding potential GTCC sites with enough information on the potential human health and life risks that could come with living near GTCC storage sites. PSR strongly urges DOE to include Hardened On-Site Storage (HOSS) as an alternative on the Environmental Impact Statement (EIS). HOSS would allow long-term storage of GTCC wastes so that they can be monitored and retrieved until a better solution is found. In most cases, HOSS would eliminate the need to transport nuclear waste around the country and would thereby protect the health of multiple communities from unnecessary risk. In addition, many sites, including Hanford, do not have the capacity to safely accept more waste at their site, making HOSS a better alternative.</p> <p>In order to determine the appropriateness of a proposal, a realistic study needs to be completed of each site. It is unacceptable that the DOE only plans to study an "arid" site and a "humid" site. Each proposed site varies in terms of groundwater tables, above-ground water, geography and local tectonics. Every community has the right to know what method of disposal is being suggested for their site and the environmental and health impacts of that proposal. At the GTCC public comment hearings, Christine Gelles from the DOE admitted that the enhanced near surface method would leak nuclear waste into groundwater if used at several of the proposed sites. This is unacceptable. The DOE should include specific studies for specific sites in the EIS. If the public is not given scientifically relevant facts, they cannot give science based comments.</p> <p>If HOSS is not used, the EIS needs to include projected transportation routes, methods and costs in addition to the public health costs and accident projections. In addition, the DOE should include the public health and financial savings if no additional waste were to be produced. The EIS should not only deal with the present GTCC problem but should also determine the cost benefits of preventing future GTCC waste.</p> <p>The current scope of the EIS does not include an accurate estimate of future GTCC waste. If the Global Nuclear Energy Partnership (GNEP) program proceeds as planned, waste from GNEP reprocessing should be included in the GTCC estimate. At the Oregon GTCC public hearing, the DOE official admitted that most of the DOE GTCC waste was reprocessing waste. To exclude a large potential contributor to GTCC waste is misleading and will have serious consequences in the future. Since GNEP waste is not included in the current scope of the EIS, it provides one more reason for the GNEP program to be discontinued. The EIS scope should also include full life cycle costs and waste estimates, not just until 2062. The EIS should incorporate all current plans for new nuclear weapons, GNEP and new power plants, specifying types and amounts of waste. The EIS should include all waste projected after 2062.</p> <p>Regional players need to be included in the proposals. At Hanford, the Washington Department of Ecology should be allowed and have designated funding to monitor all sites. The Oregon Department of Energy should be allowed and have designated funding to review all transportation plans.</p> <p>DOE should inform surrounding communities of the possible health risks associated with low-level doses of radiation from GTCC storage facilities. Foreseeable contamination from a GTCC storage facility, into the air and ground water, could expose surrounding communities to low levels of radiation. Low doses of radiation (exposures under 10 rem) are less predictable than high doses of radiation, the effects are not immediately visible, and involve the cancerous transformation of cells. Seven reports prepared by the National Research Council's Committee on Biological Effects of Ionizing Radiation (BEIR), published since 1956, examine possible health risks associated with exposure to low-level radiation. The most recent committee report (BEIR VII) calculated the</p>

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				<p>expected cancer risk from a singular exposure of 0.1 Sievert (equivalent to 10 rem and 40 times the average yearly background exposure). The committee found that in a lifetime approximately 42 out of 100 people will be diagnosed with cancer and one cancer out of these 100 people could result from a single exposure to 0.1 Sv of low-LET radiation above background. There is still a lack of scientific certainty over what level of radiation exposure leads to cancer, mostly due to the difficulty in proving a casual link between a specific radiation exposure and adverse health effects. However, agreement that there is <i>likely</i> a risk to human health when humans are exposed to more low-level radiation is enough of a reason to keep communities surrounding potential GTCC storage sites well informed of possible hikes in radiation exposure.</p> <p>The radiation exposure risks need to be estimated for those who do not fit the “Reference Man” profile. Radiation risks are currently calculated for a “Reference Man” that is white, aged 20-30, and lives in a climate with an average temperature of from 10 to 20 degrees Celsius. This method of estimating risk is scientifically inaccurate. It neglects to calculate the specific risks to children, women of child bearing age, all non-white people, the elderly and anyone living outside this average temperature range. Since a majority of people living near the proposed sites and along the relevant transportation routes would fit into the above excluded categories, the standard for calculating health risks from radiation must be reconfigured for the EIS.</p> <p>Communities surrounding possible GTCC sites should also be informed of the risks to human life that storing radioactive wastes could bring. For example, enhanced near-surface disposal involves the placement of wastes in engineered trenches, vaults, or other similar facilities. A terrorist attack on such a disposal facility would cause massive amounts of radiation into surrounding communities. There is also the potential for terrorist to target the vast amounts of radioactive waste shipments traveling across the country. Citizens have the right to know what types of risks to their lives are being taken.</p> <p>It is unacceptable to have vague terms such as “other miscellaneous waste owned by DOE or generated by DOE activities that has characteristics similar to GTCC LLW and may not have a path to disposal.” PSR believes that communities surrounding potential GTCC storage sites need to have clarification of all types of wastes that could be stored near them. Without more specific information on source, form, volume and radioactivity, the public cannot accurately examine the proposals with out this information. Communities surrounding proposed sites should also be informed of which method of disposal is being suggested for their site. It also appears that the letter “r” standing for radioactive was left out of the acronym. The acronym in all DOE documents should be GTCC LLRW.</p> <p>In conclusion, there are several key items which should be included in the GTCC LLRW EIS, the most important of those being a HOSS alternative, an accurate estimate of future waste, accurate studies of the proposed sites, public health costs, an accurate definition of the waste and an accurate standard for assessing health risks. Oregon Physicians for Social Responsibility expects to see these items included in the draft EIS.</p> <p>Sincerely,</p> <p>Angela Crowley-Koch Executive Director Oregon Physicians for Social Responsibility 812 SW Washington St. Suite 1050 Portland, OR 97205 Ph: 503-274-2720 FAX: 503-222-5348 www.oregonpsr.org</p>

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126	Marylia Kelley Executive Director, Tri- Valley CAREs	Tri-Valley CAREs	9/21/2007	<p>Tri-Valley CAREs (Communities Against a Radioactive Environment) submits the following "scoping" comments pursuant to the Department of Energy (DOE) Notice of Intent (NOI) to Prepare an Environmental Impact Statement (EIS) for the Disposal of Greater Than Class C (GTCC) Low Level Radioactive Waste.</p> <ol style="list-style-type: none"> 1. It is of concern to us that "Greater Than Class C Low Level Radioactive Waste" has not been fully defined. The EIS must include a more specific definition of wastes that will (and will not) be included in this class. 2. The phrase "and GTCC-like waste" likewise prompts concern. What is the full and complete definition of "GTCC-like waste"? What is the DOE's rationale for including what appears to be a somewhat vague quasi-category? 3. Related to the above-definition deficiencies, how is DOE going to ensure that GTCC and GTCC-like do not become "catch all" categories that will lead to disposal of wastes not presently contemplated by DOE. Such vagueness is a serious issue that could render the pending EIS functionally useless and legally inadequate. 4. The DOE reports that the volume of wastes to be addressed in the EIS is estimated at 5,600 m3 containing around 144 million curies of radioactivity. Yet, it is unclear if there are other wastes not presently contemplated that could or will become GTCC or GTCC-like in the future due to blending, treatment and/or decay. The EIS must address each of these and other feasible scenarios, detailing in each how "category creep" will be prevented (or accommodated). 5. The DOE GTCC and GTCC-like waste projections go out to 2062. Given that present DOE plans, including but not limited the Global Nuclear Energy Partnership and Complex 2030, may result in major increases in GTCC and GTCC-like wastes in the long-term future, shouldn't the waste projects in the EIS be extended to 100 years? If the DOE disagrees, the full discussion and justification should appear in the EIS. 6. The EIS should consider reactor decommissioning that may result in GTCC or GTCC-like wastes after 2062. 7. Related to the above comments, the GTCC EIS should be clear about which proposed programs (and what assumptions about them) are included in its waste projections and which ones are not -- and why. Again, it is of concern to Tri-Valley CAREs that the real, actual wastes that become categorized as GTCC or GTCC-like may exceed the parameters of analysis being proposed at present by DOE. 8. Additional, feasible options for GTCC and GTCC-like wastes should be fully explored in the EIS. In particular, hardened on-site storage (HOSS) at or near the waste generation points should be examined. Such facilities should be constructed to facilitate monitoring and retrieval, if necessary, of the wastes to prevent their migration in the environment. Further, in addition to engineering/construction considerations, the volume and curies of wastes placed in each HOSS facilities should be managed in such a way as to minimize the facility's utility as a terrorist target. It is of concern to Tri-Valley CAREs that HOSS is not included in the NOI. We believe analysis of HOSS options is particularly important because we do not think the methods outlined in the NOI -- enhanced near surface disposal and intermediate borehole disposal -- are likely to be sufficiently protective of the environment in (at least) some locations. 9. Related to comment 8, above, different long-term storage and/or disposal options for different locations should be analyzed in the EIS. For example, if DOE believes a particular generation point is not a feasible location for a HOSS, that should be discussed and DOE's rationale fully explicated. Similarly, if the depth to water table makes intermediate borehole disposal infeasible at a particular location, that should be examined with specificity in the EIS. The most likely scenario is that one size will not fit all. And, therefore, one option will not fit all either.

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				<p>8. The EIS should not limit its risk and health considerations to "reference man," which is a hypothetical mid-20ish male, 154 pounds, 5'7", and "Western European or North American in habit and custom." Instead, more sensitive and/or impacted populations, including pregnant women and their fetuses, young children, the elderly, people with immune system disorders, and Native Americans who eat a traditional diet off the land should all be considered. Health protection should be considered on the basis of the most vulnerable among us.</p> <p>9. The DOE should consider whether the appropriate NEPA review may be a Programmatic Environmental Impact Statement rather than an EIS. On its face, a PEIS seems reasonable. GTCC is a connected action and involves multiple sites, for example. If the DOE determines that an EIS by itself is the appropriate NEPA pathway, then the Department should fully explain its rationale in the EIS and consider public comment on it.</p> <p>9. The GTCC public scoping comments should be placed on the DOE web site. When the draft EIS is released, it too should be placed on the DOE web site -- and all reference documents used in its preparation should likewise be accessible and available on the same DOE web site.</p> <p>10. The GTCC draft EIS, like other technical and complex DOE EIS', should have a minimum 90 day comment period.</p> <p>Please include Tri-Valley CAREs in your public notification on the GTCC issue. We would like to receive 2 CD ROMs (or similar) of the draft EIS (or PEIS). Further, we would like to receive 10 copies of the draft document's summary. Please advise us as well of upcoming hearings and/or any other decisions involving GTCC wastes and/or the NEPA process.</p> <p>Thank you for this opportunity to comment.</p> <p>Marylia Kelley Executive Director, Tri-Valley CAREs</p> <p>Marylia Kelley, Executive Director</p> <p>Tri-Valley CAREs 2582 Old First Street Livermore, CA 94551</p>
127	<p>E-mail from: amargosa@aol.com</p> <p>attached letter from: Bill Helmer Tribal Historic Preservation Officer Big Pine Paiute Tribe of the Owens Valley PO Box 700 Big Pine, CA 93513</p>	Big Pine Paiute Tribe of the Owens Valley	9/21/2007	<p>This letter provides scoping comments for the above Notice of Intent.</p> <ul style="list-style-type: none"> • Consultation <p>Government-to-government consultation for the project was inadequate. The Big Pine Paiute Tribe was not contacted at all for the Advance Notice of Intent for the project in 2005. We belatedly received notice of the July 23, 2007 Federal Register announcement in mid-August, 2007. There was no time to prepare for face-to-face meetings with DOE representatives, and there were no public hearings scheduled in our area. I have spoken with you, Mr. Joyce, about improving consultation, and you were very receptive. However, when I called the Office of Regulatory Compliance today, you and everyone else except the receptionist were not in the office. On such a matter of national importance, there must be someone at your office to answer questions for tribal governments as well as the general public. This level of consultation does not meet the standards set forth in DOE's American</p>

