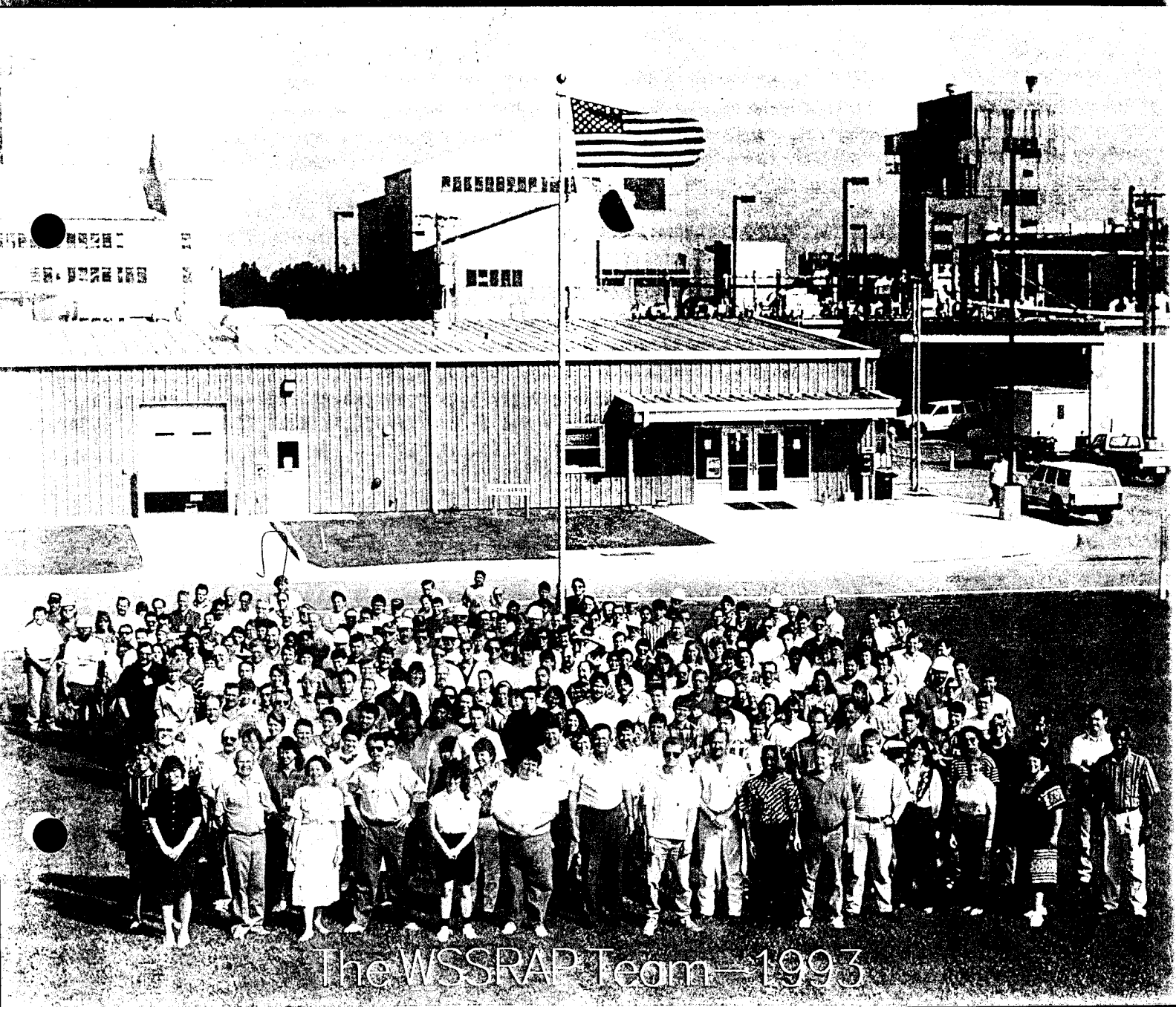
WSSRAP

UPDATE

VOL. 5 NO. 2 SEPTEMBER 1993

Distributed to residents of St. Charles County to report on the progress of the Weldon Spring Site Remedial Action Project



The WSSRAP Team—1993

Next Phase of Cleanup Under Way
Quarry Bulk Waste Excavation Begins

A site milestone was reached on May 27 when the first load of material from the quarry was hauled to the chemical plant site.

