23350 Lake Manor Drive, Chatsworth, CA 91311

April 15th, 2009

RE: CDO and WDR for NPDES permit and related documents
Santa Susana Field Laboratory
CA0001309 Cl NO. 6027
CDO R4-2009-00XX

Ms. Cassandra Owens
Chief, Industrial Permitting Unit
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Dear Ms. Owens,

The following are our comments on the recent documents provided regarding the NPDES Permit issues for the Santa Susana Field Laboratory. We appreciate the summarizing letter dated March 25, 2009 indicating the various requests submitted by the discharger to the board and will start with our comments on this list of requests:

1. We continue to be surprised by the continued effort to look-less in requesting that sampling by discontinued in areas where associated buildings were recently demolished. There is a reasonable potential for mobilizing constituents of concern during these processes and especially during the recovery and re-vegetation periods, it would seem most prudent to sample these areas in order to be able to understand the effectiveness of the soil and/or source removal and implemented BMPs and their effectiveness. The response to this is unclear. "The provision was not included" and that the benchmarks will now serve as the effluent limits?
2. Additional time is not appropriate as the needed time for sampling, analysis as well as public process are considered within the schedule.
3. It is completely inappropriate to perform a reasonable potential analysis on a quarterly basis when most of the year remains dry. The continued effort to remove compliance rather than removing contaminants is disturbing. We appreciate the boards' denial of these requests and caution that the re-opener based on the SIP deadline of May 17, 2010 should not be reason to further extend the compliance schedule. Further, the reopener that has been included in the order allows for modification or rescission of the implementation schedule, but modification should included potential to extend the schedule.

Cease and Desist Order No. R4-2009-00XX

Background, 3 – Insufficient and underplays the significance of nuclear accidents such as the SRE, AE-6, and SNAP programs and the potential radiological contamination that may have migrated down these drainages through stormwater run-off.

John Pace, a former worker at the Santa Susana Field Lab specifically at the SRE complex as a reactor "trainee" in 1959 and was there on the job, the morning after the accident happened. He was extensively involved in the clean-up activities that took place at the time, and the multiple fuel handling accidents that occurred whilst they tried removing the fuel rods that suffered "damage" from the partial meltdown. 17 of 43 fuelrods where melted, cracked or both. During the effort to remove these rods, some of which took several shifts to accomplish, all the while, contamination rose from the reactor core. He also describes activities that include the burning of primary sodium and several other accidents that resulted in the contamination of records and the entire office space that existed at the SRE. The contents of these offices, including work and experimental records, were lost due to contamination where they records were removed, and left outside at the rear of the facility to decay in the open environment. The contents included personal items such as a ladies coat, and baby pictures, etc. that would not be discarded without absolute certainty of the massive contamination occurred. The discussions with Mr. Pace took place at ACME with both Gregg Dempsey, Senior Science Advisor, USEPA's Las Vegas Office of Indoor Radiation, as well as Laura Rainey, Senior Engineering Geologist of DTSC responsible for the RCRA review at the site. Our time with Mr. Pace extended several days and the following is a short excerpt to introduce this important information, which should be included in the "Background" portion of these documents and throughout the NPDES process as it applies to the SSFL[1]

While the Order applies specifically to outfalls 8 and 9, the finding of contamination and subsequent Imminent and Substantial Endangerment Determination and Order, and Remedial Action Order[2] that was issued November 1, 2007 by DTSC's Norman Riley. This removal action is directly relevant to the source removal action being contemplated now. The removal of these harmful materials demonstrates "reasonable potential" and yet, the polluter continues to ask for reasons to remove these harmful COCs from the sampling list.

[1] http://cleanuprocketdyne.org/acme_movie_night.htm to download footage of the interview with Mr. Pace and ACME and Gregg Dempsey of USEPA and Laura Rainey of DTSC.

[2] Docket No. I/SED 07/08-002 – Health and Safety Code Sections 25355.5(a)(1)(B), 25358.3(a), 58009 and 58010 with Boeing and NASA: respondents. Relevance: this order is specifically based on the Northern Drainage, which leads to Outfall 9. During the investigation of and removal action related to the ISEO, more than 1100 igniters were found buried under an oak tree in the same drainage, also relevant. Also not mentioned in the document title, that antimony and asbestos were also found buried in the creekbed further downstream, but upgradient from the Outfall 9 sampling location.