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				<p>Indian and Alaska Native Tribal Government Policy. Please correct this as the process for the proposed project continues.</p> <ul style="list-style-type: none"> Proposed Alternatives <p>Alternatives 3, 4, and 5 propose that the GTCC radioactive waste be stored in some form at either Yucca Mountain or the Nevada Test Site, among other proposed locations. The Big Pine Paiute Tribe is strongly opposed to GTCC radioactive waste storage at either Yucca Mountain or the Nevada Test Site. Radioactive waste stored at Yucca Mountain would harm the environment as well as desecrate sacred lands. The Nevada Test Site is still contaminated from nuclear weapons testing, and allowing more poisonous substances to be stored on this land would be insane.</p> <p>We have become informed about another alternative for the proposed project which should be considered in the DEIS: "Hardened On-Site Storage" (HOSS). This method of radioactive waste storage has been convincingly advocated by the Institute for Energy and Environmental Research (IEER) and other safe energy organizations. HOSS would allow long-term storage of GTCC wastes so that they can be monitored and retrieved until a better solution is found. As it stands now, DOE is proposing only permanent, irretrievable disposal in all of its alternatives. Alternatives for the proposed project should also include a plan for reducing or phasing out GTCC radioactive wastes, as well as all types of dangerous radioactive waste.</p> <p>Sincerely, Bill Helmer Tribal Historic Preservation Officer Big Pine Paiute Tribe of the Owens Valley</p>
128	Dennis A. Bechtel 319 Encima Court Henderson, NV 89014	None Given	9/21/2007	<p>The following are comments on the <i>Notice of Intent to Prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste (NOI)</i>.</p> <ol style="list-style-type: none"> The proposed high-level waste repository at Yucca Mountain is listed as one of the candidate sites for Greater-Than-Class-C (GTCC) waste disposal. Since Yucca Mountain is truly a hypothetical facility given, a) for various reasons the uncertainty of whether the site will be licensed, and b) the certainty of legal challenges. There are many indicators to suggest that Yucca Mountain will not even open. Yucca Mountain, therefore, does not seem to be a realistic alternative for the disposal of the GTCC and should be removed from the list of potential future sites. Even if Yucca Mountain does open it could be argued that since the nation's spent commercial nuclear fuel and high-level radioactive defense waste will be disposed there, to interject equitability into the disposal process, GTCC should be disposed of elsewhere. On Page 40135 a number of sites and potential facilities are listed as possible candidate sites for GTCC disposal. The alternatives being examined on Page 40138 suggest that a centralized disposal facility is being contemplated. The EIS should, however, also consider the selection of multiple sites for disposal. Multiple sites would seem to provide more flexibility as a final disposal option. The EIS needs to incorporate the specific criteria that will be employed in assessing and selecting alternative sites. It should be clear to the public and others (who may have to live with the decisions) why the site(s) for disposal were selected. Potential sites should be identified based on objective and relevant criteria (e.g., geohydrologic data, surface hazards present, etc.). Table 1. (<i>Inventory Summary Of Estimated Quantities of GTCC LLW and DOE GTCC-Like Waste</i>) provides estimates of GTCC and related waste (23 July and 31 July correction). The table needs to be augmented, however, by description of the sources of the data estimates and some sense of the accuracy of the estimates, present and future. Why are these important

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				<p>concerns? For a number of years I was on a committee advising DOE on issues associated with weapons site cleanup. The estimates of low-level radioactive waste varied considerably over the years. Estimates of GTCC that are too low may understate the extent of the number of shipments that will be transported, which may require different strategies. Knowing where the waste is being stored is also important (even having regional estimates would be meaningful, to minimize security concerns). If most GTCC is stored in the eastern U.S., for example, it may be less cost-effective to transport the waste to Yucca Mountain, the NTS (or even sites in New Mexico) than to dispose of the waste at sites closer to where the waste is generated. Given the fact that the Nuclear Regulatory Commission (NRC) has indicated that the nuclear reactor sites and other facilities have adequate security arrangements, placing the GTCC at an eastern site(s) would reduce transportation costs and also provide a safe environment for disposal (to meet national security concerns).</p> <p>5. In addition to the list of environmental issues noted on Page 40138 other possible impacts that need to be considered in the EIS include negative effects to local economies, impacts on property values, etc., due primarily to the transport of the waste. These concerns are often lumped together by the government as "public perception" issues that are unquantifiable and will dissipate once the public better understands (through education by experts) that little or no risk is involved. There are, however, an increasing number of court decisions and studies that affirm that impacts (including monetary) have resulted from activities with the potential for causing "stigma" effects. While not presupposing that these impacts will occur it is nevertheless important that risk perception/stigma-related impacts be considered in an EIS. Moving GTCC waste as has been the case with other radioactive waste shipments (e.g., Santa Fe, NM, Charleston, SC) will create controversy. The Santa Fe/Charleston examples cited resulted in measurable impacts from stigma. Incorporating study of these potential impacts in an EIS may serve to make DOE more sensitive to these issues and, where appropriate, take steps to avoid possible negative effects (e.g. consider alternative transport routes). Not addressing these issues, again, where appropriate, could result in an incomplete evaluation of impacts.</p> <p>6. The EIS must include a comprehensive description of waste transportation issues. All impacts associated with the transportation of GTCC must be fully assessed (refer also to paragraphs 4 and 5). Issues that should be evaluated in an EIS(s) include 1) the characteristics of the GTCC and similar waste, 2) the risks posed during transport (e.g., accidents, layovers), 3) the types, characteristics and documentation associated with shipping containers to be used for the various modes of shipment (highway, rail, barge), 4) routing issues, including the identification of preferred and alternative routes from generator/storage sites to proposed disposal locations, 5) issues associated with sabotage or terrorism against GTCC shipments (e.g., tracking of vehicles, escorts); and, 6) radiological and non-radiological impacts to people and communities located along GTCC shipping routes, including, to reiterate, socioeconomic, and stigma-related impacts.</p> <p>7. DOE in the EIS needs to describe how the selected disposal site(s) will be monitored over the period of the radioactive risk. This should include an examination of issues such as groundwater monitoring and procedures to be employed to monitor GTCC shipments in transit.</p>
129	Tony Guzman 731 South 300 East Apt. B302 Salt Lake City, UT 84111	None Given	9/21/2007	<p>Please consider these comments as part of your Notice of Intent (NOI) to prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste (GTCC).</p> <p>Analyze hardened on-site storage (HOSS) We commend the Department of Energy (DOE) for acknowledging in the NOI the new and emerging threats posed by terrorism and deliberate or accidental attacks at nuclear facilities. We therefore urge the DOE to analyze the potential and impact of safeguarding GTCC waste in hardened, on-site storage (HOSS) facilities. A thorough HOSS analysis would ensure that GTCC waste is not subject to risks posed by wildfire or other natural or man-made disasters. HOSS facilities must not be regarded as a permanent waste solution, however, and thus should not be constructed deep underground. A HOSS design would allow the waste to be retrievable, and monitored in to detect any early radiation releases. A HOSS design would further reduce if not eliminate the</p>

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				<p>need to transport GTCC thousands of miles across the country to a designated GTCC waste facility. Although not relevant to this NOI, a HOSS strategy is also applicable to High-Level waste storage. The overall objective of HOSS should be that the amount of releases projected in even severe attacks should be low enough that the storage system would be unattractive as a terrorist target. Design criteria must include resistance to severe attacks, such as a direct hit by high explosive or an aircraft loaded with fuel and/or explosives.</p> <p>A HOSS analysis is imperative considering the 9th Circuit Court's decision in June of 2006 that required the Nuclear Regulatory Commission (NRC) to consider the environmental impacts of intentional attacks on the proposed dry cask storage installation at Diablo Canyon Nuclear Power Plant.</p> <p>This analysis should be considered as in addition to the No-Action alternative. That is, this specific HOSS analysis will reduce long term costs and immediately increase safety at nuclear waste storage facilities in order to find a viable solution to GTCC disposal.</p> <p>For more information on HOSS, please visit, http://www.ananuclear.org/Portals/0/documents/GTCC/thompsononHOSS.pdf</p> <p>Periodic review of HOSS facilities should be required Once HOSS facilities are implemented, there should be annual reports reviewing the safety condition of each HOSS facility that includes meaningful participation from public stakeholders, regulators, and utility managers at each site. The reports must be made publicly available and may include recommendations for actions to be taken, if necessary.</p> <p>DOE should dedicate funding to local and state governments for independent monitoring Funding for monitoring the HOSS facilities at each site must be provided to affected local and state governments. The affected public must have the right to fully participate and have the adequate resources to do so.</p> <p>Do not consider the proposed Yucca Mountain High-Level Waste repository as a disposal site for GTCC I contend that it is premature and irresponsible to even begin to consider Yucca Mountain as the repository for GTCC. The proposed Yucca Mountain facility is not yet licensed and is mired in technical and legal delays which may lead to Yucca never opening. There exists an abundant amount of evidence that clearly identifies Yucca Mountain as an inadequate facility for High-Level waste, let alone GTCC.</p> <p>Considering Yucca Mountain at this stage is also highly suspect and disrespectful to the State of Nevada. As your office is considering a site for GTCC waste, the Office of Civilian Radioactive Waste Management within the DOE is blatantly disregarding state and federal law by using the state's water for further site characterization of Yucca Mountain. There exists no trust among the public of Nevada for the DOE being able to carry out Yucca Mountain or any type of nuclear waste facility. We strongly urge the DOE to immediately remove Yucca Mountain as a potential site for this reason, among others.</p> <p>DOE should clearly specify exactly what GTCC is It should specifically state what is and what is not included in the term "Greater Than Class C." For instance, are all Radioisotopic Thermal Generators (plutonium-238 batteries for spacecrafts) considered GTCC? Is storage tank sludge from plutonium reprocessing such as at the Hanford Nuclear Reservation considered GTCC? Are smoke detectors containing radioactive alpha emitters considered GTCC? Please explain why the above are or are not considered GTCC.</p> <p>DOE should analyze possible GTCC waste treatment alternatives, such as vitrification (encasing them in glass). Pre-treatment of GTCC wastes could possibly lessen disposal volumes.</p> <p>Analyze transportation impacts</p>