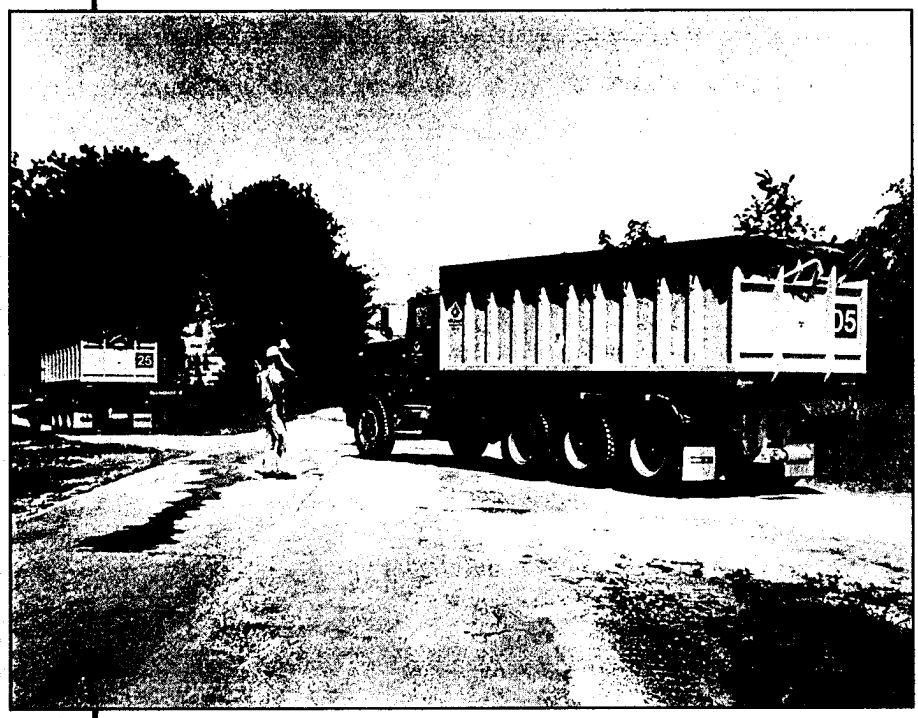
This truckload of logs and vegetation transported up the dedicated haul road to be shredded and mulched was the first of many loads of the approximately 100,000 cubic yards of contaminated materials to be moved to the engineered Temporary Storage Area (TSA).

Even before any removal operation of solid waste could begin, it was necessary to have both the quarry and site water treatment plants operating successfully.

To date, seven batches of treated water, totaling approximately five million gallons, have been discharged to the Missouri River under a permit issued by the State of Missouri.

So far, all batches of treated water from both plants have been analyzed by the State, Environmental Protection Agency (EPA), water and health departments of St. Charles and St. Louis counties and Department of Energy (DOE).

In each instance, tests of the treated water revealed that radioactive and chemical contaminants had been removed to levels far better than required to protect human health and the environment.



The first load of waste in covered containers brought from the quarry to the chemical plant via the dedicated haul road.

First Record of Decision

Removal of the quarry bulk waste was the subject of the Project's first Record of Decision signed by the EPA in September 1990 by EPA and DOE. Material to be excavated includes building rubble, drummed waste, sludge, soil and other materials contaminated with radionuclides and chemicals buried to a depth of 40 feet. The quarry cleanup was mandated to protect the adjacent St. Charles County well field water supply from possible contamination.

Quarry Project Manager Gene Valett says the excavated materials are sorted into piles and then placed onto large containers that have tight covers.

"Rubble and metals are washed at the quarry before being loaded," Mr. Valett explains. "Oversize waste is loaded onto flatbeds rather than containers and is tightly covered and wrapped before trucks leave the quarry transfer station. All containers are covered during the trip to the Temporary Storage Area,

which is located at the chemical plant."

