



# EPA

# SUPERFUND EMERGENCY RESPONSE PROGRAM

United States Environmental Protection Agency Region 9

Volume 3

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## New River Update

*New River, AZ - Although the proposed incineration of the shed at 44830 N. 27th Avenue is still on hold, a number of actions have been taken since our last update:*

*Evacuation radius has been finalized at 1.2 miles*

*EPA sampling plan is being amended to include groundwater and livestock feed*

*U.S. Health & Human Services agency has examined the site*

*Air inside the shed has been sampled*

*CCNR-hired explosives expert has examined the shed*

*ATF & EPA have removed chemicals and explosives from the site*

*Information Repository has been established*

### **BACKGROUND:**

In September 1997, the U.S. District Court for the District of Arizona issued a search warrant to the Bureau of Alcohol, Tobacco and Firearms (ATF) allowing them to search the property at 44830 N. 27th Avenue, New River, AZ, for violations of federal explosives laws. ATF found over 2000 pounds of explosives and over four tons of chemicals used in the manufacture of explosives in various buildings on the property.

Controversy centers on the proposed incineration of one of the buildings on site. The building is a 20 ft. x 45 ft. wooden shed that contains 60 to 80 pounds of explosives and no more than 800 pounds of chemicals used in the manufacture of explosives. Most of the chemicals are in half-pint to gallon quantities stored in cans, jars, vials, film

canisters and boxes. Many of the chemicals and containers are in a deteriorated condition, e.g., rusted cans, crystals growing out of jars. Some of the chemicals have not been identified. Among those that have been identified, some are classified as hazardous substances. The quantity of unknown materials in the shed equals approximately one 55-gallon drum. Because of the presence of unstable chemicals and unstable explosives, it has been proposed that the shed be incinerated. The U.S. Environmental Protection Agency (EPA), at the request of the Arizona Department of Environmental Quality (ADEQ), is assisting with the design of the incineration and with the evaluation of the proposal's environmental effects.

## **Evacuation Radius Finalized at 1.2 Miles**

The initial evacuation radius has been modified after a more in-depth evaluation on the part of EPA's Environmental Response Team Center (ERT). The original evacuation radius was based on the "North American Emergency Response Guidebook," which recommends evacuation distances for hazardous spills. Since there are unknowns in the shed, organophosphate pesticides were used as a stand-in to provide the most conservative evaluation. The Guidebook recommends an evacuation radius of 1.2 miles for small spills (55 gallons and less) of toxic compressed gases containing organophosphate. This initial evacuation radius of 1.2 miles was expanded to 3 miles to provide an additional margin of safety. At the time the sizes or types of containers in the shed had not been inventoried. Since the distance recommended in the Guidebook does not take into consideration the effect incineration will have on organic chemicals and since EPA now has a more detailed inventory, the larger evacuation radius is no longer necessary.

Last October, after the incineration was put on hold, a chemist from EPA's Environmental Response Team visited the site. While in New River, he reviewed the incineration plan, a more detailed shed inventory, meteorological data for the area, and flew over the site. He noted that the topography where the shed is located will facilitate dispersion of any vapors. The shed is located part way up Gavilan Peak; therefore, it sits above the town. This increased elevation would cause greater dispersion (i.e., smoke stack effect).

The evacuation radius also takes into account OSHA's Permissible Exposure Limit (PEL, which is an 8-hour worker standard for a 40-hr. work week) and the Short Term Exposure Limit (STEL, which is approximately 1.5 times the PEL and is a 5 minute average or instantaneous value) for metals, which would not be destroyed by the incineration. The shed is known to contain small quantities of metal compounds: a two-gallon can of lead dioxide, one pound of mercury fulminate, one quart container of stron-

tium nitrate, etc. In contrast, hundreds of pounds of lead, mercury, and antimony (as well as toxic pesticides) would have to be released, all within one hour, in order to exceed OSHA-established PELs and STELs. EPA is recommending this evacuation radius as an extra precaution in order to be as completely protective of the citizens of New River as possible.

## **Agency for Toxic Substances and Disease Registry Visits Site**

As an additional step, EPA consulted with the Agency for Toxic Substances and Disease Registry (ATSDR), an agency under the Department of Health and Human Services, to obtain their opinion regarding the risk to human health from the proposed incineration of the shed. ATSDR reviewed the list of chemicals, their quantities and condition, and the air modeling information. On November 3, 1997, an ATSDR representative visited the site. Based on their review, ATSDR agrees that the proposed evacuation distance of 1.2 miles is adequate and protective of public health.

ATSDR strongly supports evacuation during the incineration because anyone remaining within the evacuation radius could be exposed to smoke if weather patterns change during the incineration. Inhaling smoke under any circumstances is not good, and in this case the composition of the smoke won't be known until after the air samples are analyzed.