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				<p>DOE should specify each site that has GTCC and the transportation impacts of shipping waste from each site to each of the potential disposal locations. Specify how many shipments would occur by truck, train, or barge. Specify how many shipping containers would be needed, their cost, whether they already exist or whether new containers would have to be developed. And, most importantly, the proposed routes these shipments would take to any or all of the proposed facilities. Full disclosure regarding transportation would help the DOE regain a modicum of trust among the public that has been left out of the transportation impact discussion.</p> <p>DOE should make clear what role the Nuclear Regulatory Commission will play in the siting of a GTCC waste facility It is clear in the NOI that DOE will be responsible for locating GTCC radioactive waste disposal/storage facilities and managing their construction and operation. However, it is unclear if the Nuclear Regulatory Commission (NRC) will have to license these GTCC facilities.</p> <p>Relationship to the Global Nuclear Energy Partnership The DOE must include in the EIS how specifically the GNEP proposal would impact the volume and classification of future GTCC waste. DOE should consider the waste streams GNEP would generate and what the proposed GTCC waste facility would accept, if any.</p> <p>Nuclear power expansion impacts The DOE should consider two alternative relating to nuclear power expansion. One alternative should look at if nuclear power retains its share of the commercial U.S. energy production (currently 20%) for the next 50 years. A second should consider an alternative where all current reactors are decommissioned at their planned license end date and those licenses are not extended. As legitimate concerns regarding Global Warming increase, nuclear power is unfortunately being seen as an alternative or even solution to the Global Warming crisis. The EIS for disposing of GTCC waste should fully consider how the expansion or phasing out of nuclear power generation over the next 100 years would impact the volume of GTCC LLW waste and, in general, exacerbate an already difficult disposal problem.</p> <p>Relationship to the Complex 2030 proposal Earlier this year, the National Nuclear Security Administration within the DOE unveiled a major plan to renovate the nuclear weapons complex. This proposal includes the manufacture of a new nuclear warhead, the Reliable Replacement Warhead and a massive reinvestment into the nuclear weapons production infrastructure. I urge the DOE to include in the EIS how the Complex 2030 proposal would impact the siting of a GTCC waste facility. Specifically, what, if any, new waste streams would be created and the estimated volumes a whole new nuclear weapons production complex would impact the GTCC waste facility proposal.</p> <p>NOI inadequate in describing the near-surface facility alternative The EIS must fully explain how the Near-Surface facility would be sited, built, and maintained. Many questions arise regarding this alternative including: the depth of the boreholes, would the boreholes be lined, the impact and potential of water contamination, and how past and potential future underground nuclear weapons testing at the Nevada Test Site would impact this alternative? This is especially serious considering the fact that NTS remains on alert and capable of resuming underground nuclear weapons testing within as little as a 24 month period.</p> <p>Disposal of GTCC radioactive wastes should be the starting point for public discussions of nuclear reactor decommissioning and proposed future reactors, not an afterthought. Much of the future GTCC wastes will be the reactor parts themselves that won't enter into the waste streams until the 2060's. Reactor decommissioning is a tough problem. Do we wait 100 years for the radioactivity to decay away? That leaves an abandoned, contaminated site where no one will take responsibility. Should they be entombed? More broadly, are more nuclear power plants worth the expense and intractable waste problems that the taxpayer is expected to pay to solve? It is imperative that DOE analyze</p>

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				<p>these issues because they have direct impact on the future generation of GTCC radioactive wastes. Support for safe, monitored storage of radioactive wastes is a matter of security and environmental protection. As such, it should not be interpreted as support for more nuclear weapons, nuclear power or the generation of more nuclear wastes.</p> <p>Conclusion I understand and recognize the difficulty in siting any nuclear waste disposal facility. The most important goal, in our contention, should be to have full and total public involvement in the decision-making process. DOE must make every effort to solicit as much public comment and involvement as possible at every stage. Public hearings should be as numerous as possible and as convenient to attend as possible and should not be limited to only proposed GTCC waste facilities. They should also include sites along the proposed waste transportation routes and at sites that already store GTCC wastes. Hearings should also be formatted in a way to facilitate public involvement. DOE should consider inviting non-governmental experts to discuss the environmental, economic, and political impacts of the GTCC waste disposal.</p> <p>Thank you for your consideration. If there are any questions regarding these comments, please contact tg5110@hotmail.com.</p> <p>Sincerely,</p> <p>Tony Guzman 731 South 300 East Apt. B302 Salt Lake City, UT 84111</p>
130	Abigail C. Johnson Nuclear Waste Advisor Eureka County, Yucca Mountain Information Office P.O Box 990 Eureka, NV 89316	Eureka County, NV	9/21/2007	<p>Eureka County, Nevada, is an “affected unit of local government” under Section 116 of the Nuclear Waste Policy Act as amended. We are pleased to provide the following comments on DOE’s July 23, 2007, Notice of Intent to Prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste.</p> <p>Our interest in the Notice of Intent focuses on the potential use of the proposed high-level waste repository at Yucca Mountain as described in the Notice.</p> <p>Background</p> <p>Of the five alternatives proposed for evaluation in the NOI, sites in Nevada are featured in three. Alternative 3 would have disposal take place at the potential high-level nuclear waste repository at Yucca Mountain. Alternative 4 includes disposal in a new enhanced near-surface facility, possibly located at the Nevada Test Site. And Alternative 5 includes disposal at a new intermediate depth borehole facility, possibly located at the Nevada Test Site.</p> <p>The status of Yucca Mountain</p> <p>The federal government is still years away from determining whether Yucca Mountain is geologically and technically suitable, safe, and able to be licensed for the disposal of spent nuclear fuel and high-level radioactive waste. The same uncertainties about the Yucca Mountain site apply to its use for GTCC waste disposal. Similarly, many of the same conditions that bring into question the safety of Yucca Mountain are also present at the NTS (i.e., active seismic area; fast groundwater pathways; potential for renewed volcanism; highly corrosive subsurface environment; etc.). In addition, there are serious issues with cumulative impacts to the environment from past weapons testing activities and resulting contamination and current and planned low-level and mixed-low-level waste disposal activities.</p>

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				<p>Alternative 3, involving Yucca Mountain, is not a realistic alternative for consideration in the planned EIS. Under DOE's current most optimistic schedule, it will not be known whether a Yucca Mountain repository is permitted to accept spent nuclear fuel and high-level radioactive waste until at least 2017. The Nuclear Regulatory Commission license, if granted, would require amendment to accept GTCC and GTCC-like waste. This alternative assumes that Yucca Mountain will be licensed as a repository and creates a potential conflict of interest for both the NRC, which will be a commenting agency for the GTCC EIS, and the EPA, which will be a cooperating agency (p.40136). EPA has yet to complete setting the environmental, safety and health standards for a Yucca Mountain repository, and NRC has yet to finalize its rules for evaluating a DOE application for a repository license at Yucca Mountain. NRC must rule on whether the EPA standard will be met if DOE submits a Yucca Mountain license application.</p> <p>Alternative 3 assumes that the Nuclear Waste Policy Act, as amended, authorizes the use of a Yucca Mountain repository for disposal of GTCC and GTCC-like waste. While the 2002 Yucca Mountain EIS considers these wastes in one of its options for extended use of the repository if the statutory capacity limit is repealed or increased, it does not explicitly consider the question of statutory authority for disposal of these wastes at Yucca Mountain.</p> <p>As a downwind county during the nuclear weapons tests at the Nevada Test Site, Eureka County is very concerned about the possible aftereffects. The EIS must include a comprehensive cumulative impacts analysis of all related activities in the area, and discuss the potential for resulting contamination from past activities.</p> <p>Lifecycle Costs</p> <p>The EIS should identify the estimated lifecycle costs for each of the alternatives evaluated. Given the long-term hazards to human health and the environment posed by GTCC waste, DOE should demonstrate the true long-term costs for maintaining in-perpetuity control of a single disposal site and/or multiple sites considered for GTCC wastes and potentially other "high activity" low-level wastes managed by DOE.</p> <p>Regulatory issues must be resolved</p> <p>By law, a GTCC facility must be regulated by the NRC. Inclusion of DOE's GTCC-like wastes that currently are managed under DOE Orders and stored at DOE facilities that operate under DOE Orders, will require that they be brought into the NRC regulatory regime. This is not a simple process, as evidenced by the high-level waste program where the decision was made to co-mingle commercial and defense waste. Resolution of waste characterization, institutional, and security issues should be described in the EIS. The EIS should describe how an NRC-regulated facility can co-exist with a DOE self-regulated facility, or an EPA/state regulated facility, such as WIPP, and how the public can be assured that the NRC regulatory authority has primacy at the GTCC facility.</p> <p>Transportation of GTCC Waste</p> <p>Any NEPA analysis addressing disposal of GTCC waste must thoroughly describe the transportation of such waste from generator/storage sites to proposed disposal facilities. All impacts associated with such transportation must be fully assessed including considering these shipments cumulatively in addition to the other types and quantities of shipments destined for each location under consideration.</p> <p>Conclusion</p> <p>We continue to see the proposed nuclear waste repository at Yucca Mountain considered in plans and documents as if it is already approved and operating. Yet the federal government is still many years away from that becoming a reality. We believe</p>

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				<p>that it is premature to consider the proposed Yucca Mountain repository as a solution for more kinds of waste when it has yet to be proven or licensed for its primary mission.</p> <p style="text-align: center;">If you have questions, please contact me.</p> <p>Sincerely,</p> <p>Abigail C. Johnson Nuclear Waste Advisor</p>
131	Diane D'Arrigo Nuclear Information and Resource Service 6930 Carroll Avenue, Suite 340 Takoma Park, Maryland 20912	Nuclear Information and Resource Service	9/21/2007	<p>Comments submitted 9-10-07 at Washington DC hearing Corrected and Additional comments 9-21-07 to gtccis@anl.gov 3 pp.</p> <p>In the United States so-called "low-level" radioactive waste is a broad category of radioactive waste generated from the nuclear power and weapons fuel chain, generally including most radioactive waste other than the irradiated fuel rods from reactor cores, the high level radioactive liquid and sludge from reprocessing those rods and the solid into which that liquid and sludge are [hopefully] converted.</p> <p>In the quest for so-called "low-level" radioactive waste dumps, which by federal NRC regulation only require 100 years of institutional control, common sense began to filter up to Congress. The public demand has been that wastes hazardous longer than those 100 years be reclassified as high level radioactive waste. Since that would have required reclassifying most of the "low-level" waste in the country, the compromise was struck, requiring DOE, rather than states, to be responsible for the most extremely concentrated portion of "low-level" radioactive waste.</p> <p>Class A, the least concentrated still has plutonium and other deadly, long-lasting transuranic wastes in it, as does the more concentrated Class C. Class B has unlimited amounts of tritium and cobalt and high concentrations of other biologically important and dangerous radionuclides.</p> <p>Radioactive wastes with concentrations Greater than Class C (GTCC) were to be managed by the Department of Energy, essentially punting off part of the troubled "low-level" radioactive waste problem from the industry that generates it to the federal government.</p> <p>DOE responsibility for GTCC— ANOTHER FEDERAL SUBSIDY FOR NUCLEAR POWER Essentially the US state and federal governments are subsidizing nuclear power –existing and proposed new reactors -- by taking on the costs and/or responsibility for the commercial radioactive wastes generated. Federal taxpayers are footing the bill for the long term care of high level radioactive waste and the states in cooperation with compacts have actively assisted in the development of new dumps for so-called "low-level" radioactive wastes. No new "low-level" nuclear dumps have opened so creative efforts are underway to deregulate or reclassify as much of the radioactive waste as not radioactive and "clear" it into commercial recycling to make everyday household and industrial use items and to send it to solid and hazardous waste dumps that were never envisioned to isolate radioactive materials. Numerous federal agencies are supporting this publicly and Congressionally rejected policy.</p> <p>Now DOE, as mandated, is taking a look at what to do with the hottest of the so-called "low-level" radioactive wastes, some of which can give a lethal dose in just minutes if unshielded.</p>