Temporary Storage Awaiting Final Disposal

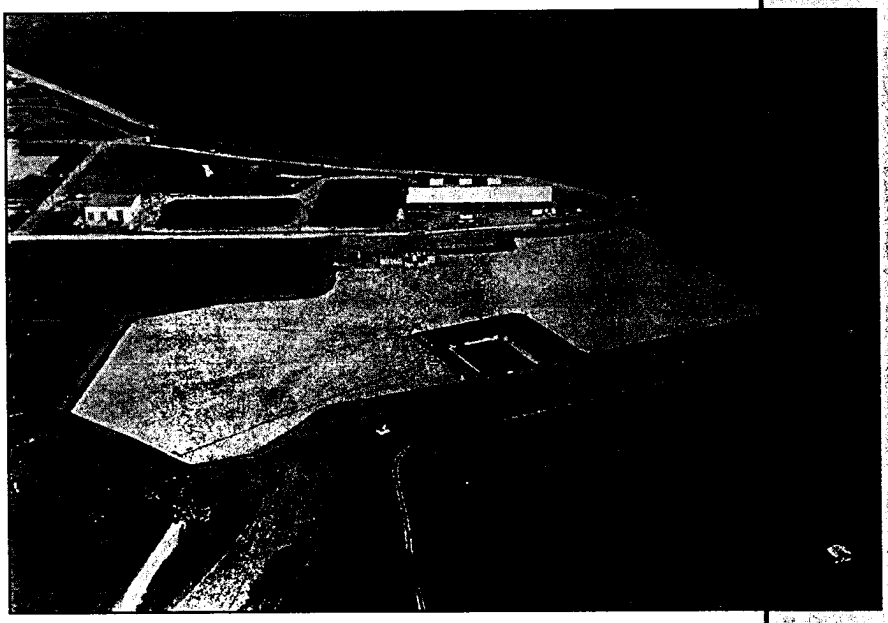
At the Temporary Storage Area (TSA), the waste containers and wrapped wastes are processed through a transfer station and placed in specified storage areas. Waste piles are segregated into such categories as soils and rubble, nitroaromatic-contaminated materials, wood materials, structural steel, and old process epuipment. As piles of waste reach final elevations, they will be covered by synthetic liner material that will be held in place by a layer of gravel and sand-filled ballast. The waste will be held in the TSA until it can be treated and permanently placed in the disposal facility.

The storage area is engineered to collect run-off and surface water so that it can be treated in the site water treatment plant before discharge to the Missouri River.

Waste containers are cleaned and decontaminated before returning to the quarry. Strict dust and radioactive emission controls are applied to all operations during the bulk waste removal. Monitoring is both visual and by instruments. Methods of control include wetting, sealants and covers.

No visual emissions are allowed during handling of known or suspected asbestos-containing material.

Monitoring is performed in the work areas to protect employees and to control dust emissions. In addition, monitors are located at the perimeter of the chemical plant and at the quarry fence line.



Bulk waste from the quarry will be temporarily placed in this specially engineered storage area at the chemical plant site.

Radon detectors in the work areas as well as at the perimeters of the quarry insure that no detectable emmisions are permitted past the quarry boundaries

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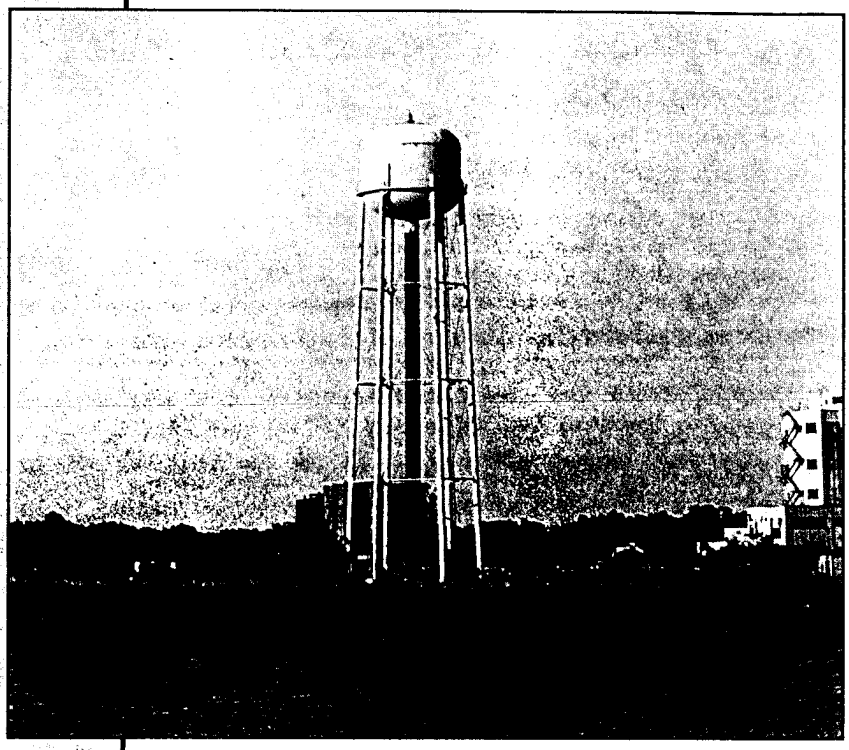
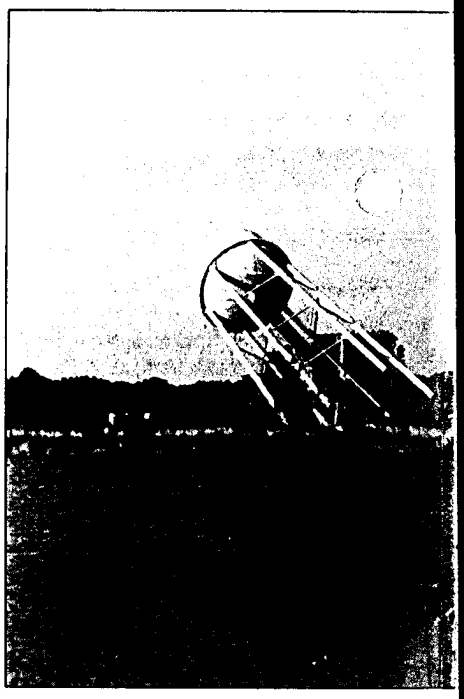




