

*Testimony of
Theodore J. Gordon
Senior Deputy Director
Environmental Health Science and Regulation Administration
Department of Health*

*Hearing on the Spring Valley Site
Washington, D.C.
July 14, 2003*

**GOOD MORNING COUNCIL MEMBER ALLEN, SCHWARTZ,
PATTERSON AND OTHER MEMBERS OF THE COUNCIL. I AM
THEODORE J. GORDON, SENIOR DEPUTY DIRECTOR FOR THE
OFFICE OF ENVIRONMENTAL HEALTH SCIENCE AND
REGULATION. THANK YOU FOR THE OPPORTUNITY TO PRESENT
TESTIMONY ON BEHALF OF MAYOR ANTHONY WILLIAMS AND
MR. JAMES BUFORD, DIRECTOR OF THE DEPARTMENT OF
HEALTH REGARDING THE DEPARTMENT'S ROLE IN MONITORING
AND REGULATING THE CLEAN-UP ACTIVITIES IN THE SPRING
VALLEY NEIGHBORHOOD.**

**MY COMMENTS WILL FOCUS ON THE DEPARTMENT OF HEALTH'S
ACTIVITIES IN SPRING VALLEY SINCE THE LAST COUNCIL
HEARING ON THIS ISSUE HELD ON FEBRUARY 14, 2001, CHAIRED
BY COUNCILMEMBER [NAME]. THE TESTIMONY WILL INCLUDE**

INFORMATION ABOUT THE BIOLOGICAL TESTING COMPLETED AT THE CHILD DEVELOPMENT CENTER AND WILL ALSO DESCRIBE THE EXPOSURE INVESTIGATIONS OF THE SPRING VALLEY RESIDENTS -- PHASE I, WHICH WAS COMPLETED IN MARCH 2002 AND PHASE II, WHICH WAS COMPLETED IN NOVEMBER 2002. I WILL ALSO HIGHLIGHT SOME OF THE RECOMMENDATIONS MADE BY THE MAYOR'S SPRING VALLEY SCIENTIFIC ADVISORY PANEL.

AS YOU ARE AWARE, DURING WORLD WAR I THE U.S. ARMY OPERATED A LARGE RESEARCH FACILITY TO DEVELOP AND TEST CHEMICAL WEAPONS AND EXPLOSIVES AT A PORTION OF AMERICAN UNIVERSITY AND ADJACENT AREAS. AFTER WORLD WAR I, THE MAJORITY OF SPRING VALLEY WAS RETURNED TO PRIVATE OWNERSHIP AND WAS DEVELOPED FOR RESIDENTIAL AND OTHER USES. THE SPRING VALLEY COMMUNITY NOW CONSISTS OF AMERICAN UNIVERSITY, SIBLEY HOSPITAL, 27 EMBASSY PROPERTIES, ABOUT 1,500 PRIVATE RESIDENCES AND SEVERAL COMMERCIAL PROPERTIES.

TO ADDRESS POSSIBLE HEALTH AND SAFETY ISSUES IN SPRING VALLEY, A PARTNERSHIP WAS FORMED BETWEEN FEDERAL AND LOCAL GOVERNMENT AGENCIES INCLUDING THE U.S. ARMY CORPS OF ENGINEERS, THE U.S. ENVIRONMENTAL PROTECTION AGENCY AND THE D.C. DEPARTMENT OF HEALTH. THE ARMY CORPS OF ENGINEERS IS THE LEAD AGENCY RESPONSIBLE FOR CLEANING UP THE SPRING VALLEY SITE. THE U.S. ENVIRONMENTAL PROTECTION AGENCY OVERSEES THE CLEAN-UP ACTIVITIES IN SPRING VALLEY, AND ENSURES THAT THE ARMY CORPS IS IN COMPLIANCE WITH FEDERAL ENVIRONMENTAL LAWS. THE DEPARTMENT OF HEALTH'S ROLE INVOLVES MONITORING THE CLEAN-UP ACTIVITIES IN SPRING VALLEY AND ENSURING COMPLIANCE WITH LOCAL LAWS. IN ADDITION, THE DEPARTMENT OF HEALTH IS PRIMARILY RESPONSIBLE FOR ADDRESSING ANY PUBLIC HEALTH ISSUES OR CONCERNS IN SPRING VALLEY.