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				<p>The general public and those concerned with radioactive waste dumping have uniformly called for treating the long-lasting, highly concentrated wastes from nuclear power as HIGH LEVEL WASTE. We in no way consider Yucca Mountain a suitable radioactive waste site so are not advocating that specific high level waste option but we ARE demanding that long lasting GTCC and other “low-level” radioactive wastes be managed as high level wastes, in conditions meeting the requirements for high-level waste.</p> <p>We oppose processing that would allow for deregulation and recycling of the radioactive wastes including radioactive metals. We oppose the dilution and concentration averaging that would allow the wastes to go unlined soil trenches that are already inadequate to isolate classes A, B and C.</p> <p>We insist that <i>until</i> there is an adequate, proven way to isolate GTCC from the environment for as long as it remains hazardous that no future GTCC should be generated from new facilities or from operating facilities that can close to prevent creating more. Specifically new nuclear power reactors will generate more GTCC for which we have no solution. GTCC is NOT subject to the (untenable) waste confidence decision NRC claims exists for high level radioactive waste, so DOE and the nuclear utilities cannot pretend a solution will be found. There is no facility or plan for a facility to manage, store and dispose of GTCC for as the length of its hazard.</p> <p>DOE and the Congress to whom the DOE will report, must pay attention to both hands: The federal government cannot, on one hand, promote new nuclear power and weapons facilities that will generate more GTCC radioactive waste, while on the other hand proposing to dispose of it at already-leaking “low-level” or DOE weapons nuclear waste sites, all of which are in need of greater cleanup and isolation.</p> <p>What is needed is precaution...a halt to new nuclear power and weapons production that generate GTCC radioactive waste. GTCC Radioactive Waste that has been generated must be stored and re-containerized for the entire length of time it is radioactive (and hazardous for mixed GTCC). It must be stored in an institutional system that perpetuates knowledge from generation to generation of the waste and its hazard, in a physical system that prevents intentional or unintentional leakage and spreading, in a manner that facilitates re-containerization and isolation from the biosphere and in an economic system that internalizes the costs so that those that generate(d) the waste pay for its perpetual care and isolation. Diane D’Arrigo, Nuclear Information and Resource Service, dianed@nirs.org 9/10/07 NIRS Additional comments on GTCC:</p> <p>We support requests of other organizations for a comment period extension.</p> <p>We also support the call to withdraw and redo this notice with more realistic information and options and clearer identification of the waste stream under consideration.</p> <p>The GTCC waste stream is inadequately projected. For example, the projected waste stream assumes production of GTCC waste from some as-yet non-existent facilities (such as RPS) but not from others (such as GNEP). It is especially irresponsible to ignore the amount that could be produced from GNEP when previous reprocessing is identified as a large component of the existing inventory. It is important to report to Congress and in the EIS how much of the radioactivity is from various sources including, clearly, nuclear power, nuclear power fuel fabrication, reprocessing, etc. What is the true need for this process?</p> <p>We also recommend that terms such as “existing” waste be expanded to cover all the waste physically exists. As it is now used it does not include waste that physically exists at nuclear facilities but have not become waste in the DOE inventory.</p> <p>The options DOE identifies for disposal include sites such as WIPP which by law cannot take that waste. DOE should not advocate</p>

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				<p>or suggest violating commitments and legal requirements such as the Yucca Mountain cap on amount of waste received and the WIPP limitation to take weapons-generated TRU waste only. In addition, if such options are pursued here (in violation of law and ethics), all of the environmental documents for those sites should be amended immediately, with public notification and comment.</p> <p>Regarding consideration of the so-called "low-level" radioactive waste sites licensed under 10 CFR 61 or agreement state licenses, we point out the inadequacy of those regulations for classes A, B and C. The public has not allowed one new "low-level" radioactive waste site to open precisely because the regulations are not adequate to isolate the waste for as long as it remains radioactively hazardous. There is a greater hazard from radioactivity than was admitted by NRC when it adopted and amended 10 CFR 61.55 (the tables distinguishing classes A, B, C and GTCC) and all of 10 CFR 61. Those site are NOT capable of taking even more concentrated wastes as is suggested in the scoping documents.</p> <p>DOE needs to incorporate the best radiation risk information in its EIS.</p> <p>I referred to Otake and Schull in my hearing comments. One of their papers indicating in utero exposure can lead to mental retardation is Otake, M. and Schull, W.J., "In Utero Exposure to A-bomb Radiation and Mental Retardation; a Reassessment," <i>The British Journal of Radiology</i>, 57, 409-414, 1984.</p>
132	<p>e-mail: Alyssa Go Nuclear and International Programs Natural Resources Defense Council 1200 New York Ave, Suite 400 Washington, DC 20005</p> <p>Letter from: Geoffrey H. Fettus Senior Project Attorney</p>	Natural Resources Defense Council	9/21/2007	<p>The Natural Resources Defense Council (NRDC) writes to request that the Department of Energy (DOE) withdraw its Notice of Intent Prepare an Environmental Impact Statement (EIS) for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste. 72 Fed. Reg. 40135, July 23, 2007. The Notice of Intent (NOI) fails to comply with the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, et seq. and fails to provide any comprehensible description of the waste inventory to be managed, the regulatory structure to be in place for the management and disposal process, the criteria for site selection or methods of disposal, and the range of alternatives being considered. After withdrawal of this Nor and in order to be in compliance with NEPA, the agency should promptly work to issue an Advanced Notice of Intent to Prepare a Programmatic Environmental Impact Statement (PEIS).</p> <p>For decades, it has been an accepted premise that Greater-Than-Class-C Low-Level Radioactive Waste (GTCC LLW) is not suitable for near-surface disposal. See 10 C.F.R. § (a)(2)(iv). In May of 2005, DOE broached the matter of GTCC LLW disposal with an Advanced Notice of Intent to Prepare an EIS for the Disposal of GTCC LLW. With this July 2007 Nor, DOE has proposed a number of disposal sites that at first blush, seem to be limited solely to DOE sites, selection of which does not appear to be based upon a set of objective and protective environmental criteria. DOE has proposed to create a new construct of waste classification, defense-derived "GTCC-like waste," and to construct and operate either a new facility, or, in the alternative, multiple facilities at these preselected DOE sites to dispose of both commingled GTCC LLW and GTCC-like waste. DOE has also proposed consideration of a range of disposal methods, which may not be based on waste characteristics and objective site criteria, including deep borehole, existing and projected repositories, and near surface disposal. And all of this analysis is to be performed under one EIS. This is inadequate. DOE should reverse course and commence work on a PEIS, with the express understanding that significant additional NEPA work will need to be done (i.e., singular tiered EIS' s for specific site decisions) after the all parties have had an opportunity to weigh in on the wider programmatic decisions.</p> <p>DOE should prepare a PEIS.</p> <p>In this scoping document, DOE obscures the issue of the true extent of the actions it is proposing to undertake when the Department writes, "[i]ncluding a generic commercial facility in the EIS will allow DOE to make a programmatic determination</p>

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				<p>regarding disposal of GTCC LLW and GTCC-like waste in such a facility." 72 Fed. Reg. at 40138. The law is unequivocal regarding such matters, and DOE must initiate a broad, comprehensive and technically searching review of the environmental impacts of the entire range of issues presented by this as yet speculative set of related actions for both commercial and defense radioactive waste. All the reasonably foreseeable components of disposing of Greater-Than-Class-C Low-Level Radioactive Waste (GTCC waste) and DOE's newly created "GTCC-like waste," and their connected and cumulative environmental impacts must be described for the benefit of Executive Branch decisionmakers, other affected agencies, Congress, and the public. This analysis must include a full range of reasonable alternatives for achieving the government's purpose and need for action, thereby ensuring that the agency embarks on a legally compliant path toward fulfilling its NEPA obligations.</p> <p>As the Department is well aware, NEPA requires an impact statement on all "proposals for legislation and other major Federal action" that significantly affect the environment. 42 U.S.C. § 4332(C). In fact, CEQ regulations explicitly include the adoption of programs as one category of "Federal action" requiring an EIS. 40 C.F.R. § 1502.4(b). Moreover, agencies have an obligation under NEPA to evaluate not only programs involving the siting and construction of new facilities, but also "federal or federally assisted research, development, or demonstration programs for new technologies which, if applied, could significantly affect the quality of the human environment." 40 C.F.R. § 1502.4 (emphasis added). With the potential range of disposal configuration and siting issues that could arise in this matter - deep borehole injection, multiple vs. single disposal sites, and the difficulty of developing defensible and rational life-cycle cost estimates - a programmatic EIS is precisely the required evaluation of the government's full proposal for ambitious plans that could involve multiple sites, diverse waste streams, and new technologies.</p> <p>Specific issues that DOE must address in any initial PEIS on these matters include a full and clear accounting of the waste inventory of GTCC LLW and GTCC-like waste. This should include newly generated and projected waste. Importantly, the basis for any newly generated or projected inventory should be clearly stated and documented. Once that waste inventory is fully presented, the DOE must analyze the range of disposal and storage options, including all disposal options to hardened, on-site storage. And with the range of disposal options presented, DOE must clearly account for the environmental standards and the associated life-cycle costs that will be necessary and implemented for each potential disposal or storage method.</p> <p>To move forward with such a broad, unfocused program with a limited EIS is unwise and unlawful. Well-established federal law defines a program as "a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive." 40 C.F.R. § 1508.18(b)(3). CEQ regulations further provide that "proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." 40 C.F.R. § 1502.4(a).</p> <p>Courts have recognized that the kind of long-range environmental planning NEPA envisions requires analyzing environmental impacts early in the process and not only at the site-specific level. <i>See, e.g., NRDC v. Hughes</i>, 437 F.Supp. 981, 992 (D.D.C. 1977) ("If regional or site-specific EIS's are permitted to act as curative of programmatic deficiencies and as a substitute for a Final EIS, the policy of long-range environmental planning would be defeated. Thus, the filing of separate site-specific EIS's are not a substitute for an adequate final programmatic EIS.") Furthermore, "[a]gencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decisionmaking." 40 C.F.R. § 1502.4(b). Deciding to potentially dispose of significant amounts of waste in a manner not contemplated by the Nuclear Regulatory Commission's current treatment of GTCC LLW is just such a point, and it must be supported by a full-blown PEIS.</p>

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				<p>NEPA analysis to inform government decisions regarding "broad federal actions," and disposal of GTCC LLW and this newly created, yet to be defined waste classification of "GTCC-like waste" should obviously take advantage of, but cannot be limited to, and need not await, the availability of project-specific design, construction and operational data on individual facilities that may be selected to dispose of the waste, since the very issues under NEPA review concern the reasonably foreseeable impacts of reasonable alternative configurations of a broader waste management and disposal program.</p> <p>Such a broad programmatic review of alternatives may, and often does lead to the subsequent selection, detailed design, and construction of one or more facilities at specific sites with its own concomitant NEPA review. But a programmatic NEPA analysis must consider without prejudice the full range of reasonable alternatives, and may ultimately result in the selection of a reasonable alternative program configuration that may be quite different from those originally proposed.</p> <p>Federal regulations require that NEPA analyses should be available to inform policy decisions that involve an agency's program planning as well more immediate determinations on specific pending construction projects. "Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decision-making" (emphasis added); "Agencies shall integrate the NEPA process with other planning at the earliest possible time;" and "The statement shall be prepared early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made." 40 C.F.R. §§ 1501.4(b), 1501.2, 1502.5.</p> <p>Electing to do an EIS at this stage is clearly contrary to CEQ regulations (adopted by DOE <i>en bloc</i> as part of its own regulations) because it unlawfully segments and cramps environmental review, <i>viz.</i> "Statements shall be prepared on such programs and shall be available before the program has reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives." 40 C.F.R. § 1502.4(c) (emphasis added).</p> <p>To repeat, NRDC requests that the Department withdraw the present NOI and start over with an Advanced Notice of Intent to Prepare a Programmatic Environmental Impact Statement (PEIS) on the disposal of GTCC LLW and "GTCC-like waste." Failure to review the reasonably foreseeable and connected environmental impacts of the entire proposed program would result in an analysis that unlawfully segments environmental review, fails to review any meaningful broad program alternatives in time to inform agency, Executive Branch, and congressional decision-making, and ignores the cumulative environmental impact of what is likely to be a complicated, costly, and decades long endeavor.</p> <p>If you have questions, please do not hesitate to contact us at (202) 289-6868.</p> <p>Thank you for considering our views on these important matters. Sincerely,</p>
133	From Saqib Hussain on behalf of Ralph Anderson Nuclear Energy Institute	Nuclear Energy Institute	9/21/2007	<p>The Nuclear Energy Institute (NEI), on behalf of the nuclear energy industry, is pleased to comment on the subject Federal Register notice that announces the Department of Energy's (DOE) intent to prepare an environmental impact statement (EIS) under the National Environmental Policy Act (NEPA) for the disposal of Greater-Than-Class-C (GTCC) low-level radioactive waste.</p> <p>In our previous comments to the Department regarding a possible EIS, NEI suggested that DOE should continue to develop and</p>

