

US EPA ARCHIVE DOCUMENT

STAN KOVELL

EPA Staff Member Who Initiated
EPA's Contract Lab Program



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EPA Interviewer: We're in the Crystal City Gateway Offices of the Environmental Protection Agency. Today is October 5, 2005, and we're interviewing Mr. Stan Kovell, who helped create the Contract Lab Program for the Superfund. Thank you for being with us today.

Kovell: You're welcome.

EPA Interviewer: Just to get started, I was hoping you could start out [with] where your education was and how you first came to EPA.

Kovell: I earned a degree in chemical engineering from Northeastern University in 1955. I then went into the United States Army and got six months of advanced work in electronics and nuclear weapons systems before being assigned as a special weapons officer at the Sandia Special Weapons Depot in Albuquerque, New Mexico. After being discharged from the Army, I went to the George Washington University Law School at night. At the same time, I had a full-time job in the private sector doing quality assurance work and implementing the chemical production processes used to manufacture half of all the printed circuitry used by the Minute-Man ballistic missile program. During this time, I also organized and managed an analytical laboratory used to assure the quality of the product being produced. Little did I know at the time, that combination of my work experience and legal education during this period would be so useful to me two decades later.

In 1964, I received my Juris Doctor degree, was admitted to the Virginia State Bar, and left the private sector to work for NASA [National Aeronautics and Space Administration] at the Goddard Space Flight Center. At Goddard I had various staff and line assignments involving contracting and/or technology in one form or another. In 1975, I left NASA for a job in EPA. In 1988, I retired from the government, worked as an independent consultant for 10 years, and permanently retired in 1998.

EPA Interviewer: I bet you enjoy retirement.

Kovell: I've enjoyed everything.

EPA Interviewer: What was your first job at EPA?

Kovell: My first job at EPA was as the Chief of Procurement Policy.

EPA Interviewer: For which office?

Kovell: It was in the Office of Administration and Management.

EPA Interviewer: Do you remember what time frame that was?

Kovell: I joined EPA in October of 1975. I held the policy job for about a year, after which I was promoted to serve as the Chief of the Headquarters Contract Operations Branch, which was responsible for doing contracting for all EPA Headquarters elements and the EPA regions. The branch only had about 60 people at the time, so you can see how EPA contracting has grown in the last 30 years.

EPA Interviewer: So when was your first introduction to the Superfund program?

Kovell: My first introduction to what would be my Superfund work came long before there was a Superfund program. An advantage of my contract management position was that I had great visibility into most of programs in the Agency that were supported by contracting. I had also brought with me from NASA an attitude regarding the use of contractors that was not widely shared by my EPA program colleagues. NASA had sent men to the moon, in addition to its other missions, by using 80 percent contractor personnel. The people in NASA were quite comfortable interacting with contractors and very confident in doing so. NASA had a culture of viewing the contractor community, the private sector, as a national resource. That was not the culture I found when I came to EPA. The EPA culture was just the opposite, where contractors were generally tolerated, not welcomed. EPA elements generally preferred using civil servants in lieu of contractors. So there I was, a government contracts manager with a chemical engineering-legal background, and having a non-conforming attitude regarding using the private sector.

In the 1976 time frame, a couple things happened that would have an important impact on future Superfund contracts. The first event involved a requirement from Ken Biglane, the Director of the Oil and Special Materials Division. Biglane was recognized as the nation's pioneer in responding to and cleaning up oil spills. He had organized regional teams that were competent, dedicated, and enthusiastic towards their mission. As a result of Biglane's success, Congress funded a major expansion to the program. The problem was that the funding could only be used to pay for contractor support. The dollars could not be used to expand civil service staffing. The regional response teams were furious, but Biglane had no choice. But, instead of articulating his requirement by demanding that the contracting officer implement his favorite kind of contract, as many EPA programs did at that time, Biglane called me over and said, "This is my problem. How do we fix it?" That was a wonderful breath of fresh air. Biglane clearly described his requirement, and it was instantly clear to both of us that the contract type would not be a problem. NASA and the EPA had both used level-of-effort contract types that would be suitable for the requirement. The only problem remaining on the table was to get the regional response teams on board.

EPA Interviewer: Because they wanted to do it in-house?

Kovell: Yes. Biglane asked for my help in convincing the regional response teams that there were great advantages to augmenting the civil service staff with contractor personnel. I also

had to train them how to competently participate in the contract award, management, and administration processes.

Biglane organized a meeting in Seattle with his Headquarters staff and all of these regional response team leaders. I designed a workshop intended to have the participants go through all the elements of awarding and administering a typical level-of-effort service contract. In order to facilitate easy interaction among the participants, I structured the requirement to be the acquisition of a professional basketball team to play the Soviets. Now the reason I did this was to avoid discussing anything associated with the participant's day-to-day work. It was important to avoid embarrassing anyone. By talking about basketball and the basketball players of the day, we had a lot of fun and accomplished our mission.

EPA Interviewer: This basically was an icebreaker for the meeting.

Kovell: Yes, the workshop worked remarkably well. I then stepped out of the picture, and Biglane's staff, with the full participation of the regional teams, prepared the appropriate documents for contracting officer action. The procurement process was routine and resulted in the award of the first Technical Assistant Team (TAT) contract. This was important because the contract itself became the model for many other service contracts that are still in use by Superfund today. TAT was also important because it created a regional infrastructure capable of supporting Superfund years before the creation of Superfund.