THE PARTNERS HAVE COLLABORATED ON MANY SPRING VALLEY ISSUES. FOR EXAMPLE, THE PARTNERS HAVE IDENTIFIED THAT ARSENIC IS THE ONLY CONTAMINANT OF CONCERN BECAUSE

ELEVATED LEVELS OF ARSENIC HAVE BEEN DETECTED IN THE SOIL SAMPLES COLLECTED; THE PARTNERS ALSO DETERMINED THE CLEAN-UP LEVEL FOR ARSENIC; AND THE DEPARTMENT OF HEALTH PARTICIPATES IN THE GEOPHYSICAL AND OTHER ANOMALY SURVEYS WITH THE U.S. ARMY CORPS OF ENGINEERS TO DETERMINE AREAS WHERE ADDITIONAL CONTAMINATION OR ORDNANCES MAY BE BURIED. THIS PARTNERSHIP HAS BEEN VERY SUCCESSFUL AND HAS ADVANCED THE CLEAN-UP EFFORTS IN SPRING VALLEY.

IN MARCH 2001, THE MAYOR ESTABLISHED AN INDEPENDENT PANEL COMPRISED OF NATIONALLY REKNOWN ENVIRONMENTAL HEALTH SPECIALISTS, TOXICOLOGISTS, EPIDEMIOLOGISTS, AND PHYSICIANS TO REVIEW AND ANALYZE THE SCIENTIFIC DATA COLLECTED FROM THE SPRING VALLEY SITE; AND TO DETERMINE THE IMPACT OF THESE POTENTIAL CONTAMINANTS ON THE HEALTH STATUS OF THE RESIDENTS IN SPRING VALLEY. THE MAYOR'S SPRING VALLEY SCIENTIFIC ADVISORY PANEL HAS HELD FOUR MEETINGS, AND HAS MADE RECOMMENDATIONS REGARDING THE ESTABLISHMENT OF THE CLEAN-UP LEVEL IN

SPRING VALLEY, THE BIOLOGICAL TESTING OF THE RESIDENTS AND THE DEVELOPMENT OF THE DEPARTMENT OF HEALTH'S SURVEILLANCE SYSTEM TO THE PARTNERS INCLUDING THE U.S. ARMY CORPS OF ENGINEERS, THE U.S. ENVIRONMENTAL PROTECTION AGENCY AND THE DEPARTMENT OF HEALTH. THESE RECOMMENDATIONS ARE AVAILABLE TO THE PUBLIC.

THE DEPARTMENT OF HEALTH, WITH TECHNICAL ASSISTANCE FROM THE CENTERS FOR DISEASE CONTROL AND PREVENTION /AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, HAS CONDUCTED THREE EXPOSURE INVESTIGATIONS. IN ADDITION, THE DEPARTMENT OF HEALTH HAS REVIEWED DRINKING WATER DATA TO DETERMINE THE ARSENIC CONCENTRATION FOR SPRING VALLEY RESIDENTS.

THE SCIENTIFIC LITERATURE SUGGESTS DRINKING WATER IS THE PRIMARY PATHWAY OF EXPOSURE TO ARSENIC. THE DEPARTMENT OF HEALTH'S REVIEW OF THE DRINKING WATER DATA OVER THE LAST TWENTY YEARS IN SPRING VALLEY SHOWED THAT NO ARSENIC CONCENTRATION EXCEEDED THE

NATIONAL STANDARD FOR ARSENIC IN DRINKING WATER. THEREFORE, THE DRINKING WATER IN SPRING VALLEY HAS NOT PROVIDED A PATHWAY OF EXPOSURE TO ARSENIC.