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	1776 I Street NW, Suite 400 Washington, DC 20006			<p>further institutionalize its ongoing programs to secure disposal of GTCC materials at Yucca Mountain, and need not consider other disposal options. Our comments were predicated on our understanding that the Department’s 2002 Yucca Mountain EIS already encompasses disposal of GTCC at Yucca Mountain and Nuclear Regulatory Commission (NRC) regulations call out a geologic repository as the primary option for disposal of GTCC materials. We therefore concluded that further pursuit of an EIS in this regard would be “unnecessary and duplicative.”</p> <p>We maintain the view that a decision to proceed with disposal of GTCC at Yucca Mountain can be made based on the existing analysis. However, the subject notice reflects a DOE decision to proceed with an EIS and now asks for comments on the proposed scope of the analysis to be performed. Our comments are, therefore, directed to this request, notwithstanding our previously expressed views on the need for such an analysis.</p> <p>NEI does not suggest any changes to the scope of the EIS as proposed in the subject notice. The alternatives described for evaluation appear to cover the range of options that might eventually be found acceptable for disposal of GTCC materials and the DOE proposal for evaluating each of the GTCC waste types (i.e., sealed sources, activated metals, and other waste) seems appropriate to gaining a better understanding of how the respective impacts and benefits of options may differ, which can provide additional flexibility in future decisions about disposal of GTCC materials.</p> <p>In evaluating these options, we urge DOE to pay close attention to an NRC strategic assessment of low-level radioactive waste management currently underway that may involve some reconsideration of regulations and regulatory guidance affecting low-level waste classification. We suggest that DOE remain apprised of NRC activities in this regard, particularly as to how estimated quantities and physical forms of GTCC low-level radioactive waste might be affected.</p> <p>If you have any questions regarding our comments, please contact me at 202-739-8111; rla@nei.org.</p> <p>Ralph L. Andersen, CHP Director, Radiation Safety & Low-Level Waste Management</p> <p>Nuclear Energy Institute 1776 I Street NW, Suite 400 Washington, DC 20006 www.nei.org</p>
134	Kevin Kamps 6930 Carroll Avenue, Suite 400 Takoma Park, MD 20912	Beyond Nuclear	9/21/2007	<p>In addition to the oral comments provided by Beyond Nuclear at the DOE public scoping hearing in Washington, D.C. on Sept. 10th, 2007, we would like to add the following.</p> <p>Beyond Nuclear fully endorses the comments submitted by Alfred Meyer, Program Director of the Alliance for Nuclear Accountability, on 9/20/07. These comments are posted online at http://www.ananuclear.org/News/Library/tabid/56/articleType/ArticleView/articleId/24/ANA-Comments-on-GTCC-waste-disposal-plans.aspx</p> <p>In addition, regarding transport impacts, we request that DOE consider the impacts from so-called “incident-free” transports of GTCC wastes. That is, DOE should consider the “mobile x-ray machine that cannot be turned off” risks that would occur even without accidents, the emission of gamma and perhaps other radiation from shipping containers holding GTCC wastes, and the health impacts upon workers and members of the public that those emissions would have.</p> <p>DOE should also address the risks of GTCC waste shipping containers being externally contaminated with radioactive particles, and what doses and adverse health impacts workers and members of the public would face from such exposures.</p> <p>Finally, DOE should address, in addition to its analysis of “incident-free” and transport accident risks, the risk of intentional attacks being perpetrated on GTCC waste shipping containers.</p>

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				<p>Also, we would like to point out to DOE Environmental Impact Statement preparers that analysis and description of the standard pregnant woman concept described in the ANA comments can be found at www.ieer.org, the website of the Institute of Energy and Environmental Research.</p> <p>Another point that DOE should address in the EIS is the impacts of climate change on the various proposed disposal methods and targeted dumpsite locations for GTCC wastes. For example, the impact of dramatically increased rainfall due to climate change at a GTCC waste dumpsite that DOE currently considers an arid location. As the old song goes, “the times, they are a-changing...”.</p> <p>Beyond Nuclear would like to emphasize that it is entirely inappropriate for DOE to consider GTCC waste disposal at Yucca Mountain, Nevada, since the proposed dumpsite there is not yet licensed. In fact, the earliest that dump could open, according to DOE itself, is around 2020. U.S. Nuclear Regulatory Commissioner Ed McGaffigan stated in early 2007 that 2025 is a more likely opening date, although the dumpsite may never open at all because it has been so badly managed from start to finish. Yucca is geologically unsuitable for irradiated nuclear fuel and high level radioactive waste storage. For the same reasons, Yucca is also inappropriate for GTCC waste disposal. And last but not least, Yucca Mountain belongs to the Western Shoshone Indian Nation according to the Treaty of Ruby Valley, signed by the U.S. government in 1863, and thus the highest law of the land, equal in stature to the U.S. Constitution itself. The Western Shoshone do not want radioactive wastes dumped on their sacred Yucca Mountain, and for this environmental justice reason alone, DOE should cease and desist from targeting Yucca Mountain for GTCC waste disposal. Thus, the Yucca Mountain dumpsite is looking more and more doubtful to ever open, which is as it should be. The Yucca dump should never open. DOE cannot and should not consider dumping GTCC wastes at Yucca Mountain.</p> <p>Beyond Nuclear herein submits, as an Appendix, below, the full statement of “Principles for Safeguarding Nuclear Waste at Reactors,” including the over 150 organizations that have endorsed those Principles. Although the Principles address irradiated nuclear fuel and high-level radioactive waste, they extend to GTCC waste management, for irradiated nuclear fuel/high-level radioactive waste and GTCC waste are – although not identical -- very similar in many regards, including many of their radioactive hazards. For that reason, Beyond Nuclear calls on DOE to include applicable concepts from the Principles of Hardened On-Site Storage for GTCC wastes at their point of generation, or as near to it as possible to maximize safety, as a full-fledged alternative for consideration in the Environmental Impact Statement. Similarly, whereas the attached Principles refer only to radioactive waste storage at commercial nuclear power reactor sites, the Principles can and should be extended to GTCC wastes stored at DOE sites, such as nuclear weapons complex sites, as well as GTCC wastes originating at such facilities as research reactors that fall under DOE’s jurisdiction and responsibility.</p> <p>We repeat our request made at the D.C. hearing that DOE extend the public comment period. This is reasonable, given the importance of this proceeding to public health and safety and environmental protection (given GTCC wastes’ radioactive hazards and risks). It is especially reasonable given the errors in DOE’s tables that appeared in the Federal Register, such as missing footnotes, and thus missing assumptions. DOE should correct all errors in the Federal Register, and then re-open the comment period for another 60 days.</p> <p>These comments are also made on behalf of Don’t Waste Michigan, upon whose board I serve. Submitted via DOE’s web form on 9/21/07 by Kevin Kamps, Radioactive Waste Watchdog Beyond Nuclear 6930 Carroll Avenue, Suite 400 Takoma Park, MD 20912 (301) 270-2209 kevin@beyondnuclear.org www.beyondnuclear.org</p> <p><u><i>Appendix</i></u></p>

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				<p>Also viewable online at http://www.citizen.org/documents/PrinciplesSafeguardingIrradiatedFuel.pdf First released: Sept. 13, 2006 Updated list of signatories: June 4, 2007</p> <p>Principles for Safeguarding Nuclear Waste at Reactors</p> <p>The following principles are based on the urgent need to protect the public from the threats posed by the current vulnerable storage of commercial irradiated fuel. The United States does not have a near-term solution for the permanent storage of high-level nuclear waste. The proposed Yucca Mountain site is unsafe for geologic storage of nuclear waste and the program remains mired in bad science, mismanagement, and yet another design overhaul. Even if licensed, Yucca Mountain could not legally contain all of the waste produced by existing reactors. Under the U.S. Department of Energy's unrealistically optimistic scenario, Yucca Mountain is not predicted to begin receiving waste until at least 2017 and transporting waste to the site would take more than 30 years. Meanwhile, irradiated fuel at reactor sites remains vulnerable to accidents and attacks.</p> <p>The undersigned organizations' support for improving the protection of radioactive waste stored at reactor sites is a matter of security and is in no way an indication that we support nuclear power and the generation of more nuclear waste.</p> <p><input type="checkbox"/> Require a low-density, open-frame layout for fuel pools: Fuel pools were originally designed for temporary storage of a limited number of irradiated fuel assemblies in a low density, open frame configuration. As the amount of waste generated has increased beyond the designed capacity, the pools have been reorganized so that the concentration of fuel in the pools is nearly the same as that in operating reactor cores. If water is lost from a densely packed pool as the result of an attack or an accident, cooling by ambient air would likely be insufficient to prevent a fire, resulting in the release of large quantities of radioactivity to the environment. A low density, open-frame arrangement within fuel pools could allow enough air circulation to keep the fuel from catching fire. In order to achieve and maintain this arrangement within the pools, irradiated fuel must be transferred from the pools to dry storage within five years of being discharged from the reactor.</p> <p><input type="checkbox"/> Establish hardened on-site storage (HOSS): Irradiated fuel must be stored as safely as possible as close to the site of generation as possible. Waste moved from fuel pools must be safeguarded in hardened, on-site storage (HOSS) facilities. Transporting waste to interim away-from-reactor storage should not be done unless the reactor site is unsuitable for a HOSS facility and the move increases the safety and security of the waste. HOSS facilities must not be regarded as a permanent waste solution, and thus should not be constructed deep underground. The waste must be retrievable, and real-time radiation and heat monitoring at the HOSS facility must be implemented for early detection of radiation releases and overheating. The overall objective of HOSS should be that the amount of releases projected in even severe attacks should be low enough that the storage system would be unattractive as a terrorist target.</p> <p>Design criteria that would correspond to the overall objective must include:</p> <ul style="list-style-type: none"> - Resistance to severe attacks, such as a direct hit by high-explosive or deeply penetrating weapons and munitions or a direct hit by a large aircraft loaded with fuel or a small aircraft loaded with fuel and/or explosives, without major releases. - Placement of individual canisters that makes detection difficult from outside the site boundary. <p><input type="checkbox"/> Protect fuel pools: Irradiated fuel must be kept in pools for several years before it can be stored in a dry facility. The pools must</p>