All removal actions related to these areas must be considered when determining reasonable potential analysis, and all COCs detected during those removal actions should, at a minimum, be included in the sampling monitoring program applying numeric limits. Benchmarks should only apply when a constituent is being actively remediated, and only during the course of that remediation and/or removal action process. Since the COC's found during the ISEO are certain, rather than merely "potential," numeric effluent limits should apply to all.

Background, 5 – TCE use and resulting contamination is not adequately described here. Sampling for vinyl chloride is not mentioned when it is the most toxic of the breakdown decay products of TCE.

Additional considerations regarding the TCE contamination at the site: The groundwater treatment system was part of a "long term agreement" in exchange for 148.5 million for the clean-up of the site, that was awarded to Boeing in 1998 with an estimated completion date of 2006. Now, in 2009, the characterization has only just begun with clean-up only having taken place in small interim measures, we feel it important to move forward in minimizing the impact to the environment through time, but accurate delineation and acknowledgement of prior activities MUST be done properly based on all available information. In 2000, that same system was shut off, to "observe the impact on the local aquifers" which is far short from the promised "long term" program. Today we have a different agreement in place with a new groundwater treatment coming, but long over-due. The reasoning provided for the long delay in building the much needed groundwater treatment system is due to the long County Permit process. For this reason, we think it only appropriate that the Ventura County representatives responsible for issuing these permits be provided copies of all correspondence about this process.

These related issues regarding conditional use permits and certainly demonstrates a legitimate need to cross-copy all correspondence with DTSC as they are responsible for the surficial soil contamination clean-up process.

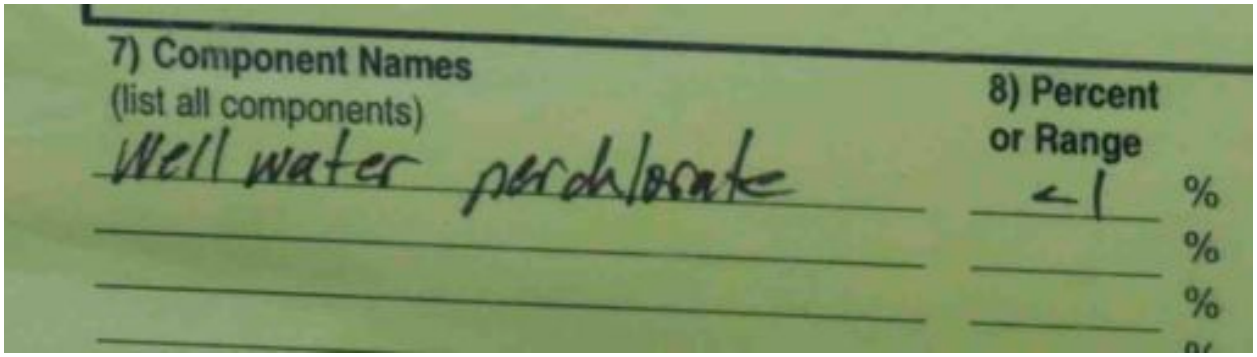
TCE contamination is incorrectly estimated in these documents, which underplays the potential impact to surface water run-off through contributing seeps and springs. The figure 530,000 gallons of TCE is incorrect as it is based on a number of either 30,000 rocket tests or as described in the TechLaw report:

> According to "The First 25 Years," 150,000 rocket engine tests had been completed at SSFL by 1962 (RCK 32534), and 200,000 such tests by 1964 (RCK 32538). The timetable prepared by Rocketdyne's Environmental Division also indicates that SSFL had done 150,000 rocket tests by 1962 (see Figure 7; RCK 04268). Nevertheless, when preparing calculations of the amount of TCE discharged to the groundwater as a result of engine flushing, the Environmental Division based its estimates on a total of 8,000 engine tests (ACE 05756).

