C.C.A.T.

Colorado Citizens Against *ToxicWaste*, Inc.

PO Box 964, Cañon City, CO 81215
www.ccatoxicwaste.org
www.downtheyellowscakeroad.org

September 15, 2011

Mr. Steve Tarlton, Radiation Program Manager
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80246-1530
Via Email at steve.tarlton@cdphe.co.us

Re: Technical Memorandum, Lincoln Park Monitor Well Installation
Cotter Corporation, August 23, 2011

Dear Mr. Tarlton,

This letter is a collaborative effort of our Board of Directors. It is offered as a Comment, though none has been invited, on the above referenced *Technical Memorandum* proposal by the Cotter Corporation[1]. Approval was sent by you within 10-days, on September 2, 2011.[2] Your approval contains no analysis, questions, comments, or recommendations other than one condition requiring Cotter to install the wells within four months, by January 15, 2012, nor is the U.S. EPA copied on this approval letter. We see nothing to suggest this letter is anything less than a complete approval for Cotter's entire proposal, which includes a choice of new monitoring well locations, and eliminating and replacing existing private wells in the Lincoln Park Groundwater Monitoring Program (GMP).

Though we have concerns about Cotter's proposal detailed below, we cannot state strongly enough our disappointment that the approval happened without community involvement, especially with well-owners in Lincoln Park. We expect a decision of this magnitude, where private well monitoring will be dropped, to include input from well-owners in the Superfund Site. No Superfund Meeting has been held since June 2009. Also, the proposal was approved between the Community Advisory Group meetings of August 25th and September 22nd, with no citizen participation invited prior to approval. We believe that your program must have been aware of Cotter's wish to make this major change in the GMP prior to the CAG meeting of August 25th, yet there was no good faith effort on your part to bring this new development to the CAG's attention for discussion. We regret that you did not consider it important enough to initiate a discussion.

We expect U.S. EPA and community involvement with the State as lead of the Superfund Site due to the fact that Congress made public involvement in decision making an important part of the Superfund process when the program was established by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. We also expect EPA's involvement in the GMP due to recommendations in the *EPA 2007 Five-Year Review*[3] for an OU2 groundwater remedy and program showing Cotter, the State, and EPA as "responsible" parties.

---

[1] Cotter's Aug. 23, 2011 *Technical Memorandum*: http://www.cdphe.state.co.us/hm/cotter/lpc110823plan.pdf
[2] CDPHE approval September 2, 2011: http://www.cdphe.state.co.us/hm/cotter/lpc110902planresp.pdf
[3] U.S. EPA, September 2007, *Five-Year Review for Lincoln Park Superfund Site, Operable Unit 2*, p. 19: http://www.epa.gov/superfund/sites/fiveyear/f2007080001836.pdf

On September 2nd U.S. EPA emailed *Comments* (See Attachment 1) on Cotter's proposal to Mr. Edgar Ethington of the Radiation Management Unit (RMU). Your September 2nd approval apparently did not either choose or wait to involve EPA, as it does not address any of these comments, including concerns about a lack of technical detail in Cotter's proposal. The EPA letter states:

> "Additionally, EPA and CDPHE did not discuss removal of wells from the routine groundwater monitoring program as mentioned on page 5. While we agree that using wells with known well construction is preferable, we would like to discuss further the impact of changing the sampling frequency of these private wells. The owners of the wells and other community members may have concerns that should be addressed prior to discontinuing or reducing this sampling."

EPA apparently was expecting a discussion and community involvement prior to approval of this plan. Approval to eliminate private wells from the GMP in the near future without community involvement further erodes public trust in the agencies and the responsible party. We believe this approval was premature, did not involve the U.S. EPA, and has relinquished important and final decisions to the Cotter Corporation by failing to base approval on any conditions other than the one mentioned above.

Please rescind the changes to the GMP that were approved on September 2nd, based on a lack of information and incorrect assertions. Please direct your staff to reconsider these questions in a careful and deliberate manner in a process that includes the U.S. EPA and includes an invitation for public involvement and comment.

COMMENTS to the best of our knowledge on Cotter's *Technical Memorandum August 23, 2011* and RMU's *Approval Letter September 2, 2011*:

I. GENERAL REMARKS: The Drilling Specifications, especially for Equipment Decontamination and Waste Management, if followed, will be greatly appreciated. Adding additional wells is welcomed to further delineate contamination and evaluate length of time that remedial actions might take, if EPA and well-owners understand and agree on the new well locations.