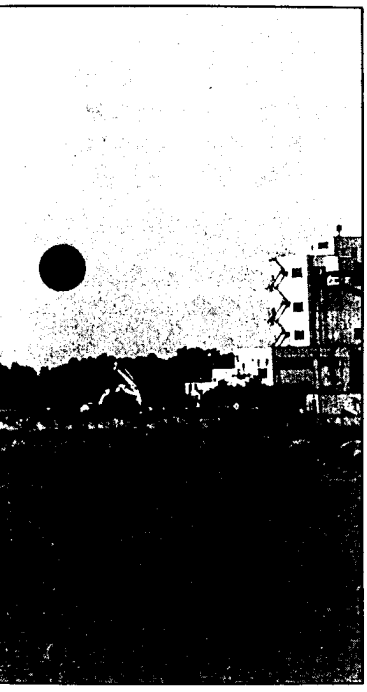
At 7:00 p.m. July 8, following many delays due to severe thunderstorms, workers at the Weldon Spring Site brought down a 185-foot high water tower. The removal of this well recognized landmark emphasizes the site's changing skyline.

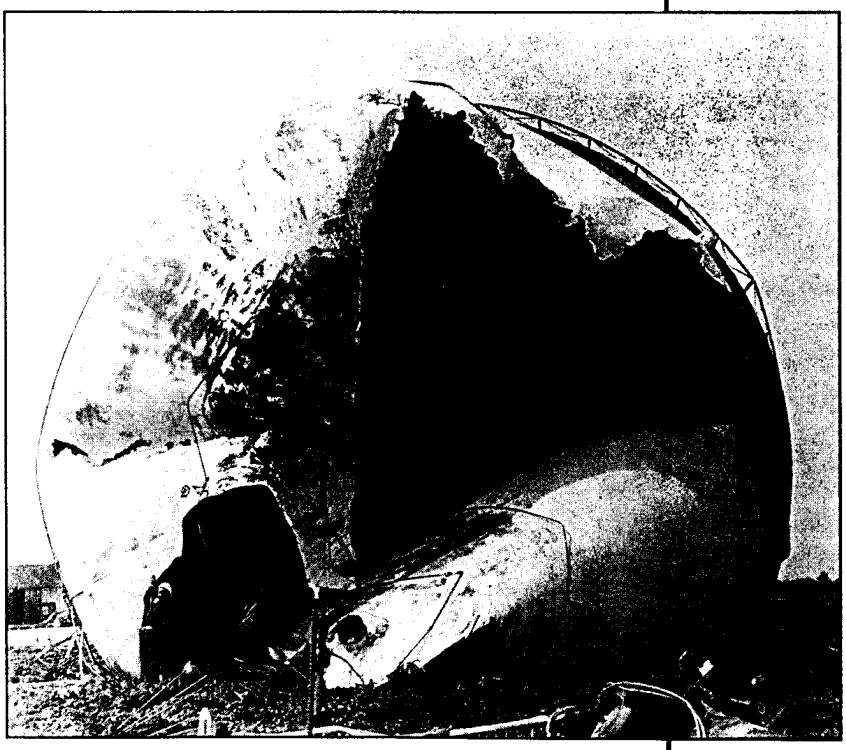
Although the 350,000 gallon water tower was a relatively small part of the total cleanup project at the WSSRAP, the structure dominated the chemical plant skyline, and its dismantlement was symbolic of progress.