Unfortunately, the contract process for what would be the precursor for Contract Laboratory Program contracts did not go as smoothly for a variety of technical, administrative, and bureaucratic reasons.

At about the same time as the TAT program was being implemented, my Contracts Branch received an interesting procurement request from the Effluent Guidelines Division. The requirement was for a large number of chemical analyses using gas chromatography/mass spectroscopy (GS/MS) technology. The Effluent Guidelines Division expected that we would enter into a cost-plus-fixed-fee contract to meet its needs. This procurement was a continuation of an existing cost reimbursable level-of-effort contract with a well-known research oriented company. Using historical data, the division estimated that the analysis would cost \$4,200 per sample. The total cost, therefore, would be in the millions.

The contracting officer prepared a cost-plus-fixed-fee request for proposal (RFP) in accordance with the information and direction received from the project. The estimated cost threshold was high enough for it to be submitted to me for approval. I rejected it, because I believed that the requirement could be articulated with sufficient specificity to support a fair competition for a fixed-price contract. My position was consistent with basic government procurement policy that strongly favors competitive fixed-price contracting over cost reimbursement forms. The critical missing element from the statement of work was the methodology that the contractor was to use to perform the chemical analyses.

The contracting officer asked the program for the missing methodology. I was flabbergasted when the program responded by stating that no such written methods existed. I knew that this could not be true, because of my laboratory experience 15 years earlier.

Therefore, I refused to move the procurement until the program provided the analytical methodology to the contracting officer. After a couple of weeks of bureaucratic wrangling, the methods suddenly appeared on the contracting officer's desk. As it happens, the methods had been developed and documented by Dr. Bill Budde of EPA's Cincinnati laboratory, and they had actually been published in the register.

EPA Interviewer: What type of register?

Kovell: *The Federal Register*. The methods were published there, and were widely known. As a result, the contracting officer was able to complete the requirement on a firm fixed-price basis instead of the cost-plus-fixed-fee favored by the program.

EPA Interviewer: And you did that because it brought down the amount of money?

Kovell: I did that because it was the right thing to do. I knew that I was taking a position that was strong and defensible from both a contract policy and technical merit perspective. I had no idea if the change would save any money, but it was important to promote competition whenever practical. As it turned out, the contract was awarded to the Carborundum Company at a cost of \$760 per sample. This was an important precursor contract for Superfund, because it fundamentally changed the manner by which EPA contracted for chemical analysis services.

EPA Interviewer: Quite a difference.

Kovell: Quite a difference. The program saved millions of dollars. The Effluent Guidelines Division also had a small, barely noticeable, contract operation that also would be very important to the operation of the Contract Laboratory Program. The contract was for a sample management office that performed various logistical tasks in support of the division's chemical analysis programs.

EPA Interviewer: When did you come to the realization that you're going to have to set up something for Superfund?

Kovell: It happened in late spring of 1979, before there was a Superfund. The EPA Administrator originated an effort to investigate a fairly large number of hazardous waste sites. Since this was to be a pilot project to be implemented at the time Congress was in the process of passing the first Superfund legislation, there was a general consensus that anticipated the passage of Superfund sooner or later. This hazardous site investigation task was a crash program that would be managed by EPA personnel, but the bulk of the work would have to be done by contractor personnel because the Agency did not have sufficient resources to do the work in-house. The schedule required the work to start in a few months, even though there were no contracts in place to provide the labor to do the work. This was the summer of '79, and that's when they got me out of contracts in order to create the contractor base to do the work that needed to be done.

EPA Interviewer: Do you remember who got you out of there?

Kovell: It was Ken Biglane. I was very impressed with him and his staff because of my previous experience with them in implementing the TAT contract a few years earlier. Also, it was about time for me to put on my program management hat again and go back to my engineering and science roots. I joined the Biglane team enthusiastically. There were two broad elements of the project. The first element was to create contracts to do field work, such as taking samples for chemical analysis and other tasks related to the investigation of hazardous waste sites. The second element was to create a network of contract laboratories to analyze the samples taken by the first contractor.

My contribution to the first task was minimal. Paul Nadeau and Henry Van Cleave did most of the work. They put together the statement of work for the procurement that resulted in the Field Investigation Team (FIT) contract. The FIT contract was nothing more than an expanded TAT contract containing the new hazardous waste investigation tasks. They did all the coordination with their counterparts in the regions. They had been managing the TAT effort for a few years, and an effective infrastructure for operating FIT was already in place long before FIT was needed.

The relationship between the program and contracts organizations was also an important element in implementing the Superfund contracting programs. The pre-Superfund program had very high priority from the Administrator, and the Headquarters Contract Operations Branch responded accordingly. They moved all the contracts along, and avoided procedural snags quite effectively. In addition, I had recently been the boss of contracts, and I had a lot of trust in the integrity and competence of Pat Patterson, the assigned contracting officer. In turn, the contracting office trusted me not to break any rules or to do something that would be contractually improper or stupid. This positive working relationship continued for many years, well into Superfund implementation. What it is today, I do not know.