We, however, strongly object to replacing or eliminating from the GMP "most of the private wells" (p. 1) [emphasis added]. This approved action will result in the loss of historical data needed for a comparison of long-term trends and essentially ***restart*** the Lincoln Park groundwater contamination analytical process ***decades after the fact***.

Contrary to Cotter's claim, depth, screen interval, and lithologic information ***does exist*** for "most" of the private wells in Lincoln Park. It appears that minimal effort has been made to obtain documented private well information, of which much has been readily available at the Colorado Division of Water Resources (DWR) for decades. This information should have been used to analyze the geology and hydrogeology of this site over these many years. The premise on which eliminating private wells at this late date is based (lack of depth, screen interval, and lithologic information) is false, since well completion information is available for many Lincoln Park private wells. The few wells that lack varying pieces of this information should be kept in the GMP for the historical well sampling information they ***do*** provide over the long-term.

We would further add that 35 percent of the 83 wells in Lincoln Park that were sampled by Cotter in the 2008 Water Use Survey were above MCL for dissolved uranium or molybdenum, or both. All of these wells in total provide the complete picture of groundwater contamination in Lincoln Park, and this history will be absolutely necessary for any decisions regarding remedies and analysis of results. Where well permit records and/or sampling data exist and are available, there is no justifiable excuse for eliminating these wells for monitoring, especially given the fact that well records are available and have been easily found, and monitoring data has been collected for many years.

II. SPECIFIC COMMENTS:

1. Cotter, p. 5, Well Location Map, p. 11: *It is also proposed that once these new wells have been installed and sampled for four quarters, that all of the wells with unknown depths and/or screen intervals be removed from the routine groundwater monitoring program.*

COMMENT: Depth and screen interval information, and copies of original permits and well completion reports are readily available online through "Data Search" or an "Aqua Map" search at the DWR website. Information is also available for Easting and Northing locations, showing that most of Cotter's recordings for these in the Quarterly Well Monitoring Reports are incorrect. (Available online at http://water.state.co.us/DataMaps/DataSearch/Pages/DataSearch.aspx)

Using the DWR online records website, we obtained copies of original permits and well completion reports for eight private wells (See Attachment 2) where Cotter has claimed there is little to no information.

Contrary to Cotter's claim, "most" of the private wells in the Lincoln Park GMP, 12 out of 15, have this information, making them valuable sources for determining long-term contamination trends and for geophysical/lithologic information. In all, there are 15 private wells routinely sampled in the GMP in Lincoln Park (not including Cotter wells 006, 019, 020, or the Shadow Hills Golf Course wells outside of Lincoln Park, or the two springs). Cotter was missing most information on 11 of those 15 wells. Information claimed to be missing for 8 wells was easily obtainable at the DWR. We are surprised that this information was not sought from the DWR years ago. It could have been used to shed light into the hydrogeology of the site long ago, and certainly should be used now.

> **RECOMMENDATION:** Before eliminating any private wells where information is lacking on depth and screen interval, Cotter or the RMU should ask those well-owners for any available information. The four wells (141, 199, 244, 274) where records are not available at the DWR, should be kept in the GMP for historical continuity, or even for data points used in calculating groundwater plume boundaries where it may be appropriate. Since the missing information is available on "most" of the private wells, the RMU approval should be rescinded in regard to the possibility of eliminating any private wells.
>
> **<u>After acquiring the available information on wells</u>**, require Cotter to correct ***Figure 1. Lincoln Park Groundwater Monitoring Locations*** and ***Figure 2. Lincoln Park Proposed Monitoring Locations*** in the *August 23, 2011 Technical memorandum*, as many colored dots give inaccurate information. Cotter should also be required to update and correct the ***Monitoring Well Information*** pages included in their ***Quarterly Water Monitoring Report*** with the appropriate well information.

2. Cotter p. 2: *Data regarding the depth to bedrock within the Lincoln Park Area are limited, particularly further north of the SCS Dam. Most wells completed within Lincoln Park are private wells for which detailed lithologic information is not available.*

COMMENT and RECOMMENDATION: This claim is inaccurate, as it appears that approximately 75% of private wells in Lincoln Park (including 006, 019, 020) do have lithologic information in the ***Well Log*** of their ***Well Completion Reports*** available at the DWR website (see #1 above), and it should be available anywhere Cotter has drilled wells in Lincoln Park. Private wells are valuable sources of lithologic information needed for analysis by hydrogeologists, information that obviously has not been seriously looked for in decades. It appears that only Wells 141, 144, 199, 244 and 274 lack lithologic data. The wells where records may not be available should be kept in the GMP for historical continuity in sampling data used for long-term analysis, and well-owners should be asked for documentation on their wells.