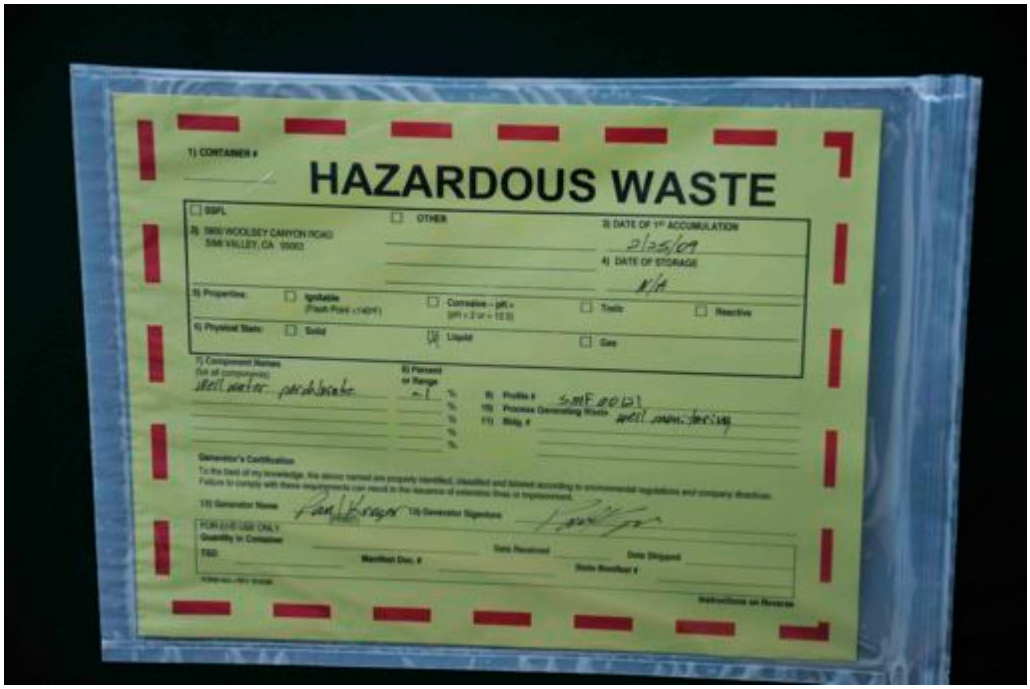
Since these figures are being used to model and calculate the needed pumping and other treatments that would effectively remove the contaminant, it is necessary to be sure that accurately reflected usage is recorded here. With estimates that are underplayed by 100-fold as it appears to be here, we have no shot at actually remediating the problem. We must first acknowledge the problem accurately so that appropriate methods of remediation can be considered.[3]

Recent high concentrations detected near WS9a where pumping activities to "dry out the seep" have taken place, are indicative of preferred pathway that may not be readily apparent. Severe contamination is visible at the R2 Pond which has recently been drained during the ongoing water reclamation management program where stored water is containerized at various locations at the site including one that is adjacent to the R2 Pond where the pumping has occurred. In addition, both "trace solvent" water and "purge water" containing both Perchlorate and TCE were observed that are believed to originate at outfall 18. Perchlorate and TCE levels on this side of the site are not well understood.

Stored water is marked "Outfall 18" which leads us to question the perchlorate detections that have occurred and the believed source for those detections



[3] 1990 TechLaw, prepared for Army Corp of Engineers for Air Force Plant 57, also known as Area II under contract DACA45-89-D-0512



Discharge History for Outfalls 8 and 9

Happy Valley Interim Measure that took place several years ago, should also be considered

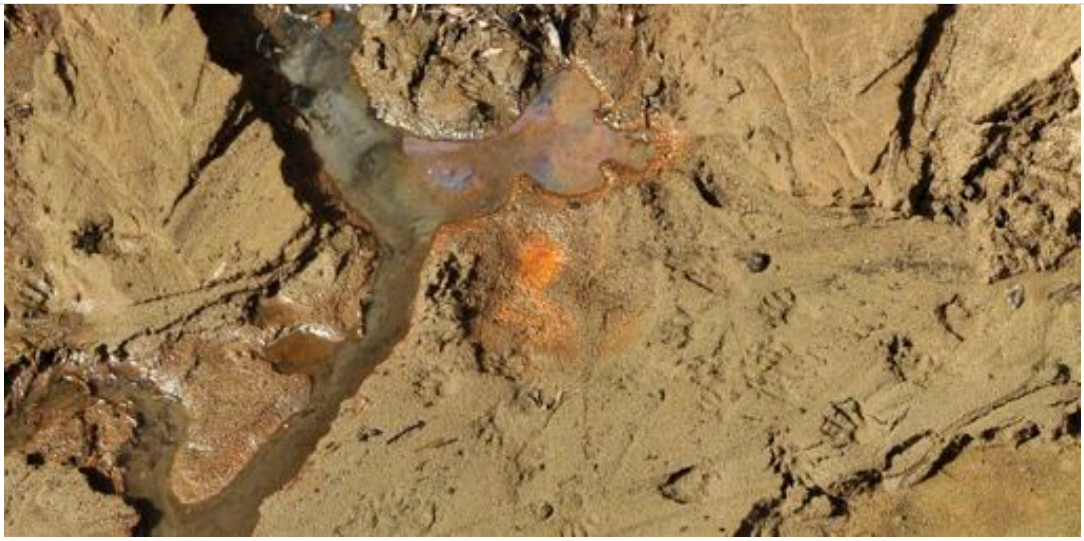
here as should the fact that perchlorate bio-remediation took place in an area that flows to Outfall 9 based on some existing stormwater runoff pipes, so perchlorate should be considered at both outfalls. We are pleased to hear that the area has had compliance with the perchlorate effluent limit, but since there remains a perchlorate plume subsurface in the building 359 area, there remains a groundwater contamination risk and subsequent surface water risk due to seeps and springs. In addition, the stormwater drainage from the adjacent APTF area does drain to the Northern Drainage and should be considered a potential migration pathway.