The other half of my task, that of implementing a contract laboratory program to analyze the samples taken by FIT or regional personnel, was much more complex and difficult. The laboratory analysis part of the effort did not have an effective infrastructure in place between Headquarters and the regions in which the new tasks could be smoothly absorbed. Each region had its own laboratory organizationally located within the Environmental Services Divisions (ESD). Neither the regional laboratories nor their parent organizations had any functional focus such as existed for the regional response teams with the Oil and Special Materials Division. Hence, the regional laboratories were completely autonomous and never had to interact with each other or with a suitable Headquarters entity. Each went its separate way. This structural quirk in infrastructure was to cause me more problems than any other matter for the next five years. Nevertheless, I believed that the most practical way to achieve the operational consistency required by Superfund would be through the contracts by aggressively enforcing contract specifications. This activity was under my control, and I structured the contract program accordingly.

The very first thing I did was to write a Statement of Work for a sample management office (SMO) to control the flow of hazardous waste samples between the regions and the yet to be contracted with laboratories. In the summer of 1979, the Effluent Guidelines Division had a contract with the Viar Company, which provided SMO services for the division's programs. The statement of work that I prepared copied the one in the existing contract with one big difference. Since I had no staff, I wrote the statement of work in a way

that I would be able to legitimately get support for a variety of tasks that could be needed in implementing and monitoring what would become the Contract Laboratory Program (CLP). For instance, one important feature of this expanded statement of work was to authorize the SMO contractor to subcontract with the laboratory community simply by means of technical direction from the project officer, who was to be me at the time. Another task was to provide technical writing services. There were other provisions as well. A sole source SMO contract was awarded to the Viar Company within 60 days. As a result, we were ready to operate a CLP before we had a single laboratory under contract.

There were also serious technical and legal problems inherent in the chemical analysis of hazardous waste samples that had to be resolved at the very beginning of the program. My first problem was me. I felt confident in my ability to resolve any contract problem or legal evidence issues by myself, but the science part of the program was another matter. I had no staff, and I had not been in a chemical analysis laboratory for 15 years. Obviously, my technical expertise was seriously dated. Dr. Eugene Meier of the Environmental Monitoring Systems Laboratory, Las Vegas (EMSL-LV), came to the rescue. He volunteered his services and that of his Quality Assurance Laboratory. EMSL-LV would provide QA support for the Contract Laboratory Program for many years. Once the Superfund law was passed, I was able to get a small staff of technical experts to help me manage and grow the program. Dr. Fred Haeberer and Joan Fisk were the organic analysis experts. Dr. Gary Ward was our inorganic analysis expert. We also got help from the National Enforcement Investigation Center (NEIC) in Denver regarding chain-of-custody and other evidentiary issues. NEIC would also provide additional technical expertise in the early days of the CLP.

Before Superfund, in early summer of 1979, Dr. Meier and I agreed that the serious technical issues inherent in contracting for what would be Superfund-specific chemical analysis services would be resolved by requiring the contract laboratories to provide "data of known and documented quality." I also realized that data of known and documented quality was also the solution to the legal evidence problem that was lurking in the background. In addition, I knew that the quality of the product produced by the contract laboratories would be systematically improved over time by religiously adhering to the "90/100 rule" that had been an inherent part of my personal management philosophy for many years.

EPA Interviewer: And what did that mean?

Kovell: First, data of known and documented quality. There is error in every measurement. There is no such thing as a perfect measurement. The CLP uses GC/MS technology to analyze organic samples, and atomic absorption (AA) and inductively coupled plasma (ICP) technology to analyze inorganic samples. The problem is that the composition (also called matrix) of the samples from hazardous waste sites varies widely. Since the contracts require the laboratories to apply consistent analytical methods, matrix variation has to result in corresponding data quality variation. The question is whether this matters. The answer is that it depends. Therefore, if the quality of the data is known, the user can determine if it is good enough for the purpose intended. It would be impossible to use matrix-specific methods to analyze thousands of samples originating from everywhere at any time. It is also impractical to modify, on a sample-by-sample basis, the standard method to accommodate whatever sample matrix might find its way into the laboratory. The answer is to provide data of known

and documented quality, which consists of the analytical results, all the associated quality assurance/quality control documentation, and all the chain-of-custody documentation. Hence, a qualified chemist can characterize the data for usability for a variety of purposes without ever handling or even seeing the sample at any time.

Data of known and documented quality also resolved the problem of using analytical data in future criminal trials where the government had to meet the high standard of proof “beyond a reasonable doubt.” 25 years ago, testimony of chemical analysis results were generally provided by a forensic chemist who had performed the analysis in anticipation of having to testify at trial, if needed. The lawyers were used to using such chemists whose testimony was expected to be both technically competent and persuasive. This was, and still is, the prevailing view for using such expert witnesses with the exception of evidence generated by the CLP.

In the early days of the CLP, I began to get a few calls from various Justice Department attorneys preparing cases for settlement or litigation. Following the practice of the time, they asked me to identify the person who did the analysis that they intended to use. My answer was always the same. I suggested that their request was like asking the General Motors Corporation for the name of the person who made a particular automobile that was involved in an accident. I explained that a production line process involving many people performing different functions generated the CLP data. I explained that the CLP had converted the nature of hazardous waste samples from a research-type activity to that of providing a standard commodity. I also explained that “data of known and documented quality” was the device by which the lawyers could get reliable information that they needed. Twenty-five years ago, Justice Department attorneys understood that the CLP data package was a novel application of the business records exception to the hearsay rule, and hence had very credible evidentiary value. Such documentation, generated in the normal process of business, generally is much more reliable than testimony from one or more people involved in performing the chemical analysis operations. This was particularly true for CLP data, which had to be generated with the presumption that any analysis could be part of a criminal trial many years after the analysis was done. Data of known and documented quality was the only practical way we knew to bridge the technical and legal complexities of Superfund enforcement activities.