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				<p>be protected to withstand an attack by air, land, or water from a force at least equal in size and coordination to the 9/11 attacks. The security improvements must be approved by a panel of experts independent of the nuclear industry and the Nuclear Regulatory Commission.</p> <p><input type="checkbox"/> Require periodic review of HOSS facilities and fuel pools: An annual report consisting of the review of each HOSS facility and fuel pool should be prepared with meaningful participation from public stakeholders, regulators, and utility managers at each site. The report must be made publicly available and may include recommendations for actions to be taken.</p> <p><input type="checkbox"/> Dedicate funding to local and state governments to independently monitor the sites: Funding for monitoring the HOSS facilities at each site must be provided to affected local and state governments. The affected public must have the right to fully participate.</p> <p><input type="checkbox"/> Prohibit reprocessing: The reprocessing of irradiated fuel has not solved the nuclear waste problem in any country, and actually exacerbates it by creating numerous additional waste streams that must be managed. In addition to being expensive and polluting, reprocessing also increases nuclear weapons proliferation threats.</p> <p><i>Signatories (as of June 4, 2007): (about 5 pages)</i></p>
135	Arjun Makhijani, President, Institute for Energy and Environmental Research	Institute for Energy and Environmental Research (IEER)	9/21/2007	<p>See Letter/Attachment for Complete Tables and References</p> <p>Alliance for Nuclear Accountability Arjun Makhijani, Ph.D., President, Institute for Energy and Environmental Research</p> <p>These are comments of the Institute for Energy and Environmental Research on the proposed scope of the various alternatives to disposal of Greater than Class C (GTCC) radioactive waste and “GTCC-like waste as published by the DOE in its <i>Notice of Intent to Prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste</i> and the <i>Correction</i> to Table 1¹ These comments may overlap with verbal comments made by Arjun Makhijani in Washington, D.C. on September 10, 2007. To the extent that they do, these written comments should be used as the final version.</p> <p>The specific recommendations below for items to be included in the scope of the GTCC EIS are as follows:</p> <p><input type="checkbox"/> <i>In so far as the radionuclides contained in DOE LLW are those listed in Tables 1 and 2 of 10 CFR 61.55, the DOE should explicitly adopt the same definition for “GTCC-like” waste as the definition of GTCC in the NRC’s rule at 10 CFR 61.55.</i></p> <p><input type="checkbox"/> <i>The NOI should include the DU from DOE’s enrichment plants within the scope of its GTCC-like waste for the purpose of its EIS.</i></p> <p><input type="checkbox"/> <i>Yucca Mountain should be excluded from the scope of the GTCC Disposal EIS.</i></p> <p>¹ United States. Department of Energy, “Notice of Intent to Prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste,” <i>Federal Register</i> 72, no. 140 (July 23, 2007), pages 40135-40139 and its “Notice of Intent to Prepare an Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low-Level Radioactive Waste: Correction,” <i>Federal Register</i> 72, no. 146 (July 31, 2007), page 41819. The page references to the NOI in these comments are to the <i>Federal Register</i> page numbers. Referred to hereafter as DOE NOI 2007.</p>

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				<p>² DOE NOI 2007, p. 40135.</p> <p><input type="checkbox"/> WIPP should be excluded from the scope of the GTCC Disposal EIS.</p> <p><input type="checkbox"/> Hardened On-site Storage (HOSS) should be included as one of the GTCC management options in the EIS.</p> <p><input type="checkbox"/> The evaluation of borehole disposal should be based on actual data and analysis of past poor experience with intermediate depth disposal.</p> <p><input type="checkbox"/> Radiation dose calculations should include separate estimates of doses to males and females in various ages groups from infant on up. Cancer risks should be based on the results of the BEIR VII report. All cancer risks should consider incidence as well as mortality. Non-cancer risks should also be considered.</p> <p>1. The scope of the EIS should include a clear definition of “GTCC-like” waste. This definition should be at least as protective as the present definition of GTCC in the Nuclear Regulatory Commission’s low-level waste regulation, as defined in 10 CFR 61.55.</p> <p>The NOI proposes that the EIS should cover both GTCC waste produced by NRC licensees and “GTCC-like” waste produced by the DOE:</p> <p>In addition, DOE proposes to include DOE LLW and transuranic waste having characteristics similar to GTCC LLW and which may not have an identified path to disposal (hereafter referred to as GTCC-like waste) in the scope of this EIS. DOE’s GTCC-like waste is owned or generated by DOE. The use of the term “GTCC-like” does not have the intent or effect of creating a new classification of radioactive waste.²</p> <p>In so far as the radionuclides contained in DOE LLW are those listed in Tables 1 and 2 of 10 CFR 61.55, the DOE should explicitly adopt the same definition for “GTCC-like” waste as the definition of GTCC in the NRC’s rule at 10 CFR 61.55. That rule has already gone through and EIS process. Further the DOE has stated that it “does not have the intent or effect of creating a new classification of radioactive waste.” In adopting the recommendation here, the DOE would be giving effect to this intent.</p> <p><i>Recommendation 1: In so far as the radionuclides contained in DOE LLW are those listed in Tables 1 and 2 of 10 CFR 61.55, the DOE should explicitly adopt the same definition for “GTCC-like” waste as the definition of GTCC in the NRC’s rule at 10 CFR 61.55.</i></p> <p>³The analysis in this section is large taken from and based on Arjun Makhijani, <i>Regulatory and Health Protection Considerations in the Re-licensing of the EnergySolutions Low-Level Waste Disposal Facility near Clive, Utah</i>, report prepared for HEAL Utah, Institute for Energy and Environmental Research, Takoma Park, Maryland, September 21, 2007.</p> <p>⁴ NUREG-0782 1981 Vol. 2, Table 7.2 (page 7-18)</p> <p>⁵ Higher density assumptions would result in a lower maximum allowable concentration per unit weight.</p> <p>2. The scope of the EIS should include depleted uranium (DU) from enrichment plants and define it as “GTCC-like” waste to be managed on a par with NRC-defined GTCC waste.³</p> <p>The Department of Energy has a vast amount of depleted uranium that has resulted from the operation of its three enrichment plants. This DU has not been included in the scope of the proposed EIS. It should be. As is clear from the analysis below, large</p>

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				<p>amounts of depleted uranium from enrichment plants have not yet been given a classification within the NRC low level waste scheme. An operational waste classification for DU from enrichment plants cannot therefore be made based on current NRC rules. The analysis below shows that “GTCC-like” is the appropriate designation. This would mean that the DOE would manage DU from enrichment plants or any other large amounts of DU on a par with GTCC waste.</p> <p>The classification of depleted uranium from uranium enrichment plants has become an issue in the last dozen years or so in the context of the licensing of new uranium enrichment plants. This is because at the time the low-level waste regulations were promulgated (1982), depleted uranium was still considered a “source material,” in the same category as natural uranium. At that time, only the Department of Energy was in possession of a large quantity of depleted uranium hexafluoride tails in the United States.</p> <p>Some have proposed that DU from enrichment plants be treated as Class A low-level radioactive waste and that it be disposed of in shallow land burial facilities that are licensed to accept such waste. This would be contrary to the current status of DU within the NRC regulations and to the hazard posed by DU.</p> <p><i>a. Classification Status of DU</i></p> <p>In considering the low-level waste rule in 1981, the U.S. Nuclear Regulatory Commission (NRC) at first proposed including enriched, natural, and depleted uranium within the framework of low-level waste disposal. It proposed a limit of 0.05 microcuries per cubic centimeter (0.05 $\mu\text{Ci}/\text{cc}$) for Class A, B, or C waste for DU or natural uranium.⁴ This would not have allowed pure depleted uranium in any chemical form to be disposed of as Class A (or B or C) waste. For instance, pure DU_{38}O, the oxide form that is the typical result of proposed deconversion plants, has a specific activity of about 340 nanocuries per gram. At relatively low density of 1.5 grams per cc (a typical density of soil), waste containing DU_{38}O to a level of 0.05 $\mu\text{Ci}/\text{cc}$ is equivalent to about 33 nanocuries per gram.⁵ In other words, pure DU_{38}O is about 10 times more radioactive than the maximum that would have been allowed under the draft rule proposed in 1981, for Class A (or B or C) waste, if the draft proposal of the NRC had been adopted in 1981.</p> <p>⁶ NUREG-0945 1982 Vol. 3, Appendix F, p. 42, emphasis added.</p> <p>⁷ There was no uranium enrichment plant licensed by the NRC at the time. The 2006 license granted to LES was the first such license granted by the NRC.</p> <p>It is clear, therefore, that even at the draft EIS stage, there was no intention of classifying pure DU in any chemical form as either Class A, B, or C waste. Had the draft rule been finalized without modification, pure DU in any chemical form would have been GTCC waste.</p> <p>As it turns out, uranium (depleted, natural, and enriched) was deleted from the low-level waste table in the final rule.</p> <p>When the NRC issued its final rule and supporting Environmental Impact Statement (EIS) in 1982, the removal of uranium from the list of radionuclides was explained as follows:</p> <p>Uranium has been removed as a radionuclide that must be considered for waste classification. The Commission’s analysis shows that <i>the types of uranium-bearing wastes disposed of</i> do not present a sufficient hazard to warrant limitation on the concentration of this naturally occurring material.⁶</p>

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				<p>It is clear that the disposal of uranium, other than the small amounts typically disposed of by NRC licensees in 1982, was removed from the purview of the low-level waste rule. Specifically, disposal of large amounts of uranium, including depleted uranium, was removed from the rulemaking. Based on this decision, the results of applying the 10 CFR 61 performance assessment methodology to uranium were not presented by the NRC in the Final EIS covering the low-level waste regulation.</p> <p>Even though the Department of Energy has not officially reclassified DU as a waste, it has been recognized as a practical matter for some time, including by the DOE, that most of the DU in the DOE inventory will have to be disposed of as a waste. The Nuclear Regulatory Commission recognized this reality during consideration of a license application for a new enrichment plant, called the National Enrichment Facility, filed by Louisiana Energy Services (LES). LES was granted a license to build the plant in June 2006.</p> <p>The upshot of the LES licensing proceeding is that the status of DU from enrichment plants was recognized as an open question by the NRC. First, the NRC determined that DU is a “low-level” waste as part of the catch-all scheme of classifying everything as low-level waste that does not have another legal classification. The NRC also affirmed that DU contained in waste that was <i>within the framework of the original rule</i> could be considered Class A waste, under 10 CFR 61.55(a)(6). That is, small amounts of DU that were typical of those generated by NRC licensees in 1982 could be considered Class A waste. The NRC also specifically excluded DU from enrichment plants from the scope of its order.⁷ This is because the environmental impacts of disposal of the large amounts of DU generated by enrichment plants were not examined in the Final EIS for low-level waste. Hence, the Commission ordered the NRC staff to conduct <i>a separate proceeding</i>,</p> <p>⁸ NRC CLI-05-20 pages 523, 535-536 (footnotes omitted), emphasis added.</p> <p>⁹ NRC 2007 page 40, emphasis added. .</p> <p>¹⁰ Court of Appeals 2007</p> <p><i>apart from the LES license proceeding</i>, to determine the class to which large amounts of DU from enrichment plants belong:</p> <p>The Commission is aware that in creating the section 61.55 waste classification tables, the NRC considered depleted uranium, but apparently examined only specific kinds of depleted uranium waste streams – “the types of uranium-bearing waste being typically disposed of by NRC licensees” at the time. The NRC concluded that those waste streams posed an insufficient hazard to warrant establishing a concentration limit for depleted uranium in the waste classification tables. Perhaps the same conclusion would have been drawn had the Part 61 rulemaking explicitly analyzed the uranium enrichment waste stream. But as Part 61’s FEIS indicates, no such analysis was done. Therefore, the Commission directs the NRC staff, outside of this adjudication, to consider whether the quantities of depleted uranium at issue in the waste stream from uranium enrichment facilities warrant amending section 61.55(a)(6) or the section 61.55(a) waste classification tables.⁸</p> <p>In its brief to the Court of Appeals in the LES case (the intervenors have appealed the granting of the license), the NRC explicitly acknowledged that the classification status of DU from enrichment plants under the low-level waste rule is not settled: [T]he Commission expressly acknowledged [in the course of the LES license proceedings] that properly classifying large quantities of DU is an <i>open question, requiring further study by NRC staff, a study the Commission directed its staff to undertake</i>.⁹</p> <p>The fact that this is “an open question” was extensively discussed during the hearing before the federal Court of Appeals in Washington, D.C. on September 7, 2007. The possibility that it could be something other than Class A, including a class that would require deep disposal was discussed. The NRC’s counsel acknowledged before the court that both of these contingencies could occur.¹⁰ The NRC staff has yet to begin the study that the Commission ordered it to undertake.</p> <p><i>b. Technical Analysis of DU Classification</i></p>