IN TANDEM WITH REVIEWING THE DRINKING WATER DATA, IN JANUARY 2001, THE DEPARTMENT OF HEALTH ASKED FOR TECHNICAL ASSISTANCE FROM THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY TO COLLECT HAIR SAMPLES FROM CHILDREN ENROLLED AT THE AMERICAN UNIVERSITY CHILD DEVELOPMENT CENTER WHERE ELEVATED LEVELS OF ARSENIC WERE DETECTED IN THE SOIL. THIS BIOLOGICAL TESTING WAS CONDUCTED TO DETERMINE WHETHER THE CHILDREN HAD BEEN EXPOSED TO ARSENIC.

HAIR SAMPLES WERE COLLECTED FROM 28 CHILDREN ENROLLED AT THE CHILD DEVELOPMENT CENTER BETWEEN THE AGES OF 2 ½ TO 5 ½ YEARS OF AGE AND 4 ADULT STAFF AT THE CHILD DEVELOPMENT CENTER DURING THE PERIOD OF JANUARY 31, 2001 TO FEBRUARY 1, 2001. BASED ON THE CURRENT SCIENTIFIC LITERATURE, THE RESULTS SUGGESTED THAT THE

LEVELS OF ARSENIC CONCENTRATION IN HAIR ARE NOT ASSOCIATED WITH ANY ADVERSE HEALTH EFFECTS.

IN MARCH 2002, THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY PERFORMED HAIR AND URINE SAMPLING ON THE RESIDENTS IN SPRING VALLEY TO DETERMINE IF THE RESIDENTS HAD BEEN EXPOSED TO ARSENIC. THE EXPOSURE INVESTIGATION OF ARSENIC WAS CONDUCTED ON THOSE HOMES THAT HAD THE HIGHEST ARSENIC LEVELS IN THE COMPOSITE SOIL SAMPLES TAKEN FROM THEIR YARD.

DURING THE EXPOSURE INVESTIGATION, 32 INDIVIDUALS (23 ADULTS AND 9 CHILDREN) AND 13 HOMES WERE EVALUATED FOR ARSENIC EXPOSURE. ALL BUT 4 INDIVIDUALS HAD NO DETECTABLE ARSENIC LEVELS IN THEIR HAIR SAMPLES. THE 4 INDIVIDUALS WHERE ARSENIC WAS DETECTED, DID NOT HAVE ELEVATED LEVELS OF ARSENIC IN THE HAIR SAMPLE.

SIMILARLY, THE URINE ARSENIC SAMPLES SHOWED NO ELEVATED CONCENTRATION THAT ARE KNOWN TO BE ASSOCIATED WITH ADVERSE HUMAN HEALTH EFFECTS.

NOT ONLY DID THE DEPARTMENT OF HEALTH TEST URINE AND HAIR AS A BIOLOGICAL MEASUREMENT OF EXPOSURE TO ARSENIC, WE ALSO TESTED THE DUST IN THE HOMES AS A SURROGATE MEASURE OF EXPOSURE TO ARSENIC. THE LEVELS OF ARSENIC FOUND IN THE DUST SAMPLES SUPPORTED THE VALUES IDENTIFIED IN THE URINE AND HAIR SAMPLES.

DURING THE SUMMER OF 2002, THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY BEGAN THE SECOND PHASE OF THE BIOLOGICAL TESTING OF THE SPRING VALLEY RESIDENTS TO DETERMINE IF THEY WERE BEING EXPOSED TO ARSENIC DURING A PERIOD WHEN THEY WERE MOST LIKELY TO BE PARTICIPATING IN OUTDOOR ACTIVITIES. IN COOPERATION WITH THE DEPARTMENT OF HEALTH, THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY IDENTIFIED INDIVIDUALS FOR URINE ARSENIC TESTING. THESE INDIVIDUALS INCLUDED THOSE WHO WERE PREVIOUSLY TESTED IN MARCH 2001; PEOPLE WHO LIVED ON PROPERTIES WITH HIGH GRID VALUES; AND THOSE RESIDENTS WHO LIVED ADJACENT TO PROPERTIES THAT WERE REMEDIATED.