The water tower was built in 1955 to support chemical plant operations. Following the closing of the plant in 1966, St. Charles County took possession of the water service system. In 1992 the DOE provided St. Charles County with funds to construct a new tower one-half mile from its original location.

The tower was collapsed with the use of a cable and dozer after three of the structure's six legs had been cut through and notched with acetylene torches. The operation went smoothly in a safe and controlled manner.

IDMARK COMES DOWN





The WSSRAP Skyline Changes One Building at a Time

Recent months have seen some changes to a skyline that has been a familiar sight for local residents for nearly 40 years.

Over 24 of the 40-plus structures at the site have been dismantled to date. By the end of July, one of the site's largest and most contaminated buildings, the metals plant, was completely dismantled.

Emissions Control

Dust-control measures, such as wetting and covering surfaces, minimizes particulate emissions during all phases of the dismantlement activities. Air in the work area is monitored for asbestos and radioactive particulates as part of a comprehensive detection and mitigation system.

Prior to structural dismantlement, the buildings are cleaned inside. All radioactively contaminated surfaces are cleaned manually. Workers, wearing full protective equipment and respirators, remove asbestos-containing materials from the buildings. They are safely contained and stored on-site. Then, an aggressive vacuuming and wiping of equipment exteriors and building interiors prepare the buildings for dismantlement.

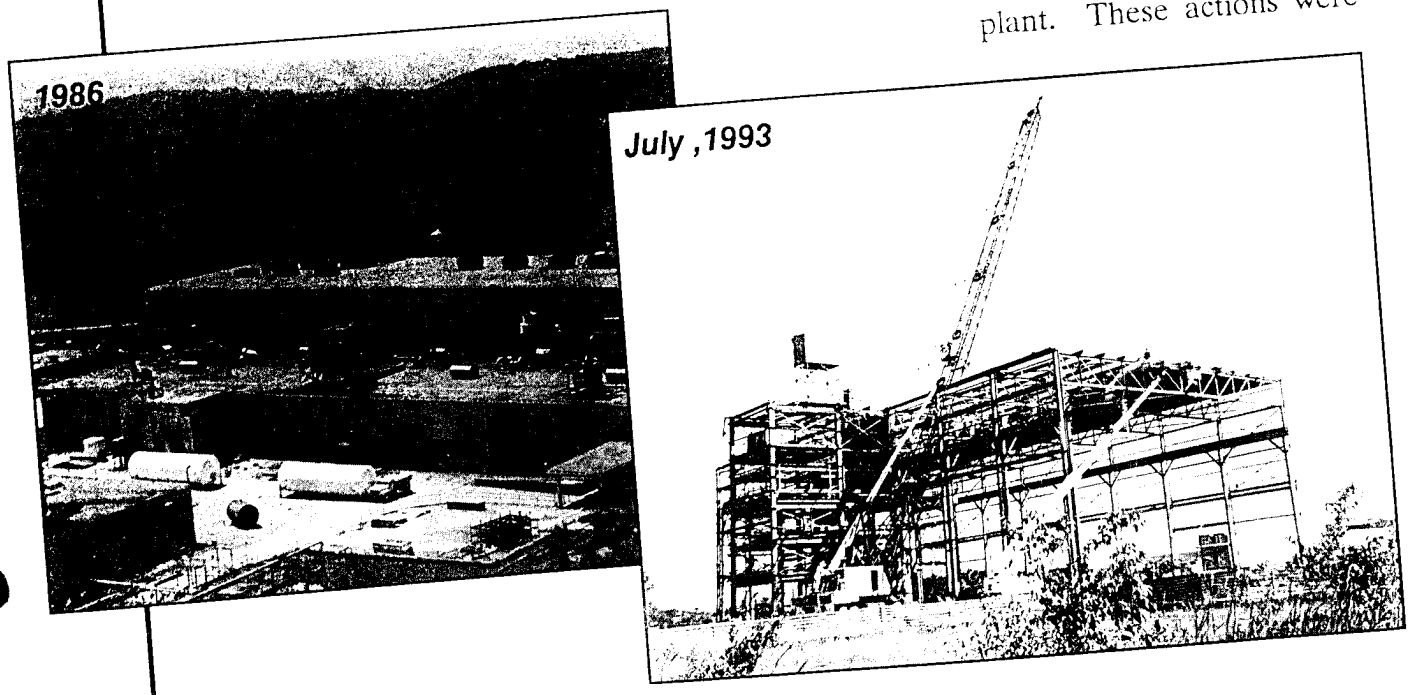
As the buildings are disassembled, further decontamination of previously inaccessible surfaces is accomplished.