EPA Interviewer: Can you give an example of a specific enforcement case you were working with?

Kovell: Sure. I don't remember the name of case, but I do remember the incident very clearly. At about the time that CLP-generated data was first reaching the Justice Department, I got a call for help from a United States Attorney in Region 1. The attorney was very agitated because he was due in court the next day, and the regional technical expert on whom he was dependent upon for advice refused to use the CLP-generated data because of his claim that the laboratory had falsified some tuning data.

EPA Interviewer: This was a private laboratory?

Kovell: Yes, the laboratory was one of the CLP labs. It's a problem when a prosecutor calls me and says, “My God, what am I going to do? I'm trying a case tomorrow, and my EPA guy

just told me he can't testify about anything." I immediately asked our two organic analysis experts, Joan Fisk and Fred Haberer, to render an opinion. The three of us reviewed the documentation, and it was very clear, even to a layman, that the samples contained at least 36 chemicals that should not have been there. Joan and Fred also concluded that the documented instrument-tuning discrepancy had no measurable effect on the quality of the results reported. I asked the prosecutor how many compounds he needed to find in the sample to make his case. His answer was that he needed to prove that only one of the chemicals was present in significant amounts. When I told him that the data package would unequivocally prove that there were at least 36 compounds present, he thanked us, hung up the phone, and we never heard from him again. I assume that he made or settled his case satisfactorily.

This example illustrates a couple of important issues. The first is that requiring contact labs to provide data of known and documented quality works. The data package proved the existence of instrument-tuning discrepancies, and also proved that the tuning anomalies did not matter. Their existence did not automatically invalidate the usability of the analytical results reported. The second issue was the long-term problem we were having with some people in the regions who were reluctant to accept data generated by outside laboratories.

I would like to go back to your question regarding the 90-100 rule. The rule is simply defined as "90 percent perfect, 100 percent done." It is a process for making decisions in an ambiguous climate before all the relevant facts can be known. One makes a timely decision based upon the best available information and carefully watches the result. Then one makes an adjustment, and again watches for the result. After a few iterations, something can be accomplished that is 99 percent perfect and 100 percent done.

In the beginning the CLP had many structural and performance problems. EPA's needs for analytical data far exceeded the ability of the contract laboratory community to provide. The demand for the service far exceeded the supply, and we had to help the industry grow in size and technical ability so that Superfund needs could be met. The private sector was not the enemy; rather, I viewed the contractor community as an asset whose utilization was absolutely essential for successful implementation of Superfund. Also, the methodology we initially had to use was not specifically designed to analyze the almost infinite variety of sample matrixes that we were to encounter. The methods were capable of squeezing a lot of valuable information from "non-conforming" sample matrixes. Nevertheless, we had to improve the methods in order to improve the efficiency of the program and the utility of its data package product.

Overlaying these issues was the problem of regional acceptance of the program. The CLP was forced onto the regional ESDs and their regional laboratories. They did not roll out the welcome mat. Their initial reactions spanned the spectrum from enthusiastic acceptance and support (Region 7) through various degrees of grudging acceptance (most everyone), to continuous attack on the CLP concept and its product (Region 2). The Region 2 attack lasted for five years, until the region's ESD management team finally surrendered to the inevitable. The incidents caused by the region's continuous undermining of the program gave us more headaches than any other factor during this period. On the other hand, the criticism helped us improve.

On a more pleasant note, let's go back to the way we applied the 90–100 rule to systematically improve the performance of the analytical methods and the usefulness of the deliverable data package. When we awarded the first CLP contracts, we knew that we were going to get a lot of incompatibilities between the methods we cited in our contracts and the samples that we were requiring the contract labs to analyze. Contract obligations run two ways. The government often overlooks its obligation to its contractors. At the very least, the government has obligations not to impose conditions that frustrate the contractor's ability to perform. But we were doing exactly that. The contractors had a right to expect that it could meet its obligations by adhering to the government-supplied methodology. Since we knew that this would be impossible to some degree, we found ourselves in a perpetual condition where the government was breaching its own contracts, at least in part. Our contract specifications were x percent perfect, and 100 percent done. You can understand why we did not advertise the existence of this situation, but instead did our very best to manage our way through the problem. Clearly, our first priority was to provide Superfund with the sample analysis information necessary for supporting its decisions.

We worked our way through the contract incompatibility problems by extensive use of the policy of contractor performance forbearance. As project officers, the CLP staff chemists, Fisk, Haeberer, and Ward, were representatives of the contracting officer. In this capacity, they had the contract authority to accept work done by the contractor. They would be in the best position to determine if the contractor substantially complied with the contract in spite of discrepancies created by method/sample matrix incompatibility or other factors beyond the control of the lab. They would exercise their authority by routinely accepting work that met the needs of our regional clients even though it was impossible for the contract labs to exactly comply with all the criteria required by the methodology. During the early years of the CLP, these chemists reviewed thousands of specific problems and, together with the laboratories, made thousands of decisions that assured that EPA would get the data it needed. The experience of the contract labs in diligently working to detailed contract specifications was an indispensable part of the learning process. We routinely incorporated the lessons learned into existing contracts by means of change orders, and into new contracts that were systematically awarded as the program expanded. This process continuously improved the quality and usability of the CLP product while the volume and variability of samples were increasing rapidly.

