THE
DOE RUN
COMPANY

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February 18, 1988

Mr. Vince L. Kontny
President and CEO
Fluor Daniel
3333 Michelson Drive
Irvine, CA 93740

Dear Vince:

This is a brief overview regarding the OSHA citations that Doe Run received last week. This will be explained in more detail in the forthcoming February 24 meeting in St. Louis.

Very truly yours,

William A. Humphrey, Chairman
The Doe Run Management Committee

WAH:pj

Attachments

PREPARED UNDER DIRECTION OF COUNSEL

TO: Jeff Zelms DATE: 2/16/88

FROM: Dan Vornberg through Walter Nowotny

SUBJ: The Background of the OSHA Lead Standard and the Strategies of the Primary Lead Producers in Attempting to Comply with that Standard

In 1970 the Williams-Steiger Act known as the Occupational Safety and Health Act was passed. It created the National Institute of Occupational Safety and Health (NIOSH) for research and empowered the Secretary of Labor to administer portions of its provisions including the establishment of Health and Safety Standards - initially by adopting consensus or government standards and later by detailed analysis. The responsibilities of the Labor Department have been carried out through the Assistant Secretary of Labor for the Occupational Safety and Health Administration (OSHA) within the Department of Labor.

The initial regulations were promulgated, thereafter, which included the American Conference of Governmental Hygienist's recommendations on acceptable air concentrations in the work place. For lead, this level was 200 micrograms per cubic meter. Other standards applicable to lead were adopted on a general basis requiring various administrative controls but in a relatively nonspecific way.

In 1974, OSHA decided to inspect all of the primary lead operations in the United States by monitoring for air lead levels and issuing citations requiring engineering controls to reduce air lead levels to the 200 level. Also, administrative requirements were mandated such as the restriction of smoking and eating in the work place. Herculaneum received citations at that time and developed a plan to install certain engineering controls.

As might be expected, it was impossible to install those controls in a relatively short time and an extension was granted by OSHA under a provision of the rules called "Petition for Modification of Abatement Date (PMA)," which modified the time to install equipment. These extensions continued year after year. Sometimes, this occurred because of multi-year projects, work stoppages at our own plant, or equipment delivery delays. Other extensions occurred because the initial project was installed and subsequent air monitoring indicated that the air level standards had not been met and, consequently, other projects were then devised.

In 1975, OSHA decided to review and revise its lead program and to issue a "comprehensive lead standard" which would package in one regulation all of the detailed engineering, respiratory and administrative procedures that they thought were appropriate. This culminated in a 1978 rule-making which became effective early the next year. The final standard was more stringent than the originally proposed standard. It required a 50 air level, specifically designed changehouses and cafeterias, mandatory respiratory control where present engineering was not effective, company provided clothing, the removal of workers from the

work place when medical monitoring showed they exceeded a prescribed level of lead, the protection of earnings while this medical removal was occurring, and numerous other very specific regulations. The medical removal level chosen was 50 micrograms per 100 grams of whole blood, much more stringent than the 80 level generally supported by industry. A number of facets of the standard were phased in with time including the blood lead removal levels and ten years was allowed, until 1989, to achieve the air lead standard through engineering controls (Because of court delays, this date later became 1991.)

The industry was shocked. A broad based legal challenge was mounted by the Lead Industries Association; but the courts finally rejected all of the arguments, and the last appeal was exhausted in 1981.

In general, the affirmative actions of the industry, including both Buick and Herculaneum, were to move forward with changehouse and cafeteria construction projects, implement mandatory respirator wear, lower medical removal levels, modify numerous other administrative programs and training programs, and continue to deal with engineering controls under the 1974 citation PMA strategy. While it is difficult to separate OSHA lead controls from community air lead controls and sometimes difficult to separate them from process improvements, each of Doe Run's facilities spent in the order of $10 million each since 1978 on capital improvements and increased costs significantly with training, monitoring, MRP removal costs, respirators, and numerous personnel to administrate, operate, and maintain new programs and equipment. (The Bureau of Mines has been working on an estimate of the total costs of these programs.)

Both St. Joe and Amax Lead of Missouri, in anticipation of strict enforcement of this unachievable standard, stepped up efforts to identify a new generation of technology. St. Joe invested a million dollars in support of the QSL research in Germany. When efforts their seemed marginal, they spent about $12 M in developing a chemical process begun earlier by BOM which leached concentrate with Ferric Chloride, purified and crystalized out Lead chloride. The final step was an electrolytic production of metal in a process step developed with ALCOA. Unfortunately, the process was far more expensive than anticipated due to the poor cell efficiency achieved. Other processes were also visited and studied. AMAX, likewise, made a review of these technologies and provided concentrates for a trial run in Finland of the Outokumpu Oy flash smelting and electric slag cleaning process. At that time none of the processes were determined to be either technologically or economically feasible. Both companies continued to monitor the progress on these processes.