DOE Project Manager Stephen H. McCracken says, "All of this and more is done to ensure that neither the workers on site, nor people nearby are affected by our remedial efforts here.

"Results of air monitoring at the fence line are consistent with our commitment to the school district that nothing will reach the High School," McCracken adds.

The Project began taking down structures in 1987 with the dismantlement of the plant's administration building and partial dismantlement of the steam plant. These actions were

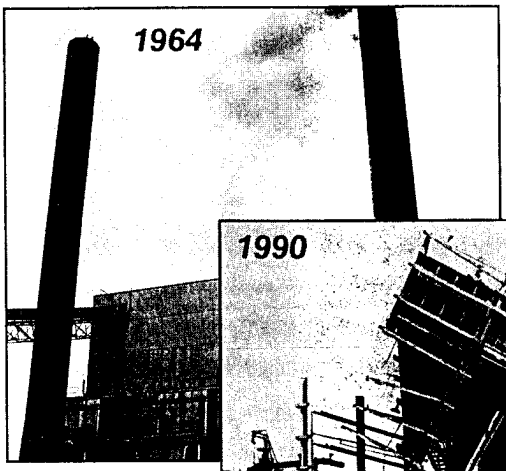
Metals Plant



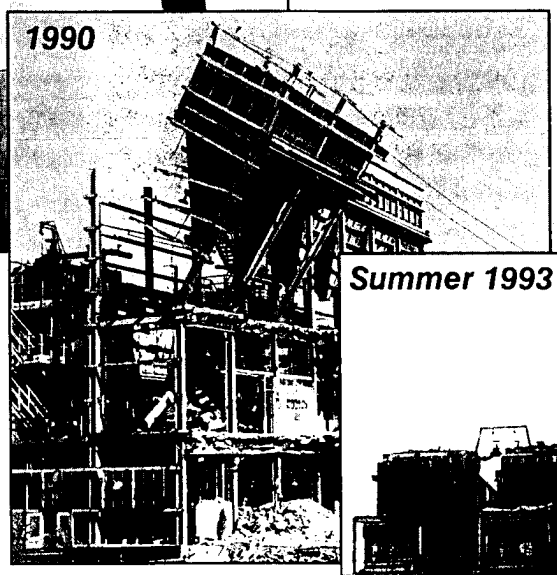
conducted as part of an interim response action program. Under this program certain cleanup activities could begin that would stabilize the site without prejudicing the final decision on the treatment and disposal of the waste.

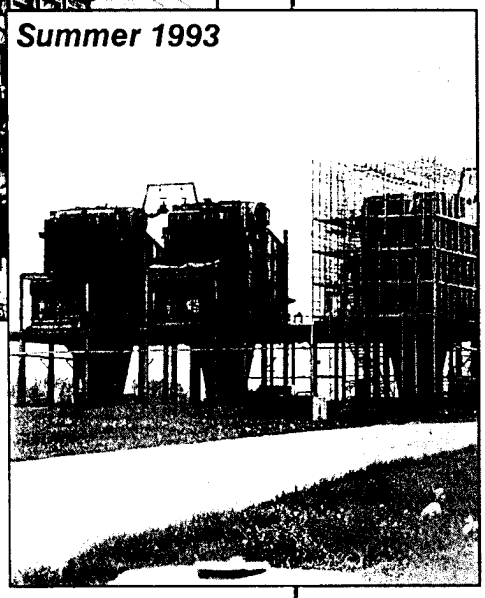
In 1991 dismantlement of 15 non-process buildings was undertaken to make way for the construction of a site water treatment plant and a temporary storage area for quarry bulk waste.

