

# The Corps' FUSRAP Work and Investigation of the Tonawanda Landfill and Mudflats Area

1. The Corps' first priority is to safeguard the health and safety of the community adjacent to and surrounding the Tonawanda Landfill
2. The Formerly Utilized Sites Remedial Action Program (FUSRAP) is Congress' funding authority to address potential contamination that is a result of industrial activities conducted in support of the Government's early atomic energy program.
3. The Corps has been managing FUSRAP since 1997.
4. When the Corps, Buffalo District, received the FUSRAP mission, we assembled a team of experts from Corps districts, divisions, and centers of expertise across the nation. We continually draw upon the resources of this team in planning and executing this work.
5. Congress mandated that the Corps follows the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process in executing FUSRAP. Our plans are fully protective of human health and the environment, and also take into account Nuclear Regulatory Commission and Environmental Protection Agency regulations that are relevant to each site.
6. This type of work is not new to us. Prior to the assignment of FUSRAP by Congress to the U.S. Army Corps of Engineers, Buffalo District maintained a hazardous, toxic and radioactive waste design center and successfully managed many environmental cleanup programs.
7. It is the Buffalo District's policy to be honest, forthright, responsive and clear in communicating with the public, elected officials and the media. This cleanup program is highly technical in nature. In every instance, we make every effort to provide and clearly explain very specific, detailed information.
8. The public is a vital partner in the Corps remediation efforts. At the Tonawanda Landfill, local officials and the community have been strong voices in the decision-making process since the Corps' involvement started at the end of 1997.
9. The Corps, under the Formerly Utilized Sites Remedial Action Program (commonly known as FUSRAP), investigated the Tonawanda Landfill Site for radioactive residuals resulting from past activities of the Manhattan Engineer District or Atomic Energy Commission.

10. Our investigations showed that while there are isolated locations at the Tonawanda Landfill site with levels of uranium, radium and thorium above normal background radiation, the human health risks, for current and potential future site uses, remain within the safe risk limits established by the USEPA.
11. We conducted extensive onsite sampling at the Landfill and Mudflats area. We also were privy to the vast amount of onsite sampling conducted by the DOE in the 1990s. In the end, we analyzed over 600 samples from over 200 different sampling locations. We also took groundwater samples from the NYS DEC monitoring wells there on the Landfill and compared the results to USEPA drinking water limit – even though groundwater is not the source of our drinking water in the WNY area.
12. We then took this vast amount of sampling data and developed a Baseline Risk Assessment for the Tonawanda Landfill site, all the while stringently following all USEPA regulations and guidance. A risk assessment is important because if our calculations exceeded USEPA limits, we would be required to take action and remediate the site. Because our assessment showed results that were within EPA risk limits, we were able to conclude that the human health risks posed from the site are within safe USEPA risk limits (for both current and reasonable future site uses).
13. It is because of all these results and assessments that we concluded that No Action is needed at Tonawanda Landfill for the 3 radionuclides we were looking for: radium, thorium and uranium.
14. As part of the decision making process, we developed a Proposed Plan for the public to review and comment on. We are currently in the middle of the comment period for this report. After tonight there are still 60 more days left on the comment period.
15. We collect comments through the mail, by email and through meetings such as this one tonight. When we collect review comments through a public meeting forum, we hire a court recorder to record the proceedings and provide a verbatim transcript of all comments received – so that nothing is lost.
16. For the Tonawanda Landfill site, the Corps will not reach a final decision until we carefully review and evaluate all comments received about the Proposed Plan. The purpose of the public review and comment period we are currently going through (until June 26, 2007) is to actively collect and evaluate public comment—public comment that very well may provide us with new information that may even indicate that revisions to the Proposed Plan are appropriate.