Stormwater Drainage pipes and reclamation pipes lead previously down into the Northern Drainage Creek area (removed post fire in 2006), therefore historical documentation and aerial photographs should be used to determine sources of these pipes which may have contributed to historic contamination of surface soils through repeated releases over the course of decades of operations.

Area II Landfill also received waste from the Canoga Facility when it was Air Force Plant 57 according to the TechLaw report, therefore all recorded wastes from Canoga should be considered COCs at this outfall.

It should be noted in the discharge history that dioxin violations for the TCDD congener had exceedences BEFORE the 2005 fire which has been blamed for much of the dioxin problems at the site despite the fact that these concentrations are not consistent with that of burned vegetation, but rather from burning operations as existed at the site.

Review on December 13th, 2006 resulted in the removal of outfalls 1 and 2 as compliance points. It should be noted that while the CDO does not allow for discharge of pollutants, the removal of outfall 2 results in stormwater from Area IV via the STL IV area (located in Area III) will be missed from compliance regulation. In reviewing this area with DTSC and Boeing on a recent site visit it was also noted by DTSC's Ms. Rainey that similar detections of Barium and Sodium are consistent with Area IV detections and sheet runoff should be considered here. During another recent visit to review portions of the NASA property, it was noted that the R2 Pond had been drained and therefore, the bottom sludge material would be mobilized at the next storm event. We would suggest that this area be sampled so that COC's at the receiving outfall (2) can be compared. The bottom was noted to be oily in appearance, in addition to rust and other unnatural colors:



R2-Pond Sludge depicted after recent rain event with oily appearance and raccoon prints throughout area.

Visible rust staining of soil/sludge that may now be mobilized as it is no longer the bottom of a pond, but surface water run-off.

The pipes at this overlook were leaking and appeared to be the source of the discolored water below. These pipes are used to move water to AND from the pond, connecting the R2, Silvernale and other ponds with a system that move water both to and from these ponds.

Foam observed at a second influent flow leading from what is believed to be the upper pond.

It is noted in the waste discharge requirements that foam is never considered acceptable.

Foam has been observed at Sage Ranch Northern Drainage during each of the recent rain events (last three years)

21. December 13th Draft Order discusses review to "ensure that numeric effluent limitations for different outfalls do not count the same violation twice in such a manner as to treat a single violation as multiple violations" where outfalls 1 and 2 were removed as compliance points. It should be noted that by sampling from the lowest outfall (1 and 2) upwards, it would be impossible to double count any single violation. By removing these outfalls as compliance points, the board runs the risk of potential stormwater contaminants reaching sensitive receptors such as people and local wildlife. Please note in the aforementioned series of photographs, there are raccoon prints throughout the pond bottom.

39. Data collected since adoption of Order R4-2006-0008 and 0036 provide new information about the discharge including the concentrations of contaminants in the discharge. This should also apply to the known findings of COCs throughout the aforementioned ISEO process.

Groundwater treatment and related decisions made on the ISRA and CDO and general WDR issues as well as all related documents should be copied to the County of Ventura who will assume lead agency position for the Groundwater Treatment system that is in part, related

to the decisions being made here. On the basis that those CUP approvals may impact the schedule and ultimately the ability to comply with the permit, we urge the board to invite their involvement in the process to help expedite and provide the necessary broad view to the permit approval process.