With the inauguration of the Reagan Administration and the announcement that they would be moving on "Regulatory Reform," the lead industry saw an opportunity to get a review of what it envisioned as an impossible standard to achieve, certainly with regard to air levels and possibly with regards to blood lead goals. Since various industry segments within LIA had different needs, the various groups within the industry diverged in regard to how to seek to take advantage of regulatory reform. The primary lead industry brainstormed all possible options short of legislative relief including variances, extended settlement agreements in the context of enforcement actions, and new rule-making. A revised "integrated

primary standard" was drafted and proposed by St. Joe. A meeting of principals, John Wright, Bob Muth, and Allen Booth, was set up in 1982 with Thorne Auchter, then Assistant Secretary of OSHA, to indicate the seriousness of the need for relief. On the day prior to the meeting, however, ASARCO announced that it had been meeting separately and intended to execute a three way agreement, a "tripartite agreement" between OSHA, the union, and ASARCO as a method of managing what was expected under the lead standard. These agreements would be renewed every three years. St. Joe and AMAX felt these agreements raised serious legal issues and would be subject to political whiplash since any of the three parties could withdraw. They could also become integrally intertwined in the collective bargain process with time. St. Joe, at that time, was still hopeful that something "permanent" could emerge from the process that would survive changes in political administrations. Unfortunately, the current administration was learning about this time that the American press and the American voter were not sympathetic to "regulatory reform."

After the defection of ASARCO, each company took its own counsel as to how to approach the problem. In May of 1983, St. Joe applied to OSHA for a permanent variance with support of the local Teamsters 688. The variance sought three major forms of relief: (1) $10 million of additional projects were proposed over a 6-year period as an initial cap on engineering control expenditures, (2) that blood lead triggers would be ratcheted up or down to keep the impact of the number of HRP's at a fixed percentage of the work force, (3) that respirator protection factors would be adjusted to allow currently available respirators to continue to be used. We held endless meetings with policy and variance people in Washington over a several year period discussing the merit and legality of our approach and OSHA arguing the acceptability of tripartite. We had inspections of the plant and engineering control plans were proposed. OSHA knew from their own consultant's report (Charles Rivers Associates) that the standard was not achievable and had modified, as mandated by the courts, their position to state that only those controls economically and technically achievable were required. St. Joe contemplated forcing a showdown on the permanent variance through the hearing and court process.

AMAX, in the meantime, had been able to reduce their blood leads even faster than the other primaries, partially due to work interruptions, partly due to a younger work force, and partly due to their cleanroom concept. At any rate, while the rest of the industry was still receiving variances, AMAX took the step to ratchet to the final 50 blood lead standard. With this step taken thus one of the potentially business threatening problems solved, they decided to abandon the concept of "permanent relief" and apply for a 5-year FHA relying on the old 1974 citations. This relief was obtained in 1985. Interestingly, it may have been St Joe's dogged insistence on the permanent step that made OSHA accept AMAX's rather clever proposal rather than hanging on for tripartite. This step was taken successfully and following behind that a permanent respirator variance was requested, asking for a 10 fold increase in the allowable concentration for use of the standard half face negative pressure respirator. In the end, after a laborious interchange, OSHA gave them a 2.5 fold increase and a complicated set of conditions to go with it including a prohibition against further blood lead relief. This relief was not achieved until the spring of 1986.

St. Joe, observing political realties and AMAX's success, also gave up the allusion of permanent relief and applied for a five year PMA, which was granted effective February, 1986. In December of 1986, the final ratcheting to the 50 blood lead standard was made, and application for a permanent respirator variance was filed. That variance is still pending.

It was reasonable to believe at this point, early 1986, that OSHA had made its peace with the Primary Lead Industry and we would be allowed to coexist by continuing to improve our facilities within the structure of the five year PMA's. ASARCO, having arguably spoiled the possibility of permanent relief for the industry with their tripartite agreements, decided in late 1986 that these were not the Eutopia's that they originally envisioned. As they began expiring, they had five of them, they decided not to renew them. As a result, a letter was sent out indicating that all of the ASARCO facilities should be given wall to wall inspections to determine compliance with the lead standard, following the expiration of the agreements. While this has not been done in all cases, they have been initiated in the East Helena smelter and are about to close that inspection.

While it is too early to fully analyze the impact of the recent inspections at Herculaneum, it is not clear that the rules of the process have changed. OSHA has visited the plant at least once a year over this decade without any prior indication of deficiency in our program, or with the reliance on PMA's.