

Garrett

Date: Sun, 14 Jan 1996 09:13:00 -0500 (EST)
From: Benjamin C Garrett <garrettb@battelle.org>
To: msm@wjh.harvard.edu
Subject: Address & CAL

Matt --

MAILING ADDRESS. My mailing address is: 10704 Cogswell Place; Fairfax Station, VA 22039. The phone number is 703-978-1873. I do have FAX capability through my computer, but that capability is not on-line continuously. I need to make some system upgrades, which are part of my "I'll do that soon" list. Oh well.

CAL. CAL is still alive. Planning is underway for more CAL activity in 1996, but I don't know exactly what. The Corps of Engineers has responsibility at this stage and is treating the CAL as though it were merely a building renovation project. I view it differently, as my biased phraseology implies.

The next steps for CAL include more surveys of the site (to be GosNIIOKhT, in Moscow) to pin down renovation requirements; preparation of an RFP for "work" of some sort; and, possibly, award and start of work in response to this RFP. Because Battelle and Bechtel wish to participate in CAL, I have had to exit the room when the USG and GOR get around to specifics, so my inside knowledge is limited -- thank goodness, perhaps.

Here are a few observations, though.

1. The Corps of Engineers (COE) is treating CAL as a "monolith" rather than a capability. That is, the current thinking in the US Army and DOD is that CAL = a big building, with white-coated scientists and hyphenated instruments littering the floors (the scientists being the bigger source of litter). I view CAL as a capability, much like CDC, which does have a headquarters (in Atlanta), but uses satellite labs for certain work and engages in various outreach functions. Dupont Durst feels similarly, but our views get little notice by COE or DOD.
2. CAL moneys have been spent on RAJEP, for instance. Some (perhaps most) of the instrumentation costs came out of CAL funds. I view that as good -- progress. Others are less certain.
3. Control of CAL is a highly charged issue. Russian MOD wants control of CAL. The Russian PC, which finds itself in a greatly weakened position, does, too. Common gossip in Moscow was that the Vernadsky Institute was overruled as a site for CAL because of MOD and Moscow City Government opposition to having a US funded presence on such a prestigious street -- so close to the dachas of Moscow's elite. [This location is prestigious and home to many dachas that make the Newport, RI, cottages look like shacks. There is even a four-story dacha belonging to Gorbachev -- a gift from a grateful Party Secretary Gorbachev to Citizen Gorbachev.]

GosNIIOKhT is the MOD candidate to be CAL because GosNIIOKhT is under MOD's thumb. That means MOD controls GosNIIOKhT, much the same way an institution in the USA becomes controlled by its major source of funding. But the reverse is not true -- GosNIIOKhT does not influence MOD. Therefore, GosNIIOKhT scientists are not the same as MOD scientists. Most GosNIIOKhT scientists are wedded to MOD, and in some cases GosNIIOKhT staff are merely MOD folks on loan. But the

GosNIIOKhT folks have limited influence on MOD CW R&D.

I know, for instance, that MOD has other labs where they are pursuing CW R&D and that GosNIIOKhT staff -- including Sheluchenko -- are unaware of the work, the staff and the lab capabilities. I learned of this by asking questions of the most talkative group in the world: Salesmen. In particular, by asking questions of instrument company salesmen in Moscow, I learned that there are two labs -- one in Moscow, the other in Shikhany -- doing CW R&D using state-of-the-art GC and NMR equipment. I learned, too, who is using that equipment -- the MOD folks we dealt with, not the GosNIIOKhT folks. Sheluchenko was (and still is) unaware of these capabilities; I asked about the skills of his staff, and it was obvious his staff knew nothing about GC/AED (a rather modern technique). Yet Hewlett-Packard has installed two GC/AED units -- one in Moscow and the other in Shikhany. The operators of this equipment were Colonels Pakhomov (you met him, I think) and Grigoriev (you didn't meet him). Both denied knowing anything about the instruments other than from a theoretical standpoint, but the HP salesman knew of them as the POCs for delivery. Later on, I met the woman who had installed and maintained the instruments -- and she knew Pakhomov and Grigoriev. (She was supposed to participate in our work at Saratov, by the way. She did participate at Edgewood. But she never showed up in Saratov, and the excuse was "Who knows? She's a woman.", which seemed reason enough to the Russians.)

Therefore, the short answer is "MOD will control the CAL".

4. As to the criticism of Congress re: Why spent US dollars to fund a secret Russian CW R&D effort, I have no good response. I think we (the USA) have a far better chance of knowing about the Russian CW R&D program if we fund CAL and maintain a working relationship with Russian scientists through CAL than we would if we stopped working with the Russians. That rationale, though, is unlikely to sway votes.

I think the Russians will have a CW R&D program no matter what -- just as we will. We do better to maintain contact than to throw up barriers.

RAJEP REPORT. I have been immersed in writing the technical report on RAJEP Phases 1 and 2. The job has turned into a writing task, rather than an editorial one. The quality of materials from my Russian and American colleagues is such that a rewrite has been in order. I have spent time tracking down evidence of what actually done -- sort of hard with the rather disorganized mass of 1,000+ pages I have. Even so, I fear the report will contain some gaffs and omissions. But it's early, and I don't want to spoil your surprise when you finally get the draft report for review. I do want to pass along one exchange with the Russian side, though, that is amusing -- and illustrates the gulf between American and Russian scientific traditions (or, at least, those traditions as manifest among the GosNIIOKhT and MOD crews).

One of the observations you brought up in Saratov dealt with losses during the bituminization process. You commented on the fact that some 5% of the total mass was "lost" -- unaccounted for -- and how this fact did not line up with the statement that "there were no losses of gaseous emissions during the process" (or a similar sentiment, differently stated). In other words, that missing 5% could be losses due to high volatility components that slipped through the bituminization reaction cold trap.

I thought your observation was reasonable. My choice would have been to install a dry-ice or liquid nitrogen cold trap to collect the low molecular weight / high volatility components. But such traps are notoriously difficult to use and require lots of skill -- OK, a bother and a challenge, but still in the realm of the doable.

The Russians took another approach. They pronounced the 5% losses as "routine and ordinary" (which they may well be) and therefore, no high volatility components came off (which is not supported by the data). Except, to the Russians, this last statement is supported by the data -- because the fact that such losses are routine rules out the prospect that the losses are highly volatile chemicals. Go figure. I will be in Russia after January 22, and I plan to pursue this issue with my colleagues. I think we see things differently, though.

Best regards,
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