URINE ARSENIC LEVELS WERE TESTED ON 40 INDIVIDUALS – 34 ADULTS AND 6 CHILDREN. ALL BUT 3 INDIVIDUALS HAD NO DETECTABLE ARSENIC LEVELS IN THE URINE SAMPLES COLLECTED. SIMILAR TO THE FIRST EXPOSURE INVESTIGATION, THE RESULTS FROM THESE URINE SAMPLES SHOWED THAT THE ARSENIC LEVELS OBSERVED ARE NOT ASSOCIATED WITH ADVERSE HUMAN HEALTH EFFECTS.

THE DEPARTMENT OF HEALTH, UNDER THE DIRECTION OF DR. MICHAEL RICHARDSON, SENIOR DEPUTY DIRECTOR FOR THE OFFICE OF PRIMARY CARE, PREVENTION AND PLANNING AND CHIEF HEALTH OFFICER, HAS DEVELOPED A SURVEILLANCE SYSTEM TO CHARACTERIZE ARSENIC-RELATED DISEASES AND DISORDERS BY PERSON, PLACE AND TIME. THE PRIMARY OBJECTIVE OF THE SURVEILLANCE SYSTEM IS TO DETERMINE THE NUMBER OF “SUSPECTED” CASES OF ARSENIC-RELATED DISEASES AND DISORDERS IN THE SPRING VALLEY COMMUNITY THAT HAVE BEEN CLINICALLY DIAGNOSED BY A PHYSICIAN. [DR. RICHARDSON: PLEASE PROVIDE BRIEF STATEMENT ON RESULTS]

IN ADDITION TO THE EXPOSURE INVESTIGATIONS AND SURVEILLANCE EFFORTS, THE DEPARTMENT OF HEALTH HAS PROVIDED TECHNICAL OVERSIGHT AND GUIDANCE TO THE U.S. ARMY CORPS OF ENGINEERS IN THE CLEAN-UP EFFORTS AT SPRING VALLEY. WE HAVE SUPPORTED THE SPRING VALLEY COMMUNITY BY REVIEWING THE U.S. CORPS OF ENGINEERS' SOIL SAMPLING STRATEGY, REVIEWING THE CLEAN-UP LEVELS, RECOMMENDING FURTHER SOIL SAMPLING AND MONITORING THE CLEAN-UP ACTIVITIES.

CONCLUSIONS

IN CLOSING, THE DEPARTMENT OF HEALTH'S PRIMARY CONCERN IS TO PROTECT THE HEALTH AND SAFETY OF THE RESIDENTS OF SPRING VALLEY. TO ACCOMPLISH THIS OBJECTIVE, THE DEPARTMENT WILL MAINTAIN AND STRENGTHEN THE WORKING RELATIONSHIP WITH OUR PARTNERS: THE U.S. ARMY CORPS OF ENGINEERS, THE U.S. ENVIRONMENTAL PROTECTION AGENCY, OTHER GOVERNMENT PARTNERS, AND MOST

**IMPORTANTLY, THE RESIDENTS OF SPRING VALLEY TO ENSURE
THAT THE SITE IS PROPERLY MONITORED AND CLEANED-UP.**

**I INVITE ANY QUESTIONS THAT YOU MAY HAVE CONCERNING
THE WORK OF THE DEPARTMENT OF HEALTH OR MY
TESTIMONY.**

**THANK YOU AGAIN FOR THE OPPORTUNITY TO PARTICIPATE IN
THIS HEARING.**