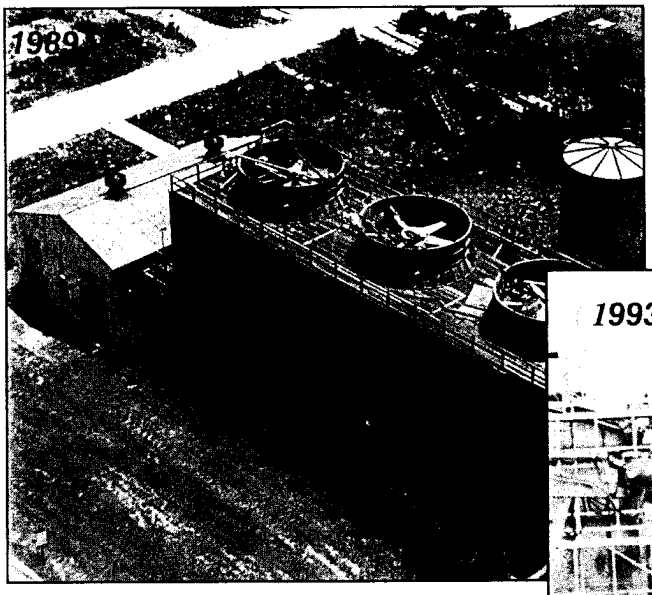
Several building dismantlement activities, including the final phase of the steam plant demolition, are well underway, and it is expected that by October 1995 all structures at the site will be dismantled.



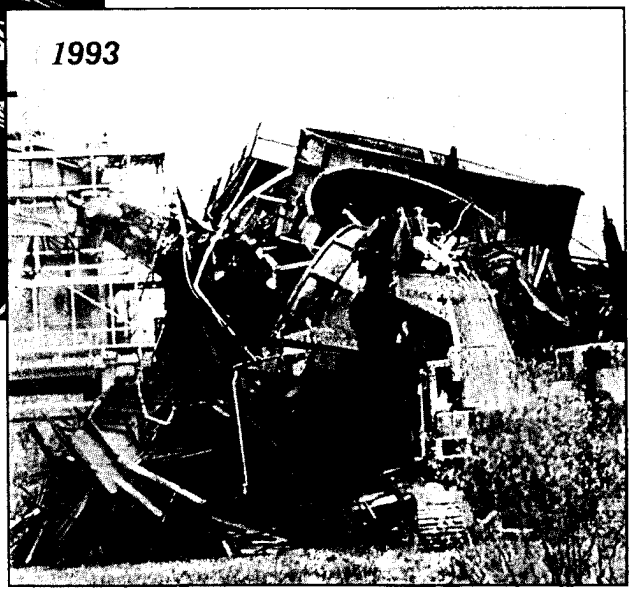
Steam Plant







Cooling Tower



FEDERAL GRANT ASSURES STATE OVERSIGHT

Working under a multi-year DOE grant, the Missouri Department of Natural Resources (MDNR) began conducting oversight activities at WSSRAP in December.

Don Kerns is the State Project Manager for the WSSRAP Section of MDNR's Hazardous Waste Program. Headed by Robert Geller, the six-person team is expected to grow as large as 20. Mr. Kerns says that eventually the team will oversee all federal facilities in the state including the Formerly Utilized Sites Remedial Action Program (FUSRAP) that includes the St. Louis Airport Site, former Mallinckrodt operations on North Second Street and the Weldon Spring Army Training Area that adjoins the WSSRAP.

The DOE grant covers costs of labor, equipment and materials used by the MDNR team at WSSRAP and was established to assure sustained, independent monitoring of the cleanup.

Mr. Kerns says the state of Missouri's objective is to insure that the waste is properly managed and that its final disposal will be protective of human health and the environment.

"I am impressed with the scope of the project," he says. "There are so many different operations underway all the time. I'm also impressed with the water treatment facilities that are state of the art."

A geological engineering graduate of the University of Missouri at Rolla, Mr. Kerns has been active in the environmental field for the past six years. He has done field work in California, Michigan, Missouri, Iowa and Kansas.

WSSRAP OPEN HOUSE II

COME AND EXPLORE WSSRAP'S PAST, PRESENT AND FUTURE THROUGH THE MANY DISPLAYS, PRESENTATIONS AND TOURS DURING OPEN HOUSE

SATURDAY, SEPTEMBER 18, 1993

11:00 A.M.- 4:00 P.M.

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Address all inquiries to:
WSSRAP Update
Community Relations Department

7295 Highway 94 South
St. Charles, Missouri 63304
Telephone (314) 441-8086

DOE Project Manager Stephen H. McCracken
PMC Project Director James R. Powers