Please be sure that final order includes all COCs related to all activities at outfalls 8 and 9 including recent removal actions under the supervision of DTSC for soil and waste/debris removal under the ISEO issued 11/1/2007.

Revised Tentative Board Order – Waste Discharge Requirements (WDR) R4-2009-00XX:

Background and Description of Facility

Expanded site history and facility description using all available HSA information should be expanded here as well.

Please note TCE usage conflicts under Rocket Engine and Component Testing as noted under TCE comments above.

Finding 33 - does not adequately state the drainage from the APTF area as there is an existing storm-drain that exits toward the Northern Drainage. It is not clear when this was used or if it is active now, but this potentially contributes to the exceedences at outfall 9.

Finding 35 – Stormwater only as described here, still runs across potentially contaminated surface soils with the potential to carry with it, the contaminants on the surface.

003 RMHF Drainage was found to be the most highly contaminated area on the site, based on the aerial radiation survey done in 1979. The drainage area was unlined spillway for years that led to a pond below, and later replaced with a pipe leading to a Baker Tank. The pond area continues to have point-source problems.

004 SRE continues to have mercury problems and the lower pond held contaminated sodium that was released to the environment. Temporary “hot” storage in the hillside also had potential for migrating to the drainage below.

005 SPB-1 Sodium burnpit where an interim measure was completed, but final closure has not been done. In recent characterization during the Group 7 review of this area in the RCRA process, a lower drainage “debris field” where drums were disposed, was defined and is undergoing further investigation.

006 SPB-2 (same as above) and also receives runoff from the ESADA area across the street from the FSDF area. This was another ‘shooting range’ where highly penetrating materials were used.

007 B100 this outfall misses the stormwater run-off from the Building 56 Landfill and Building 56 Landfill Excavation areas entirely. A special request for sampling was submitted and Board staff agreed that sampling was necessary to this area that has undergone very little investigation even though there is a groundwater connection and drums and other debris was observed. The depth of the debris

inside this 50ft deep hole is unknown and we have interviewed former workers who have stated that this hole was used for waste disposal. We realize that very little stormwater flow has occurred but would like to reiterate the importance of understand the impacts coming from this area, potentially to the people below.
009 is the subject of the CDO and therefore completely inappropriate to be listed here as "stormwater only" when clearly there has been a chronic problem and point-sources have been identified from the southern portion of the ELV facility where the "burn run-off" pond is located. Ash Pile and STP area also upgradient from this area, as is the Area II landfill which is steep and unlined.
010 Building 203 is also where plutonium was found during the McLaren Hart Study done at the site.

Pictured above is the top of a drum on the surface of the Area II landfill.

Finding 41 – Groundwater Treatment System has been in "design" mode for nearly 5 years due to permitting issues. We think it's only appropriate that the Ventura County representatives be present at all meetings and receive copies of all correspondence within the ENTs and groundwater system building and regulatory processes. It is not clear where contaminated water/purge water is taken.

Finding 44 – The R2 a and b ponds are currently empty as detailed in the images pictured in previous pages.

Finding 50 – Perchlorate found at the site and offsite have been in astronomical amounts. 62,000,000 ppb was found in Dayton Canyon during an environmental investigation on neighboring land slated for development where Happy Valley is directly upstream. 90% of all perchlorate manufactured is used for aerospace/defense purposes. In addition to use as a solid rocket propellant, they also manufactured perchlorate-based flares at the SSFL which could also explain these multiple findings.

Reasonable Potential Analysis

The software used to determine reasonable potential analysis was done by SAIC Science Applications International Corporation who is also a contractor for the Boeing Company for the radiological study being done on behalf of the Department of Energy. A Conflict of Interest disclosure check should be required here.
It is inappropriate to conduct a RPA on the teststands as indicated in finding 69 on the basis of operations having ceased when there is also legislation being pushed forward to "save the test stands", demonstrating a secondary conflict of interest in this request.

Finding 73 - discusses the release of 530,000 gallons of TCE where our evidence points to this number being 10-100 fold higher.

Finding 77 - indicates that PAHs and PCBs did not have reasonable potential even though they were both detected above the MCL during the ISEO cleanup process.