17. We are not only open to public comment; we have been earnestly soliciting it. We have been placing ads in the local papers, mailing out information to community members and talking to local media to get the word out. We understand that the best solution can only be achieved after listening to all ideas and concerns.
18. Additionally, we understand the residents' concerns about the possibility that the radionuclides we located within the Landfill have migrated onto their properties. Once again, the Corps is limited in our authority to address that concern. We wish this wasn't the case, but FUSRAP limits our investigation and remediation authority to the boundaries of the site property as designated into FUSRAP, and any contiguous properties where there is evidence that contamination has naturally migrated. Because our sampling efforts, as well as those conducted by DOE, have never shown any indication that the uranium, radium and thorium found on the site has ever migrated or extended onto neighboring residential property, we are constrained to the boundaries of the site. Absent evidence of migration onto the neighboring properties, we do not have the authority under FUSRAP to arbitrarily expand our investigations beyond the boundaries of the designated FUSRAP site.
19. Because we'd like to help provide a solution to this request, and other issues related to the Tonawanda Landfill, the Corps has worked with NYSDEC and NYSDOH to figure different way to meet the community's needs. Though the Corps can't test on private property unless migration is proven, NYSDEC can as the environmental regulator and representative for the people of New York State. NYSDEC is planning to conduct gamma walkover surveys of adjacent properties and will share that information with the Corps, other agencies and the public. It is a big step in the right direction.
20. The DOE designated the site into the FUSRAP in 1992, based on early investigations that found radioactive material in site soils similar to material found at other FUSRAP sites. While uranium, radium and thorium residues present at the Tonawanda Landfill may very well have originated from the Linde Site, we do not know how they got into the Tonawanda Landfill.
21. As part of our investigation process, we performed an extensive investigation related to the site's ownership and past operational history. We researched hundreds of historical documents, conducted interviews, and examined hundreds of old photographs. To date, FUSRAP policy has been to only designate (into FUSRAP) those sites where there is a clear indication of Federal Government responsibility. For the Tonawanda Landfill site, this policy has presented a challenge, as we have been unable, despite our extensive historical records search, to find any documentation indicating that the Federal Government placed any waste in the Tonawanda Landfill.

22. Fortunately, because the DOE already designated the Tonawanda Landfill into FUSRAP (in 1992) prior to the Corps' involvement, we do believe we that the Corps does have the authority to investigate the site and take whatever action is necessary if the results of our investigations had shown unacceptable risk to human health and the environment. Fortunately, our investigations did not show risks above USEPA limits. If new information or further directives are provided during the public comment period, the Corps will continue its commitment to community safety and sound science.

23. The Remedial Investigation released by the Corps in March 2006 concluded that while there are small areas within the Landfill containing radioactive residuals similar to those found at other FUSRAP sites, the risks from those residuals to current and potential future site users are within the acceptable risk limits established by the USEPA. In other words, the radioactive residuals that we investigated for (radium, thorium and uranium) do not pose a threat to people using the site in its current condition as an active landfill. And, in the future, once the Landfill is capped by the property owner (the Town), there will even be less of possibility of any risk.

24. The Corps of Engineers has no regulatory authority over the Town of Tonawanda with respect to the landfill closure, and cannot direct the Town to take any action with respect to the Tonawanda Landfill. Our authority is limited to investigating the Landfill for potential radioactive residuals from past activities of the Manhattan Engineer District or Atomic Energy Commission.

25. The New York State Department of Environmental Conservation is the regulatory agency for landfills within New York State. The Corps of Engineers has shared our investigation information with the Town of Tonawanda and the Department of Environmental Conservation.

#### **Soil Sampling:**

26. 202 Sample locations in the Landfill; over 600 soil samples analyzed

27. 23 Sample locations along the residential fence line

28. Soil samples analyzed for uranium, radium and thorium

29. 80% of the sample locations had results at background levels normal for the area

30. All sample locations within 50 feet of the residential fence line had results at background levels normal for the area

### Groundwater Sampling:

31. Groundwater is not used as a drinking water source for the area, and there are no private wells within 3 miles of the Landfill
32. Groundwater samples collected from 10 Town of Tonawanda monitoring wells in the Landfill, and analyzed for uranium, radium and thorium
33. The monitoring well closest to the fence line did not exceed Federal drinking water limits
34. Of the 10 wells sampled, only 1 had uranium exceeding the Federal drinking water limit

### Risks to Human Health:

35. The Corps of Engineers took the sampling data and evaluated risks to human health from uranium, radium and thorium
36. The Corps considered the presence of residences adjacent to the Landfill, and the fact that some residents may use the Landfill for recreational purposes
37. The Corps evaluated the risk to residents coming onto the Landfill in its current uncapped condition, and after it is capped
38. Risks were compared to risk limits established by the U.S. Environmental Protection Agency (USEPA)
39. Risks from uranium, radium and thorium for current and future land uses are at or below USEPA risk limits
40. The Corps also evaluated the dose from uranium, radium and thorium; and compared the dose to Federal limits and State guidelines
41. Doses from uranium, radium and thorium for current and future land uses are below Federal limits and ***State guidelines***