3. Cotter, p. 4 and p. 9: *Figure 2 shows the location of proposed monitor wells (p.4). The schedule for installation of the monitor wells is contingent on obtaining access to the proposed locations. Cotter is currently in the process of identifying the property owners at each of the proposed locations and will request access agreements with those owners. In the event that access agreements cannot be obtained at any of the proposed locations, alternate locations that satisfy the objectives and rationale proposed in this plan will be selected. The CDPHE will be notified of any such modifications to the locations proposed in this plan (p.9).*

COMMENT: This is a proposal by Cotter for locations of new wells, not a final decision by Cotter on the exact locations. We interpret the approval letter as relinquishing the final decision on new well locations to the Cotter Corporation, and as approval of Cotter's proposal to simply notify CDPHE of any changes. This interpretation is confirmed by the only condition required of Cotter in the letter, which was for Cotter, ***within the next four months,*** to "install the wells by January 15, 2012."

> **RECOMMENDATION:** Rescind the approval, requiring Cotter to first determine exact locations of the new monitoring wells, including permissions from private landowners. Exact locations should then be carefully analyzed and justified by the RMU and EPA with a public involvement process before final approval is given to the Cotter Corporation.

4. Cotter, p. 5: *It is also proposed that…all of the wells with unknown depths and/or screen intervals be removed from the routine groundwater monitoring program and only be sampled as part of the 5-Year Lincoln Park Water Use Survey sampling* [emphasis added].

COMMENT A: There is no guarantee that people will avoid exposure to groundwater contamination caused by the Cotter Corporation by avoiding use of their wells, because there is too much uncertainty around disclosure with renters or during transfers of property. There is also a large uncertainty in whether well-owners are knowledgeable enough about the risk of exposure to make informed choices on use of their wells, and due to the fact that people are currently using these wells. Reliance on a 5-Year well survey sampling to inform residents of contamination is not protective of human health. Some of these uncertainties can be remedied by keeping private wells in the GMP. EPA's 2007 Five-Year Review states:

> "Protectiveness currently is achieved through the interruption of human exposure to contaminated ground water by provision of municipal or bottled water, monitoring of private well water quality and semi-annual review of State Engineers records. However, the lack of regular water use surveys, possible intermittent frequency of reviews of State Engineers records

and the lack of formal institutional controls on ground water use creates some uncertainty regarding the protectiveness of the requirements under the RAP and other informal monitoring activities in connection with OU2 ground water,"(p. 17) [emphasis added]. [See footnote 2]

RECOMMENDATION: Due to uncertainties and potential for exposure, and the fact that the Cotter Corporation is responsible for uranium and molybdenum contamination in the private wells, they should not be eliminated from the current GMP, especially if expense is a factor being considered in this decision. Cotter's parent company, General Atomics, purchased the Cotter Corporation and uranium mill in 2000 with full knowledge of the Superfund Site and potential cleanup expense. General Atomics can surely afford the expense for continuing groundwater monitoring of Lincoln Park private wells.

COMMENT B. The *2008 Water Use Survey* (WUS) found 14 additional private wells in Lincoln Park, other than those in the GMP, that had either uranium or molybdenum, or both, at concentrations exceeding the CGWQS of 0.03 mg/L and 0.035 mg/L, respectively. None of those wells were added to the GMP. Only one of those wells was included in the *WUS Second Sampling* in 2009 (Well 226). In addition, 35 percent of the 83 wells in Lincoln Park (inside and outside the previous Water Study boundary) that were sampled by Cotter in the 2008 WUS were above MCL for dissolved uranium or molybdenum, or both. In total, these wells provide the complete picture of contamination in Lincoln Park, and this history will be absolutely necessary to evaluate potential remedies and the results.

RECOMMENDATION: During the public process on this decision, provide an explanation to the public as to why the above mentioned 14 wells were not sampled a second time during the WUS in 2009, and a justification as to why some or all of these wells should not be included in the GMP.

