



# CITY OF SACRAMENTO

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## DEPARTMENT OF LAW

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October 14, 1980

City Council  
City Hall  
Sacramento, California

RE: MCCLELLAN AFB PROPOSED TEST BURN OF PCB's.

Honorable Members in Session:

The attached material explains the situation regarding the proposed test burn of PCB (polychlorinated biphenyl) at McClellan Air Force Base.

The proposed test burn would be located outside the City limits and, because of Federal preemption laws, the City is prohibited from stopping the test burn.

The City Planning Department has communicated its position to the appropriate authorities to the effect that the test burn should not be conducted until the responsible technical agencies are satisfied the burn will not adversely affect the Sacramento region.

The State Air Resources Board will consider this matter on October 22, 1980.

Respectfully submitted,

JAMES P. JACKSON  
City Attorney

JPJ:KMF

ATTACHMENT

**APPROVED**  
BY THE CITY COUNCIL

OCT 14 1980

OFFICE OF THE  
CITY CLERK

MEMORANDUM

October 9, 1980

TO: Marty

FROM: Toke

SUBJECT: Proposed McClellan Air Force Base PCB Test Burn

The following is a brief chronology of this proposal, and our department's participation:

1. Because a large quantity of PCB (polychlorinated biphenyls) has been stored at McClellan, McClellan has been investigating the possibility of burning the PCB at high temperatures. EPA approved a test burn at McClellan in December 1979. It should be noted that EPA has not approved any method of disposal of PCB, even underground burial. Although PCB can be destroyed by incineration at high temperatures, EPA had not previously approved any burning of PCB. EPA conducted a test burn in late September at Deer Park, Texas; but the results have not been released.
2. In July 1980 McClellan invited public agencies and organizations to a briefing regarding the test burn. Clif Carstens attended the briefing on behalf of the Planning Department. At that time, there was no indication of concern by the responsible technical agencies: EPA, State Air Resources Board, or the County Health Department (Air Pollution Control District).
3. On July 22 the State Air Resources Board (letter attached) recommended that the County Air Pollution Control District defer authorization of the test burn because of their concerns regarding the safety of the test burn.
4. On July 25 (letter attached) the County APCD recommended that McClellan defer the test burn until all issues regarding the burn had been resolved.
5. SRAPC invited comments from other agencies regarding this test burn. Clif wrote the attached letter (dated August 9) recommending that the test burn be done only after all of the responsible technical agencies (Air Resources Board and County Air Pollution Control District) were satisfied that there would not be any direct or indirect effects upon City residents. The letter also recommended that the test burn not be conducted in the Sacramento urban area if the technical agencies had any doubts regarding the safety of the burn.

October 9, 1980

6. This matter was discussed at the September 5 meeting of the SRAPC Technical Coordinating Committee, including a presentation by technical experts from McClellan Air Force Base. The TCC endorsed the City Planning Department's recommendation that the test burn should only be conducted after the responsible technical agencies were satisfied that there will not be any adverse environmental effects. The TCC also recommended that any subsequent large-scale incineration of PCB be conducted outside the Sacramento metropolitan area because of the potential cumulative effects of large-scale burning.
7. On September 11, SRAPC's Environmental Management Policy Committee (EMPC) adopted a similar motion.
8. CURRENT STATUS: Bob Cofer of the County APCD indicates that the test burn is not approved at this time. The State Air Resources Board is scheduled to consider this matter on October 22. If they approve this burn, then it appears that the burn would proceed.

Bob indicates that a recent meeting between McClellan and ARB staffs resulted in two changes:

- a. The amount of PCB proposed to be destroyed by the test burn has been reduced from 130 to 65 gallons;
- b. If the test burn is authorized, McClellan would recommend that any subsequent PCB burns be conducted at another location because of the concerns expressed regarding the potential effects of large-scale burns in an urbanized area.

Please contact Clif or myself if you have any questions regarding this matter.

TM:bw

Attachments

cc: Councilman Blaine Fisher  
Clif Carstens  
Ted Kobey ✓

SACRAMENTO REGIONAL AREA PLANNING COMMISSION  
800 H Street, Suite 300, Sacramento, CA 95814

MEMORANDUM

AUGUST 28, 1980

TO: MEMBERS OF THE TECHNICAL COORDINATING COMMITTEE

FROM: KAREN O'HAIRE, Associate Planner

RE: MC CLELLAN AIR FORCE BASE PROPOSED PCB (POLYCHLORINATED BIPHENYLS) TEST BURN

McClellan Air Force Base is proposing to conduct a demonstration burn of 125 gallons of PCB during three two-hour periods in October 1980. The purpose of the demonstration burn is to determine if the liquid waste PCB can be effectively destroyed in McClellan's on-base high temperature incinerator.

Attached please find a fact sheet McClellan AFB has provided on the project. It discusses the problem of PCB, the incinerator, and details of the demonstration process.

Since staff has begun its review of this project, the Air Resources Board and the Department of Health Services have raised several concerns about the project and technical documentation used in the environmental assessment of the burn. As of this time, these concerns have not been resolved.

The City of Sacramento has submitted to SRAPC the following comment:

"The PCB demonstration incineration should only be conducted after the responsible technical agencies (APCD, ARB, and EPA) are satisfied that the burn will not adversely affect the Sacramento Region."

Additionally, letters from the State Air Resources Board and the Department of Health Services have been received.

Staff recommends that you listen to the presentations by McClellan AFB and other interested agencies and formulate a recommendation to the Commission.

This matter is on your agenda of September 5, 1980, for review and action.