The project officers used other tools to improve method, performance, and data package usability. During the first year, they organized the technical caucus process in order to improve the methods and data packages. The attendance at the caucuses was limited to just the technical people from the contract labs, and from EPA's regional and research laboratories. The caucuses met fairly frequently and were always chaired by one of the CLP project officers. There was no pecking order; the meetings were conducted as a true meritocracy. The caucuses gave all parties the opportunity to learn from each other on any technical subject relating to the methods, quality assurance, and data packages. The project officers often incorporated caucus material in the contracts. The caucus process was also very useful in promoting acceptance of and confidence in the CLP by regional laboratory personnel. After a couple of years, participation in the caucuses revealed an interesting evolution in the relative competence of caucus attendees. At first, the expertise in doing chemical analysis of hazardous waste samples mainly resided in the EPA's regional and research laboratories. Before the CLP started, all chemical analysis in support of regional

programs was done in the regional labs. As the CLP expanded and improved, the expertise for analyzing such samples shifted dramatically to the contract laboratories. After all, it was the labs that were gaining experience in doing the analysis. At the same time, the regional laboratory personnel developed a corresponding and most excellent expertise in evaluating data packages to support Superfund decisions. I believe that this specialization works well and is still in place today.

Another important tool was the use what we called “dynamic validation” to test methodology changes prior to incorporation into the CLP laboratory contracts. During the first few months of Superfund, I was asked by one of the CLP labs to replace the contract-specified packed column technology with a newly developed fused silica column technology. EMSL-LV also asked me to get funding to conduct a round robin evaluation of the new technology. This suggestion would have provided the data I would need to support changing major criteria in existing contracts. I needed supporting data because packed column technology was accepted as the industry’s standard practice at the time, and I was concerned with future legal implications. The round robin program promoted by EMSL-LV would have provided the data I needed, but it would take up to a year to complete. Fortunately, the Sample Management Office (SMO) contract gave us another way to go that was simple and quick. This contract gave me the authority to direct the SMO [Sample Management Office] to enter into subcontracts with the laboratories then in the program for the purpose of having them analyze the same samples using both technologies. This would give us a comparison using real world samples analyzed in exactly the same way as the contracts specified. The SMO selected the samples from various regions and sent them to the best performing labs in the system. We got the results within 45 days. The data was sent to EMSL-LV for review. It was obvious that the new technology was far superior, and we amended the existing CLP contracts within two weeks. Fused silica columns are still the standard technology used today.

The result of systematically applying these techniques was that the quality of the CLP product improved, as did acceptance of the program by the region’s laboratory personnel. The labs got better, the project officers got better, the contracting officer got better, the data package reviewers in the regions got better, etc. We were able to standardize operation of the program and its product, while at the same time we were able to maintain the program’s flexibility that we needed to respond to unanticipated needs.

The size of the CLP grew until it dominated the industry. Suppliers of analytical equipment recognized our dominant role in the business and began designing their instruments and related software to meet specific CLP requirements. So after about three years, the CLP contract requirements became and still are the nation’s unofficial but real standards for the analysis of environmental samples. That is how it happened.

EPA Interviewer: It came from EPA?

Kovell: It started with EPA. Most of all, we needed standardization to protect the government position in future litigation, both civil and criminal. The laboratory and laboratory supply industries also strongly supported standardization for business reasons. Many data reviewers in the regions also supported the concept because it made their work much easier to do.

EPA Interviewer: Right. So it's 1979. You are giving standard samples. Then we have Superfund, and it becomes obvious to you from your lawyer background that you're going to have to have data of known and documented quality and therefore standards of methods?

Kovell: This was before Superfund, but we were expecting Superfund to pass. We wanted to structure the program in way that would be compatible with Superfund needs once it passed. The evidence value of the data was a very important anticipated requirement, but not the only one we considered. In retrospect, we decided to routinely provide data of known and documented quality, because we did not know how, when, or by whom the data would be used. We knew that data of known and documented quality would be useful to a variety of users for a variety of purposes. Standardizing the data package around this concept was the only practical way we could think of to solve this problem. In addition, standardization would facilitate our management and enforcement of the CLP contracts.

EPA Interviewer: So I want to make sure that we've captured what led up to Superfund. We understand that some of the regional labs, some were great, some weren't.

Kovell: You hit it exactly. It was very clear that the regional labs did not have the resources to do the volume of work expected. We assumed that most of them had the technical competence to do the work at some rate, but we did not press the matter.

EPA Interviewer: So we had to come up with this standardized method?

Kovell: Right. Since we had to use the private sector, we were given a golden opportunity to actually achieve standardization by consistently incorporating the concept as contract performance requirements. At the time, I was very concerned that the private sector lab community was not large enough for a requirement of this size.

EPA Interviewer: That size meaning, Superfund.