5. Cotter, p. 1: *Access to the many of wells may be limited due to seasonal factors (winterizing) and existing plumbing and pump assemblies.*

COMMENT: Cotter's generalization, claiming that access to "many" of the private wells is limited, is again inaccurate. Only five wells (114,129, 173, 231, 274) fall into the category that generally are not sampled in the 1st and 4th Quarter of each year. A great deal of trend evaluating data would be lost if these wells were eliminated. For many years the Cotter Corporation assured residents that the Lincoln Park private wells only needed to be sampled once a year, in the summer months, though many experts have argued that irrigation water often diluted the contamination in the wells in the summer. Fortunately, EPA requested more frequent quarterly sampling in the early 2000's, providing a much better source of data for analysis from most existing wells. It is disingenuous and somewhat questionable for Cotter to now demand rigorous seasonal criteria for private wells to qualify for the GMP. Any new wells meeting rigorous criteria are welcomed; but, eliminating private wells with whatever information they provide, because they do not meet seasonal criteria, is not reasonable and should be denied.

RECOMMENDATION: Rescind the approval to eliminate private wells due to lack of access during winter months or plumbing and pump conditions. Instead, require that Cotter offer private well-owners the opportunity of having their wells improved, at no cost to the well owner, so that plumbing and pumps are functional, and access to measure depth to water and access during winter months would be available in the current GMP.

6. Cotter, p. 1: *Cotter proposes to replace most of the private wells currently included in the Cotter GMP with wells installed specifically as monitor wells (p.1).*

COMMENT: As stated, we are opposed to replacing private wells, and also see a need for more analysis on the choice of potential locations for new wells. For example, Well 129 and 206 have higher concentrations of contaminants within the plumes. A new well is proposed near Well 129; but, no new well is proposed near Well 206, even though that well is closer to the northernmost boundary of the U and Mo plumes. In fact, no new well is proposed at the center of the northernmost boundary of the plumes. In order to calculate plume boundaries, one needs two wells close to that boundary, one higher in concentration and above the MCL within the plume, and another lower than the MCL and outside the plume. Well 206 is the best well above compliance standards available for that analysis in this location, yet monitoring would be stopped for this well per Cotter's proposed and approved plan.

> **RECOMMENDATION:** Rescind approval for replacement of existing wells and Cotter's decisions on new well locations until the EPA and affected parties in Lincoln Park have been offered an opportunity to evaluate and comment on the number and placement of additional monitoring wells in Lincoln Park.

IN CONCLUSION:

We are in strong agreement with the proposal to drill additional monitoring wells in Lincoln Park under the conditions that the logic and rationale for well location are clearly explained and understood by the U.S. EPA and residents of the Superfund Site in Lincoln Park, and that permission to drill on private landowner property is obtained in advance of any such plan approval.

We just as strongly object to the integrity and validity of a CDPHE process which would approve this plan without EPA involvement (to the best of our knowledge) or public involvement on such a major change in direction for well monitoring in Lincoln Park. Decades of well sampling in Lincoln Park has yielded important historical trend data on well contamination in the very wells owned by the impacted private parties in Lincoln Park. There is no rationality or sanity in eliminating any of this important historical information.

Finally, we are disappointed in the lack of due diligence on both Cotter and the RMU's parts in the GMP development, submission, review, and approval, especially in light of the September 2nd U.S. EPA comments on technical shortcomings. It appears that for decades Cotter, Cotter's hydrologists, and the regulatory agencies, which the public depends on for credible monitoring and control of this process, have not diligently researched well information at the Colorado Division of Water Resources, or from all of the private well-owners. The erroneous assumption that this information was unobtainable has led to a questionable approval to eliminate wells from further groundwater monitoring when private wells did in fact have decades of historically valid information. When ordinary members of the public, in a matter of a few days, can gather such information, it brings into question just how carefully this plan was reviewed, questioned, or validated before being approved.

Please rescind the changes to the Groundwater Monitoring Program that were approved on September 2nd based on a lack of information and incorrect assertions. Please direct the CDPHE staff to reconsider these questions in a careful and deliberate manner that includes the U.S. EPA and an invitation for public involvement and comments.

As we are sending this letter via email, please confirm that it was received. We look forward to your response and assistance in this matter.

Thank you,

FOR THE CCAT BOARD OF DIRECTORS

Sharyn Cunningham, Co-Chair
sharyn@bresnan.net
(719) 275-3432

Carol Dunn, Co-Chair
rcdunn@q.com
(719) 275-2822

cc: Christopher E. Urbina, Executive Director, CDPHE
Martha E. Rudolph, Environmental Program Director, CDPHE
Edgar Ethington, Radiation Uranium Group, CDPHE
Bill Murray, Program Director, Remedial Response Program, USEPA Region 8
Fran Costanzi, Remedial Project Manager, USEPA Region 8

Att:
1. USEPA Comment Letter of September 2, 2011
2. Compilation of Colorado Division of Water Resources Well Records