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				<p>DU from enrichment plants should be classified as GTCC-like waste in the definition suggested above. Radiological analyses show that disposal at shallow land disposal sites would result in doses far above the maximum allowable limits under 10 CFR 61 Subpart C. The radiochemical and radiological properties of DU are similar to those for GTCC waste except for nomenclature. Under 10 CFR 61.55, waste containing more than 100 nanocuries per gram of long-lived, alpha-emitting transuranic radionuclides are considered GTCC waste. DU fits this description, except for the fact that its atomic number is 92, and hence cannot be called "transuranic" because the latter radionuclides have atomic numbers greater than 92, by definition of the term "transuranic." In other respects DU fits the GTCC category. It consists entirely of long-lived, alpha-emitting radionuclides, as can be seen from Table 1.</p> <p><i>Table 1: Radiological properties of U-234, U-238 and selected transuranic radionuclides</i></p> <table border="1"> <thead> <tr> <th>Isotope</th> <th>Main decay mode</th> <th>Alpha particle energy, MeV</th> <th>Half-life, years</th> <th>Comm</th> </tr> </thead> <tbody> <tr> <td>Uranium-238</td> <td>Alpha</td> <td></td> <td>4.1</td> <td>4.46 billion</td> </tr> <tr> <td>Uranium-235</td> <td>Alpha</td> <td>4.4</td> <td>700 million</td> <td>weak gamma emitter</td> </tr> <tr> <td>Uranium-234</td> <td>Alpha</td> <td></td> <td>4.8</td> <td>245,000</td> </tr> <tr> <td>Neptunium-237</td> <td>Alpha</td> <td></td> <td>4.8</td> <td>2.14 million</td> </tr> <tr> <td>Plutonium-238</td> <td>Alpha</td> <td></td> <td>5.5</td> <td>87.7</td> </tr> <tr> <td>Plutonium-239</td> <td>Alpha</td> <td></td> <td>5.1</td> <td>24,110</td> </tr> <tr> <td>Plutonium-240</td> <td>Alpha</td> <td></td> <td>5.1</td> <td>6,537</td> </tr> <tr> <td>Americium-241</td> <td>Alpha</td> <td>5.5</td> <td>432</td> <td>strong gamma emitter</td> </tr> </tbody> </table> <p>The specific activities of various chemical forms of depleted uranium are shown in Table 2. Potential chemical forms for disposal are DUO_2 and DU_3O_8. The NRC staff has proposed the latter.</p> <p><i>Table 2: Specific activities of various chemical forms of depleted uranium, TRU waste, and typical uranium ore with 0.2% natural U by weight</i></p> <table border="1"> <thead> <tr> <th>Chemical form</th> <th>Specific activity, nCi/gm</th> </tr> </thead> <tbody> <tr> <td>uranium metal (DU)</td> <td>400</td> </tr> <tr> <td>uranium dioxide (DUO_2)</td> <td>350</td> </tr> <tr> <td>uranium oxide (DU_3O_8)</td> <td>340</td> </tr> <tr> <td>transuranic activity in TRU or GTCC waste</td> <td>>100</td> </tr> <tr> <td>0.2% uranium ore</td> <td>4 (See Note 1)</td> </tr> </tbody> </table>	Isotope	Main decay mode	Alpha particle energy, MeV	Half-life, years	Comm	Uranium-238	Alpha		4.1	4.46 billion	Uranium-235	Alpha	4.4	700 million	weak gamma emitter	Uranium-234	Alpha		4.8	245,000	Neptunium-237	Alpha		4.8	2.14 million	Plutonium-238	Alpha		5.5	87.7	Plutonium-239	Alpha		5.1	24,110	Plutonium-240	Alpha		5.1	6,537	Americium-241	Alpha	5.5	432	strong gamma emitter	Chemical form	Specific activity, nCi/gm	uranium metal (DU)	400	uranium dioxide (DUO_2)	350	uranium oxide (DU_3O_8)	340	transuranic activity in TRU or GTCC waste	>100	0.2% uranium ore	4 (See Note 1)
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				<p>Notes: 1. The specific activity shown for 0.2% uranium ore includes all decay products of uranium-238 up to and including radium-226, assuming they are in secular equilibrium with uranium-238. Radon-222, and its decay products are not included in this number.</p> <p>2. All values in the table are rounded to one or two significant figures as indicated.</p> <p>The risk of internal exposure to DU is greater than that of internal exposure to GTCC waste containing plutonium at the threshold value of 100 nanocuries per gram, as can be seen from Table 3. This is true even without taking any in-growth of the daughter products of uranium-238 into account. The problem increases with time, as the daughter products of U-238 build up in DU. If the build up of uranium-234, thorium-230, and radium-226 is considered, the ratio of the eventual radiotoxicity of DU and its decay products would be over ten times that of GTCC waste containing 100 nanocuries per gram of plutonium-239. It should be noted that Federal low-level waste regulations contain no time limit for maximum permissible dose limits (10 CFR 61 Subpart C).</p> <p><i>Table 3: Comparison of mortality risk per Bq and mortality per gm of depleted uranium oxide at secular equilibrium to that of plutonium-239 contained in TRU waste at 100 nCi</i></p> <p>¹¹ Source for Table 3: Makhijani and Smith 2005 Table 4.</p> <p>¹² FGR 13 1997 pages 102-103</p> <p>It should also be noted that quantitative evaluations conducted by the NRC, Sandia National Laboratory, and IEER of shallow land disposal of DU from enrichment plants – that is, for large amounts of DU, carried to the time of peak dose or at least well beyond</p> <p>¹³ Makhijani and Smith 2005 and 2005a, and Kozak et al. 1992 pages 19-20. In the first LES case, the NRC’s EIS concluded that “Because for near-surface disposal of U_3O_8, projected doses exceed 10 CFR Part 61 limits, a deep disposal site is most likely to be selected for ultimate disposition of depleted uranium. NRC CEC EIS Final 1994, p. A-9. Kozak et al. and the NRC considered wet sites; Makhijani and Smith considered dry sites. The 10 CFR 61 standard was exceeded at all shallow land burial sites, regardless of climate.</p> <p>1,000 years, have all concluded that such disposal would cause the dose limits of the low-level waste regulation, 10 CFR 61 Subpart C, to be greatly exceeded.¹³</p> <p><i>Recommendation: The NOI should include the DU from DOE’s enrichment plants within the scope of its GTCC-like waste for the purpose of its EIS.</i></p> <p>3. Yucca Mountain should be excluded from the scope of the EIS.</p> <p>The licensing of Yucca Mountain even for high-level waste and for spent fuel is open to question. The project is in deep technical trouble. It would complicate its waste acceptance criteria and its performance assessment to include it as one of the alternatives for GTCC disposal. The NOI does not discuss the implications of including GTCC in the scope of Yucca Mountain disposal for the licensing schedule or application process or for repository space and costs. Should Yucca Mountain be licensed, it is not clear whether there will be enough space in it for spent fuel and defense high-level waste. It would complicate both GTCC disposal as well as the Yucca Mountain Project to include it as one of the possible disposal locations for GTCC and GTCC-like waste.</p> <p><i>Recommendation: Yucca Mountain should be excluded from the scope of the GTCC Disposal EIS.</i></p>

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				<p>4. The Waste Isolation Pilot Plant (WIPP) should be excluded from the scope of the GTCC Disposal EIS.</p> <p>WIPP is supposed to be dedicated to defense transuranic waste (TRU). Besides the stored TRU waste now designated for WIPP or already disposed of these, the DOE has large volumes of buried TRU waste that should be recovered and packaged. As TRU waste these would be designated for WIPP. It is not clear that there is enough room in WIPP for GTCC waste. Further, a lengthy and costly process of certifying WIPP only for TRU waste would have to be reopened, were WIPP to be designated as the site for GTCC disposal. There is no conceivable justification for spending the time and financial resources on reopening that process.</p> <p><i>Recommendation: WIPP should be excluded from the scope of the GTCC Disposal EIS.</i></p> <p>5. Hardened On-site Storage (HOSS) should be included as a one of the GTCC management options.</p> <p>As a result of the many costly and lengthy delays in the development of a repository for spent fuel and high-level waste, spent fuel will be stored at reactor sites for decades. Similarly, high-level waste will remain at DOE sites for decades. DU belonging to the DOE will also remain on site for a lengthy period, given that the only reasonable and protective classification (and the only one that is in line with the one implicitly proposed by the NRC in its 1981 draft EIS) is GTCC.</p> <p>Given the lengthy period of storage and the risk of terrorist attacks, hardening of spent fuel storage is essential for the protection of the public. In fact, such hardening would make it much more unlikely that a terrorist attack on such spent fuel facilities would take place since the consequences of the attack would be minimized.</p> <p>It makes sense from the point of view of public safety, security, and careful use of taxpayer dollars to also store GTCC and GTCC-like waste in hardened on-site storage.</p> <p>HOSS should meet the following criteria:</p> <ol style="list-style-type: none"> 1. It should not result in catastrophic releases and should be able to resist almost all types of attacks. The amount of releases projected in even severe attacks should be small enough that the storage system would be unattractive as a terrorist target. 2. It should be able to withstand a direct hit by a large commercial airliner full of fuel or anti-tank weapons without catastrophic offsite releases. 3. The individual canister and package locations should not be easily detectable from offsite. <p>As part of the examination of HOSS, the EIS should examine the how the facilities that DOE has built and is using for storage of vitrified high-level waste would perform under the above criteria and what would need to be done (if anything) to harden them sufficiently to meet the above criteria.</p> <p><i>Recommendation: Hardened On-site Storage (HOSS) should be included as a one of the GTCC management options in the EIS.</i></p> <p>6. Borehole evaluation in the EIS should be based on actual data and analysis of past poor experience with intermediate depth disposal.</p> <p>Past experience with intermediate depth disposal, for instance, at Oak Ridge, has not been very promising. At Los Alamos, it is unclear if the effects of such disposal are well-understood, since radionuclides, including transuranic radionuclides are migrating in</p>