KOH:pal

Attachments

cc: Brunner  
Cofer  
Carstens  
Kohnert  
Morgester

## FACT SHEET

SUBJECT: Polychlorinated Biphenyl (PCB) Incineration at McClellan AFB.

1. In 1976, PCB was found to be carcinogenic and its production and sale was completely banned in 1979. It is estimated that over 750,000,000 pounds of PCB were produced in the United States and are found in many products. About 7,000,000 pounds of PCB are in equipment managed by the Department of Defense. The need to safely dispose of liquid PCB (over 500 parts per million) is of great importance to the Air Force and the nation. The only method of disposal currently acceptable to the U.S. Environmental Protection Agency (EPA) is high temperature incineration. As yet, there are no incinerators commercially available to the public, therefore, liquid PCB can only be stored until a disposal site is available. McClellan manages and stores significant quantities of equipment containing PCB. The base's available storage space is being filled rapidly which in itself poses a potential health risk. A means of safe disposal must therefore be found.
2. In early 1976, McClellan personnel recognized the brewing PCB problem and initiated a project, with EPA's concurrence, to demonstrate the PCB destruction capability of an on-base high temperature liquid waste incinerator. The project was sponsored by the Air Force Occupational and Environmental Health Laboratory. In 1976 and 1977 non-PCB chlorinated compounds were incinerated at McClellan's facility with EPA, State Water Quality Control and local health agency approval. The chlorinated compounds were perchloroethylene (PCE) and trichloroethylene (TCE). The burns were successful in that, no detectable amounts of either compound were found in the scrubber water or air emissions. With this data, the Air Force in 1978 petitioned EPA for permission to burn PCB. In December 1979, the EPA approved McClellan as a demonstration site for the incineration of PCB. Prior to granting permission for this burn,

the EPA solicited comments from local and State agencies. No agencies objected to the burn. The Air Force prepared an environmental assessment and concluded that the test burn will not create any significant environmental impact. This document was offered for public review in early July 1980 when public notice was placed in the local Sacramento newspapers.

3. McClellan's liquid waste incinerator is located on the west side of McClellan Air Force Base. It was purchased in 1974 for waste oil and sludge disposal. McClellan civil engineers and the original manufacturer have recently inspected the incinerator and have found it to be in good condition. Many new component parts are being installed to insure the unit is completely safe. The Air Force Engineering Center and Occupational Environmental Health Laboratory will conduct a separate safety inspection of the incinerator and test burn site. The entire incinerator area will be paved and bermed to prevent any spillage from escaping.

4. The demonstration will consist of three separate two-hour burns over a period of two to three days. The test burn is scheduled for late October 1980. A total of 700 kilograms of PCB or approximately 125 gallons will be burned. This breaks down to approximately 230 kilograms for each two-hour incineration effort. PCB will be blended with waste JP4, a kerosene product, to provide more heat in the mixture that is to be burned. The mixture will be 80% JP4 and 20% PCB. This mixture will be fed into the incineration chamber at a rate of 90 gallons per hour. This chamber will have been preheated to 2400°F by a natural gas flame. The PCB mixture will be decomposed in the chamber into simpler compounds such as CL, CO<sub>2</sub>, and water. Should the combustion chamber temperature drop below 2200°F, an automatic alarm will sound, and the unit will be immediately shut down. The combustion efficiency of the incinerator will be directly monitored within the unit to insure the PCB is being destroyed. After the combustion

process, the gases pass through a water spray mist and into a venturi water scrubber unit to remove the remaining pollutants that may be contained in the exhaust gases. The scrubber water and exhaust gases are then allowed to separate. The used scrubber water will be piped to a special holding pond. The pond is about 300 feet from the incinerator and will be completely lined to prevent any infiltration into the ground. Approximately 70,000 gallons of water will be generated from the three burns. The pond can hold 250,000 gallons. The pond will also be constructed with a removable cover to prevent rain water from entering the site. None of the scrubber water will be discharged; instead, the water will be evaporated leaving the PCB and the liner removed and disposed of as solid waste PCB regardless of the contamination level. This is a safe method of disposal for the water since PCB has a negligible evaporation rate. The remaining gases, after the water scrubber, will be vented into the atmosphere through the exhaust stack. At this point the Air Force will be carefully collecting air samples that will be analyzed to determine our PCB destruction efficiency which is expected to be 99.9999%.

5. During each test, ambient air monitors will be strategically placed to determine the impact of the burn on the environment. Through air dispersion modeling we have calculated the ambient PCB concentration levels projected to occur during each burn. The only air standard available for PCB is an Occupational Health Standard for working areas (0.5 milligrams per cubic meter). The miniscule levels of PCB that may be dispersed into the atmosphere ( $.258 \times 10^{-5}$  milligrams per cubic meter within 150 meters) are far below the health standard.

6. The State Air Resources Board has raised the question of whether other toxic pollutants will be vented into the atmosphere during this burn, such as dioxins, dibenzofurans. The EPA considered these compounds when they issued our approval. The EPA is conducting a test burn in Texas to determine if

dioxins and dibenzofurans are a problem in high temperature incineration.

The results of this EPA test will be available in about one month which is well before the planned late October test burn date. The Air Force will not burn until the EPA results are available and considered. If these results are unfavorable the burn will not proceed. During the test burn we will monitor for dioxins and dibenzofurans.

7. Analysis of the results of McClellan's PCB demonstration burn will be completed in about one month after the test burn. The EPA will review our data and determine if the McClellan incinerator is to be certified. If certified, the Air Force will prepare a separate environmental impact document for PCB disposal and submit it to the public for review and comment. The Air Force will not proceed with the test burn or any subsequent PCB burns if it is determined that the base or surrounding community would suffer from environmental consequences.