Kovell: Right. There were a number of small labs that were capable of doing really fine work. The problem was that the labs did not operate in a way conducive to doing a high volume of chemical analyses, as would be required by Superfund. It would take time for such labs to adjust to a high-volume operational climate. The pre-Superfund site investigation program would give contract labs time to adjust their operations to meet the anticipated Superfund requirements.

EPA Interviewer: So in 1980 the legislation was passed, CERCLA [Comprehensive Environmental Response, Compensation, and Liability Act] passed, and is that when you built upon what you'd already done?

Kovell: That is correct. We already had the infant CLP that would eventually grow into a giant. All we had to do was feed, educate, discipline, and generally match its growth to Superfund's evolving needs.

EPA Interviewer: How did you go about doing that?

Kovell: When Superfund passed, things quickly changed. I was able to hire a small staff to help me implement what would become the CLP. I was also provided a generous budget to fund the contract labs and the Sample Management Office. Since contracts were already in place all I had to do initially was to contract out for more labs and expand the support provided by the SMO. I have already mentioned the role of the project officers in nurturing the contract labs and in improving our product.

EPA Interviewer: Basically federal seed money then?

Kovell: Yes. The funding for the pre-Superfund project can be considered to be seed money. We used it to structure a program that only needed expansion and refinement to meet Superfund needs. The structure and operational philosophy for the CLP was developed during this initial stage. Today's CLP is the result of refinements to the basic concepts that are still valid.

EPA Interviewer: Can you give some examples of either problems or stories that came up as you tried to make it happen?

Kovell: I'm going to give you a great story regarding fear and anxiety.

EPA Interviewer: And this was in the era of the '80s?

Kovell: This was in the early '80s. It involved a dioxin issue. Interestingly enough, when low levels of dioxin in the environment could not be measured, we did not have a dioxin problem.

EPA Interviewer: That's true.

Kovell: The CLP was measuring the dioxin in environmental samples in the early 80s. One day, I got a call from the Director of the Environmental Services Division in Region 6, Dallas, Texas. The purpose of the call was to alert me that I would be getting a call from the Governor of Arkansas, one William Jefferson Clinton, regarding dioxin analysis being performed in a CLP lab.

EPA Interviewer: Oh, what happened?

Kovell: Dioxin is a byproduct in the manufacture of pesticides. Since there was a pesticides manufacturing industry in Arkansas, EPA was looking for dioxin contamination near such pesticide manufacturing plants. This was in rural Arkansas. It turned out that one day, EPA personnel, regaled in protective clothing, visited the elderly Smith couple and took samples from their lawn.

EPA Interviewer: No warning?

Kovell: I have no idea on what was said to the Smith family. I was told that the message as understood by them was essentially, "We got some nasty stuff here. Go in your house, close all the doors and windows, and don't come out until we tell you it's safe." And that is what they did. It's August in rural Arkansas, and there's no air conditioning. After a few days, the

story of the Smiths' predicament sped rapidly through the local political structure directly to Bill Clinton.

Thanks to the warning, I contacted the laboratory that was analyzing the samples taken from the Smith property. As good luck would have it, the samples had been sent to the laboratory operated by Dr. Paul Taylor, who was the most experienced and capable analyst in the CLP system. I told Dr. Taylor of my pending call from Clinton and asked him for a status report. He replied that the samples were being processed through his laboratory in the usual manner. I told Dr. Taylor to continue the analytical process as a routine matter, and that I did not anticipate any problem. All I asked him to do was to assure that the results were reported on time. He assured me that that would be the case, and I considered the matter settled as far as he was concerned.

As promised, I got the call from Clinton a couple of days later. I found him to be enormously charming and pleasant. I briefed him on the situation, we made some small talk, and our conversation ended. Clinton was satisfied, and I assumed that the matter was settled. I was mistaken. The arrival of the analytical results two weeks later precipitated a new and most unexpected problem.

It seems that Dr. Taylor had just received a new high-resolution gas chromatograph-mass spectrometer and was anxious to use it. He personally performed the dioxin analysis using this advanced instrumentation. Use of the instrument was permitted by the contract. As a result, Dr. Taylor was able to achieve detection levels much lower than required by the contract and established industry practice at that time. Detection levels at the time were expressed in parts per trillion. Dr. Taylor achieved levels in the parts per quadrillion level, a big improvement. The problem was caused, not by the levels achieved, but how Dr. Taylor chose to express these levels. In the narrative part of the data package, Dr. Taylor said that the laboratory could not detect any dioxin in the samples at levels above the quadrillion level achieved. This was a tongue-in-cheek way of showing off his accomplishment, which would be well-understood and appreciated by the chemist community. The politicians and public took a different view. They posed the question, "Can you prove that there is no dioxin in the samples?" That question cannot be answered affirmatively, because dioxin can be present at levels below the detection level. As a result, Region 6 asked the lab to reanalyze the samples and report the findings in the usual way, which was a "non detect" notation in the results form. Dr. Taylor did this, and I never heard of the issue again.

EPA Interviewer: I can imagine, and tell me if I'm wrong, that you had a lot of those types of issues. It's a new developing program. Was Congress interested in the program?

Kovell: I never had any indication that Congress even heard of the program. I had very little to do with how CLP data was used in the regions. The users of our product were like the users of any other product. Does a user of a refrigerator care how the product was manufactured? Not likely. The regions routinely addressed issues such as the Arkansas dioxin issue by themselves. After all, data of known and documented quality spoke for itself.