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				<p>and around the site much faster than anticipated.</p> <p>The GTCC NOI makes no mention of the process by which intermediate-depth boreholes would be evaluated. The EIS should include explicit criteria for such evaluation that include:</p> <ul style="list-style-type: none"> • Consideration of the rapid migration of radionuclides, including transuranic radionuclides, at a variety of sites, including Oak Ridge, Los Alamos, Nevada Test Site, and Idaho National Laboratory. • Geologic data from the site for which disposal is proposed. <p><i>Recommendation: The evaluation of borehole disposal should be based on actual data and analysis of past poor experience with intermediate depth disposal.</i></p> <p>7. Radiation dose calculations should include separate estimates of doses to males and females in various ages groups from infant on up. Cancer risks should be based on the results of the BEIR VII report. All cancer risks should consider incidence as well as mortality. Non-cancer risks should also be considered.</p> <p>The BEIR VII report¹⁴ of the National Research Council concluded that females face a much higher overall risk than males and that children face higher risks than adults. The risk factors for cancer incidence, by sex and age, published in BEIR VII should be used to estimate risks in the GTCC EIS. Non-cancer risks considered in the BEIR VII report should also be evaluated. If any EPA guidance is used it should be EPA Federal Guidance Report 13, and not Federal Guidance Report 11.</p> <p>We note here that external dose risk factors FGR 13 (and FGR 12) are explicitly based on Reference Man, a hypothetical young “Caucasian” male. The EIS should explicitly reject this model. Dose estimates should be made for the most vulnerable – that is, those most at risk for a given exposure. It is critical in this area therefore to use the BEIR VII report especially for external dose estimates, since it does not suffer from this limitation.</p> <p><i>Recommendation: Radiation dose calculations should include separate estimates of doses to males and females in various ages groups from infant on up. Cancer risks should be based on the results of the BEIR VII report. All cancer risks should consider incidence as well as mortality. Non-cancer risks should also be considered.</i></p>
136	Janet Greenwald, Co-coordinator, Citizens for Alternatives to Radioactive Dumping 202 Harvard SE, Albuquerque, New Mexico 87106	Citizens for Alternatives to Radioactive Dumping	9/22/2007	<p>I respectfully submit these scoping comments for the Greater Than Class C Environmental Impact Statement (GTCC EIS), whose purpose is select a method(s) and a site(s) for permanent disposal of these hottest of so-called low-level radioactive wastes. Given that the EIS is to consider multiple disposal methods and multiple DOE and “generic” commercial sites, DOE should broaden the scope of this EIS to a Programmatic EIS, thereby fulfilling DOE's obligations under NEPA Rules and Regulations.</p> <p>The ultimate disposal of GTCC radioactive wastes must be protective of human health and the environment for many tens of thousands of years. DOE must consider interim, monitored storage until near-absolute safe methods of disposal are devised. Out-of-sight, out-of-mind burial must not be considered just because no other method is now known. The relatively small volumes but high activity levels of radioactive GTCC wastes make its disposal a good issue in which to explore hardened on-site storage until better disposal methods are found. We urge DOE to do so.</p> <p>Analyze Hardened On-Site Storage GTCC radioactive wastes must be safely stored as close to the site of generation as possible. Wastes must be safeguarded in hardened, on-site storage (HOSS) facilities. The impacts of building HOSS facilities must be analyzed in order to ensure that these wastes are not subject to risks posed by wildfire or other natural or man-made disasters. HOSS facilities must not be regarded as a permanent</p>

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				<p>waste solution, and thus should not be constructed deep underground. The waste must be retrievable, and real-time radiation and heat monitoring at the HOSS facility must be implemented for early detection of radiation releases. Funding for independent monitoring of the HOSS facilities at each site must be provided to affected local and state governments. An annual report reviewing the safety condition of each HOSS facility should be prepared with meaningful participation from public stakeholders, regulators, and utility managers at each site. The report must be made publicly available and may include corrective action recommendations.</p> <p>If HOSS is not analyzed in the draft GTCC EIS, please give detailed reasons why not.</p> <p>Please list which proposed disposal methods will or will not work at which sites</p> <p>This GTCC EIS proposes “Enhanced Near Surface Disposal” and “Intermediate Borehole Disposal” as solutions for GTCC waste disposal. Please analyze and list which proposed disposal methods will or will not work at which sites and why, and what depths of repositories and boreholes are being proposed for each site.</p> <p>The GTCC EIS as proposed will introduce transportation risks as the wastes are moved to other sites. Please compare the risks of implementing the GTCC proposal to the risks of not implementing the GTCC proposal. Please specify how many shipments would occur by truck, train, or barge. Specify how many shipping containers would be needed, their cost, whether they already exist or whether new containers would have to be developed.</p> <p>The total volume of current wastes being addressed in this EIS is estimated to be only about 5,600 cubic meters, but containing approximately 144 million curies of activity. The draft EIS must project volumes and curie-counts of future GTCC wastes for the next 100 years. These amounts could accelerate rapidly because of the so-called nuclear renaissance.</p> <p>All GTCC considerations must stringently minimize the use of and be totally protective of our precious water resources in New Mexico. Please explain all mitigation measures needed for all proposed sites and any unavoidable adverse environmental impacts.</p> <p>Please address cumulative impacts on the 50-mile radii surrounding DOE facilities and missions. In New Mexico, this would include Sandia National Laboratories, current operations at the Los Alamos National Laboratory (LANL), planned expanded operations at LANL and future activities contemplated under “Complex 2030” (the future nuclear weapons complex that DOE wants). Possible nuclear operations under the “Global Nuclear Energy Partnership” must also be included. Please be specific about potential impacts to water, air and soil, environmental justice, transportation, economics (including tourism), emergency preparedness, and waste generation.</p> <p>In addition:</p> <ul style="list-style-type: none"> • The life-cycle costs of GTCC must be thoroughly analyzed and estimated. • The draft EIS must include a timeline for the GTCC proposal. • Please use the disposal of GTCC radioactive wastes as the starting point for public discussions of nuclear reactor decommissioning and proposed future reactors. • Please post the transcripts of the public scoping meetings on your website. • Please make all reference documents available to the public on your website. • Please analyze possible GTCC waste treatment alternatives, such as vitrification • Do not bury GTCC wastes at LANL because that conflicts with the New Mexico Environment Department’s cleanup order.

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				<p>• Do not bring GTCC wastes to the Waste Isolation Pilot Plant (WIPP) because that would require a change to federal law. Moreover, the amount of wastes currently projected for disposal at WIPP already exceeds its capacity.</p> <p>• Yucca Mountain must not be considered as an alternative because its suitability for radioactive waste disposal is not determined. Moreover, the amount of wastes currently projected for disposal at Yucca Mountain already exceeds its planned capacity.</p> <p>I support safe, monitored storage of radioactive wastes as a matter of national security and environmental protection. However, that should not be interpreted as support for more nuclear weapons, nuclear power, or the generation of more nuclear wastes. In my view, the best way to treat radioactive wastes is to not produce them to begin with.</p> <p>Sincerely, Name: Janet Greenwald, Co-coordinator, Citizens for Alternatives to Radioactive Dumping Address: 202 Harvard SE, Albuquerque, New Mexico 87106</p>
137	LeRoy Moore	None Given	9/23/2007	<p>On behalf of the Rocky Mountain Peace and Justice Center, P. O. Box 1156, Boulder, CO 80306, phone 303-444-6981, I write to say that we concur in the comments made by Tri-Valey CAREs re. the DOE's Notice of Intent to prepare an EIS on Disposal of Greater Than Class C Low Level Radioactive Waste. Tri-Valley CAREs' comments as sent to your office on September 21, 2007, appear below.</p> <p>Thank you for recording Rocky Mountain Peace and Justice Center's concurrence with these comments.</p> <p>LeRoy Moore, PhD</p> <p>Via email to: gtceis@anl.gov</p> <p>James L. Joyce, Document Manager Office of Regulatory Compliance (EM-10) U.S. Department of Energy 1000 Independence Ave., SW Washington, DC 20585-0119</p> <p>Dear Mr. Joyce:</p> <p>Tri-Valley CAREs (Communities Against a Radioactive Environment) submits the following "scoping" comments pursuant to the Department of Energy (DOE) Notice of Intent (NOI) to Prepare an Environmental Impact Statement (EIS) for the Disposal of Greater Than Class C (GTCC) Low Level Radioactive Waste.</p> <ol style="list-style-type: none"> 1. It is of concern to us that "Greater Than Class C Low Level Radioactive Waste" has not been fully defined. The EIS must include a more specific definition of wastes that will (and will not) be included in this class. 2. The phrase "and GTCC-like waste" likewise prompts concern. What is the full and complete definition of "GTCC-like waste"? What is the DOE's rationale for including what appears to be a somewhat vague quasi-category? 3. Related to the above-definition deficiencies, how is DOE going to ensure that GTCC and GTCC-like do not become "catch all"

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				<p>categories that will lead to disposal of wastes not presently contemplated by DOE. Such vagueness is a serious issue that could render the pending EIS functionally useless and legally inadequate.</p> <p>4. The DOE reports that the volume of wastes to be addressed in the EIS is estimated at 5,600 m3 containing around 144 million curies of radioactivity. Yet, it is unclear if there are other wastes not presently contemplated that could or will become GTCC or GTCC-like in the future due to blending, treatment and/or decay. The EIS must address each of these and other feasible scenarios, detailing in each how "category creep" will be prevented (or accommodated).</p> <p>5. The DOE GTCC and GTCC-like waste projections go out to 2062. Given that present DOE plans, including but not limited the Global Nuclear Energy Partnership and Complex 2030, may result in major increases in GTCC and GTCC-like wastes in the long-term future, shouldn't the waste projects in the EIS be extended to 100 years? If the DOE disagrees, the full discussion and justification should appear in the EIS.</p> <p>6. The EIS should consider reactor decommissioning that may result in GTCC or GTCC-like wastes after 2062.</p> <p>7. Related to the above comments, the GTCC EIS should be clear about which proposed programs (and what assumptions about them) are included in its waste projections and which ones are not -- and why. Again, it is of concern to Tri-Valley CAREs that the real, actual wastes that become categorized as GTCC or GTCC-like may exceed the parameters of analysis being proposed at present by DOE.</p> <p>8. Additional, feasible options for GTCC and GTCC-like wastes should be fully explored in the EIS. In particular, hardened on-site storage (HOSS) at or near the waste generation points should be examined. Such facilities should be constructed to facilitate monitoring and retrieval, if necessary, of the wastes to prevent their migration in the environment. Further, in addition to engineering/construction considerations, the volume and curies of wastes placed in each HOSS facilities should be managed in such a way as to minimize the facility's utility as a terrorist target. It is of concern to Tri-Valley CAREs that HOSS is not included in the NOI. We believe analysis of HOSS options is particularly important because we do not think the methods outlined in the NOI -- enhanced near surface disposal and intermediate borehole disposal -- are likely to be sufficiently protective of the environment in (at least) some locations.</p> <p>9. Related to comment 8, above, different long-term storage and/or disposal options for different locations should be analyzed in the EIS. For example, if DOE believes a particular generation point is not a feasible location for a HOSS, that should be discussed and DOE's rationale fully explicated. Similarly, if the depth to water table makes intermediate borehole disposal infeasible at a particular location, that should be examined with specificity in the EIS. The most likely scenario is that one size will not fit all. And, therefore, one option will not fit all either.</p> <p>8. The EIS should not limit its risk and health considerations to "reference man," which is a hypothetical mid-20ish male, 154 pounds, 5'7", and "Western European or North American in habit and custom." Instead, more sensitive and/or impacted populations, including pregnant women and their fetuses, young children, the elderly, people with immune system disorders, and Native Americans who eat a traditional diet off the land should all be considered. Health protection should be considered on the basis of the most vulnerable among us.</p> <p>9. The DOE should consider whether the appropriate NEPA review may be a Programmatic Environmental Impact Statement rather than an EIS. On its face, a PEIS seems reasonable. GTCC is a connected action and involves multiple sites, for example. If the DOE determines that an EIS by itself is the appropriate NEPA pathway, then the Department should fully explain its rationale in the EIS and consider public comment on it.</p>

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				<p>9. The GTCC public scoping comments should be placed on the DOE web site. When the draft EIS is released, it too should be placed on the DOE web site -- and all reference documents used in its preparation should likewise be accessible and available on the same DOE web site.</p> <p>10. The GTCC draft EIS, like other technical and complex DOE EIS', should have a minimum 90 day comment period.</p> <p>Please include Tri-Valley CAREs in your public notification on the GTCC issue. We would like to receive 2 CD ROMs (or similar) of the draft EIS (or PEIS). Further, we would like to receive 10 copies of the draft document's summary. Please advise us as well of upcoming hearings and/or any other decisions involving GTCC wastes and/or the NEPA process.</p> <p>Thank you for this opportunity to comment.</p> <p>Marylia Kelley Executive Director, Tri-Valley CAREs</p> <p>Marylia Kelley, Executive Director</p> <p>Tri-Valley CAREs 2582 Old First Street Livermore, CA 94551</p>