## **Air Inside Shed Sampled and Analyzed**

At ATF's request, EPA analyzed the air within the shed to see if we could identify any vapors that could be harmful to personnel working in the shed. EPA took an air sample on December 12, 1997 using a device called a SUMMA canister. The indoor air was analyzed for over 60 different chemicals. The analysis did not turn up anything unusual nor identify anything that would account for workers feeling light-headed in the shed.

## **EPA Sampling Plan Amended to Include Groundwater and Livestock Feed**

If the decision is made to proceed with the incineration, EPA will perform air and soil sampling and, in response to community concerns, livestock feed and groundwater sampling. EPA is coordinating with the Arizona Department of Environmental Quality (ADEQ) on developing a unified sampling plan that addresses air, soil, groundwater and feed.

Although EPA is sampling groundwater, the incineration will not cause groundwater contamination. By-products from the incineration of the shed would be similar to those from any structural fire and would not permeate the soil and reach groundwater. Small amounts of metals and other inorganic materials would be released in the first few minutes of the fire. No material is present in large enough quantities to make these emissions significant, and it is unlikely that emissions will migrate beyond the site. The materials, such as thermite, that would be used to raise the fire temperature to achieve a cleaner burn, do not burn through soil and do not pose a threat to groundwater. EPA will take a number of groundwater samples from within the evacuation radius before and after the incineration to verify this expectation.

Since EPA does not expect contaminants to migrate offsite in the event of the incineration, we don't expect livestock feed to be at risk. Nevertheless, in response to community concerns, we have added feed sampling to our sampling plan. Under the revised plan, EPA will collect 4-6 types of livestock feed that are fed to the varied livestock found in New River. A series of sample trays with feed will be set out at specific locations within the evacuation radius. Feed samples will be analyzed for total metals and for semi-volatile compounds.

## **Explosives Expert Hired by CCNR Examines the Shed**

On November 24, 1997, the ATF, with the approval of the U.S. Attorney's Office, allowed an inde-

pendent explosives expert hired by the Concerned Citizens of New River to inspect the shed. At this writing, we have not yet received his report.

## **Chemicals and Explosives Taken Off Site**

When ATF first searched the ranch at 44830 N. 27th Ave., they found explosives and chemicals in other locations besides the shed. In October 1997, EPA recovered and packaged for transport approximately four tons of chemicals found on the ranch.

As you know, ATF detonated some of the explosives on site last September. ATF also found additional caches of explosives on the property. ATF has removed about 2000 pounds of explosives that were in other locations on the ranch.

The Department of Defense (DoD) visited the site in October and November 1997. Later, DoD recommended removing 25 specific containers from the shed. ATF acted upon this recommendation. ATF was able to remove 23 of the 25 containers DoD wanted removed, and in the process removed about 240 pounds of other chemicals. The two containers ATF was unable to move are rusted cans of strontium nitrate and lead dioxide. The chemicals removed from the shed were packaged and added to the other chemicals retrieved and packaged by EPA back in October for transport to a licensed disposal facility. All of the packaged chemicals were shipped off site in early January.

Another 350 to 400 pounds of explosives remain in a bunker and will be shipped off site. Once those explosives are removed, all that will remain on site will be the materials in the shed and another 150 pounds of explosives in a bunker that haven't been identified as safe to remove. The disposal of these remaining explosives is on hold pending a final disposition of the shed. The community of New River will be advised prior to any detonation.

### Information Repository Established-- Two New Ones Added

A copy of the Administrative Record of this removal action is available at the Phoenix Public Library at 1221 North Central Ave. in Phoenix. The Administrative Record is a file that includes all finalized documents upon which EPA has based its decision to conduct a removal action at the site. Since very few documents have been finalized to date, the official record is slim. However, as documents are finalized, they will be added to the Record. EPA is setting up two additional information repositories since residents of New River have said they would like information closer to home.

The **New River Senior Center** has graciously agreed to serve as a second information repository. The Senior Center is located at 48606 N. 17th Ave. The center is open three days a week: Monday, Wednesday and Friday from 9:00 a.m. to 3:00 p.m.

In addition, a copy of the Administrative Record will be kept by the **Juniper Branch Library** at 1825 West Union Hills Drive (cross street 19th Ave.) in north Phoenix.

The Juniper Branch Library is open daily

Monday thru Thursday	9:00 a.m. to 9:00 p.m.
Friday and Saturday	9:00 a.m. to 6:00 p.m.
Sunday	1:00 p.m. to 5:00 p.m.

These informal information repositories will contain working documents and other supporting papers related to the site.

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