EPA Interviewer: So what was it like then? You go to a community with these samples....

Kovell: I have no idea. Interfacing with the public was a regional responsibility. The CLP only provided information. The regions decided how such information was used.

EPA Interviewer: Did any of the politics, as the program got started, the new Administration, affect the program at all?

Kovell: The new Administration did not have any effect on the CLP. The new Administration continued to provide the CLP with sufficient funding to expand the program at the rate needed to meet Superfund needs. The only political problems I had were internal to EPA, and were focused on a few regional Environmental Services Division managers who viewed the CLP as a personal threat to their turf. Their opposition resulted in some ugly confrontations that I had to address from time to time. It took five years to finally get the holdouts to give up the fight and start looking at the CLP as a valuable addition to their operations instead of viewing it as a competitor. I don't think that reliving old battles at this time would be particularly useful.

However, as a matter of interest, we had one opportunity to compare the performance of the regional laboratories against that of the contract labs. Five regional labs volunteered to be tested against all the CLP labs by analyzing single blind samples. The regional labs had an advantage because they knew that they were being tested. The same test samples were sent to the CLP labs as double blinds by being intermixed with real environmental samples and sent to the CLP labs for analysis. The CLP labs did not know that they were being tested. All the labs except for the Region 2 lab passed the test. The results were amazing. Dr. Taylor of Arkansas dioxin notoriety got the highest score. The second highest score was given to the Region 7 lab. There was very little difference among all the other labs that passed the test. Unfortunately, the results for Region 2 were so bad that it would not qualify as a CLP lab. Ironically, Region 2 was the most aggressive critic of the program.

I would like to express my appreciation to my bosses who supported the CLP in spite of severe criticism coming from the regional early critics of the program. Ken Biglane, Mike Cook, Bill Hedeman, Henry Longest, and Lee Thomas were all supportive and gave me the space to fight my own battles with our regional tormentors. A special thanks goes to Tom Dunne, who was working as a consultant to Lee Thomas at the time. Since Tom made it his business to know what was going on in Superfund at all levels, and since he spent considerable time with us, he might have been the only senior manager who understood how the CLP really worked. Tom had access to all levels of management, and I have always suspected that he did more than his share in protecting our backsides. Thank you, Tom.

EPA Interviewer: And he's now the Acting Assistant Administrator for OSWER [Office of Solid Waste and Emergency Response].

Kovell: That's right. It's a small world.

EPA Interviewer: As communities—and I know you said you didn't deal a lot with the communities—but from a higher perspective like you were at, as everyone became more educated, as the technology became more sophisticated—I'm sure that generated a lot of questions for people of concerns saying...

Kovell: Not really. When you talk about data quality, you're talking about a very small number of people that are technically capable of assessing it. Once in a while, we would get calls from U.S. attorneys who were frustrated with the support they were getting from the regional data reviewers. We would have to intercede. We would have to educate them a little bit on the concept of "data of known and documented quality." But it was up to the regions. Interacting with communities was a regional responsibility. Our role, essentially, was to provide information to help them make decisions.

EPA Interviewer: We've talked some about how it took you two weeks to get samples analyzed and get the data back, is that correct?

Kovell: Not quite right. The normal turnaround time for routine samples was 30 days. The contracts assessed penalties for late delivery. These 30-day contracts were numerous and formed the base of the program. Almost from the very beginning, however, we began to get requests for analyses that did not exactly fit the statement of work for the existing CLP routine contracts. Requests were coming in for 14-day turnaround, for the analysis of specific chemicals, for the analysis of unusual sample matrixes, etc. Maintaining the integrity of our contracts was a very important program operational principle. We would never ask a lab to deviate from its contract to accommodate any variations from the norm. It was also obvious that EPA's ponderous procurement system was not responsive enough to meet a wide variety of unexpected Superfund needs. Once again, however, the flexibility built into the Sample Management Office contract came to the rescue. I directed the SMO to form a new program, which we called Special Analytical Services (SAS), to accommodate this growing regional requirement. SAS was merely an expansion of the kind of subcontracting that SMO had done previously to help validate analytical method changes. SAS became an important adjunct to the regular CLP contracts and greatly increased the flexibility and responsiveness of the CLP.

EPA Interviewer: So what happened if you had an emergency to respond to?

Kovell: I believe that the Missouri dioxin panic would qualify as such an emergency. When the requests for dioxin analysis started to pour into the SMO, we were already prepared to respond by subcontracting within the existing CLP laboratory community. These sub-contracts could be awarded competitively, because the population of CLP labs in good standing was always sufficient to support a fair competition. It was important to stay within the CLP lab community because of their proven expertise in meeting CLP requirements for data of known and documented quality and strict adherence to all the terms and conditions in their contracts. That is all there was to it.

EPA Interviewer: You changed the contract a little bit?

Kovell: I would not put it that way. Contract integrity was very important to us. What happened was that the SMO would enter into separate subcontracts with the laboratories requiring them to use the basic procedure with what usually was a minor variation. The underlying procedures and data packages for SAS were the same as the regular program.

EPA Interviewer: Of course.

Kovell: The simplest variation was for just for a shorter delivery time, keeping everything else the same. That's how we responded to the initial dioxin panic. SAS was in place, and all we had to do was push the button. How do you think we had contracts in place the next day? How do you think we did that?