Finding 81 – states that discharges are "very similar" at outfalls 008-010 as those at other stormwater locations (outfalls 003-007) and therefore the analysis was combined as one evaluation for all stormwater only discharges. This is inappropriate as significantly different operational activities occurred. We would ask that the "similarities" be described in detail as we believe that the priority pollutants at the different locations will vary significantly.

It is extremely disturbing that almost no data exists for outfall 008 other than perchlorate when off-site contamination has been a problem, and interim measures recovered buried debris included unexploded ordinances.

Outfall 009 is inappropriately considered "stormwater only" when several operational areas contribute to the water quality issues at this outfall. Any effort to combine data for the purpose of "reasonable potential analysis" is inappropriate at best, as this will underplay the existence of other pollutants on the basis that there is no data.

Outfall 010 is where plutonium was found. In addition, the drainage where the plutonium was found runs below where outfall 009 would monitor the stormwater runoff so the area where confirmed contamination exists, is effectively without regulation.

The idea that a reasonable potential analysis was performed on outfall 009 and asbestos, PAHs and PCBs and antimony were not identified despite the need for a removal action of these particular COCs, leads us to believe that this RP analysis was not completed using all available data that is relevant to the outfall discharges.

REMAND:

The requirement to remove two outfalls as detailed in finding 88 was inappropriate. Duplicate counting of violations would simply not be possible if the analysis worked its' way up the hill from the lowest outfall to the highest. The removal of an outfall does not remove duplicative counting of violations, but does allow stormwater runoff to leave the site unchecked – a problem that has been chronic for decades. This decision should be reversed now that it has been confirmed that stormwater leaving at STLIV will not be monitored without the replacement of outfall 2 as a compliance point.

Compliance with Benchmark triggers is already not working as the reasonable potential analysis described for outfalls 8, 9 and 10 combine the results despite the operational differences resulting in impacts that are quite varied. How can benchmark triggers work if data is combined to fill in gaps in missing data. The only appropriate analysis of these outfalls should be by way of sampling analysis of all priority pollutants. Removing any pollutants off the list based on combined datasets is inappropriate.

Please note that vegetation impacted by the 2005 fire has ALREADY recovered and any claim to the contrary is simply inaccurate.

Potential for mobilized contaminants from the R2 Pond based on rain events impacting the newly drained pond where the sediment bottom may be carried with moving stormwater.

Finding 95 – states that flow from Silvernale pond traverses two other RFI sites prior to entering the R2 Pond but this flow is carried via pipeline so no traversing would exist and so to blame the traversing of other RFI sites as potential for the violations to be "double counted" has no basis and is without merit.

Finding 96 – Stormwater Expert Panel went beyond the scope of the ENTS they were asked to develop by submitting white papers on regulatory issues such as numeric limits and extensions on regulation, rather than solutions that will reduce the impact on the quality of receiving stormwater.

Finding 97 - ISRA Schedule of three years is more than adequate considering the estimated scope of work outlined in the workplan and any extension of the compliance

schedule would be inappropriate.[4] Please consider our comments as provided within the ISRA workplan here.

Effluent Limitations as stated for outfall 11 are for stormwater only even though this area traverses the Area 1 Burnpit which is currently unlined and received and burned toxic waste at this location for decades and this area not has undergone several interim measures and most recently – December, 2008 a radiological scan conducted by DHS revealed Radium as levels above background. This finding has not been adequately explained or dealt with, and therefore must be considered in this context.

Effluent limits should NOT be limited to wet weather discharges as the polluter has the ability to release water at any time and has been found to do so in the past through sprinkers for "aeration"

With sincere thanks for your time and consideration, we appreciate the opportunity to participate and be heard within the process.

Sincerely,

Christina Walsh
Cleanuprocketdyne.org, founder/director
ACME Aerospace Cancer Museum of Education
A project of the International Humanities Center
and made possible by the Annenberg Foundation
http://www.ihcenter.org
http://www.annenbergfoundation.org

Cc: Tracy Egoscue, Deb Smith, Peter Rafferty, Michael Levy, David Hung, Dan Hirsch, Norm Riley, Damon Wing, Marie Mason, Dawn Kowolski, Holly Huff, Barbara Johnson, Elizabeth Crawford, Louise Rishoff, Aron Miller

[4] ISRACommentsCURO.pdf submitted 4/1/09 regarding limited constituents of concern being considered during the source removal process