EPA Interviewer: I assume you made some phone calls.

Kovell: Absolutely correct. When the SMO solicited bids by telephone, it was possible to have contracts in place in a matter of hours. The EPA Contracts Office could not deliver this kind of service.

EPA Interviewer: How have you seen the program expand or change over the past 20, 25 years?

Kovell: The CLP is still in business, prospering, and responding to changing needs. The infrastructure we designed the first year is still in place essentially unchanged, with one important exception. Unfortunately, CLP flexibility was severely curtailed when the EPA Contracts Office arbitrarily and capriciously removed the SAS task from the SMO contract. Nevertheless, the program's infrastructure is still very efficient, even though the program has more difficulty responding to non-standard Superfund needs. Fortunately, during the past two decades, the CLP has systematically expanded the variety of regular analytical services offered. After 25 years of operation, the CLP infrastructure should be viewed as a valuable national resource that can be used by other government agencies needing chemical analyses services.

My big gripe concerns the deterioration of service offered by the Contracts Office. My frame of reference is the performance of both the contracts and program people when I managed the Headquarters Procurement Operations Branch, and later when I functioned as the CLP manager during the early Superfund years. In those days, we worked as a team, and we were able to get contracts through the system in a reasonable time. I remember when the largest level-of-effort cost reimbursement contracts were routinely awarded within five months. I also remember when the contracts office routinely awarded CLP laboratory contracts within 90 days of receiving the procurement package. This work now takes at least three times as long.

I have spent at least half of my professional life dealing with government contracts. I have even testified as an expert witness in government contracting in federal court. I freely admit, however, that I do not know everything on the subject. For instance, I do not know how the SAS part of the SMO contract violated any law, regulation, or good procurement practice. Apparently, various Government Accounting Office and Inspector General auditors, who also could not find any violations of law, regulation, or good procurement practices, share my ignorance. Maybe someday I will also share the enlightenment of the person who made the decision to scuttle SAS.

EPA Interviewer: When we were walking upstairs today from your car, you mentioned how when you were a consultant you would find things that you wrote that were no longer applicable.

Kovell: Oh sure.

EPA Interviewer: Can you give an example of what you saw?

Kovell: Sure, I'll give you an example. The State of New York used a cost reimbursement contract to employ a company to investigate some hazardous waste sites. The prime contractor then entered into a firm-fixed-price subcontract with a laboratory to analyze samples taken from those sites. It was a large subcontract, over \$150,000.00. The laboratory did the work, submitted the data packages to the prime contractor, who delivered them to the state laboratory for review.

For reasons that were obscure at the time, the data reviewer did not like what he saw and refused to accept the work, so that the prime contractor could be paid and pay the laboratory in turn. The laboratory claimed that it had fulfilled its contract obligations in full and demanded payment. The prime contractor's refusal to pay was based only on the position taken by the state data reviewer. The prime was reluctant to demand payment from the state, because it was concerned that a dispute with its customer would prove to be harmful to their business relationship.

I had left the EPA and was now working as a private consultant. The prime contractor and the laboratory asked me to solve the problem and agreed to share my fee to avoid a conflict of interest situation. First thing I did was to visit the laboratory and read its contract with the prime. The contract's statement of work was identical to that of a CLP laboratory. It was no coincidence that the laboratory was also an active CLP lab in good standing. I reviewed the product they produced for the prime. It was clear that the lab had met the contract requirements in all respects and should be paid for their work. I then visited the prime and examined its contract with the state. I'm reading the contract and it looks like one of EPA's field investigation contracts. Hmm, I remember that one. There was no question that the contract required the state to pay the prime the cost of the analysis done by the lab, whether they liked the results or not. I wrote a report in lawyer talk explaining why the prime was obligated to pay the lab and why the state was obligated to reimburse the contractor for the laboratory services provided. I also concluded that the contractor was obligated to its stockholders to demand payment from the state. The prime contractor did as I suggested and everyone got paid.

This incident was an example of how non-EPA parties copied Superfund contracts without an appreciation of how they worked. The problem never would have materialized if the parties all focused their positions on what the contracts actually required instead of what they expected after the fact. Contract integrity goes a long way.

EPA Interviewer: We've covered a lot in the past hour or so. Are there are some other things that you wanted to add or discuss?

Kovell: Let's see. Well, we talked about data, known and documented quality, which was the big one. Contract integrity is another equally important CLP value. I'll rest with that.

EPA Interviewer: So my last question for you is the one I ask almost everybody: Where do you see Superfund, and specifically the CLP program, for the next 25 years?

Kovell: Superfund in its present form will disappear during the next 25 years because it will have finished its work. Elements of the CLP will survive and even prosper because the nation will always need some level of environmental sample analysis. "Data of known and documented quality" will be with us for a long time. The discipline inherent in the CLP contracts is an important element in promoting contract integrity, which also will not go out of style.

I would like to finish up by suggesting that EPA should do a serious assessment of its current chemical analysis services facilities and institutions for the purpose of positioning its capability for the future. EPA should not wait until there is a problem that forces it into action. There are good solutions for problems on the horizon, but that is another story for another time.

EPA Interviewer: Thank you for the time you've spent with us, and we look forward to talking with you more in the future.

Kovell: I'll be glad to help you in any way.