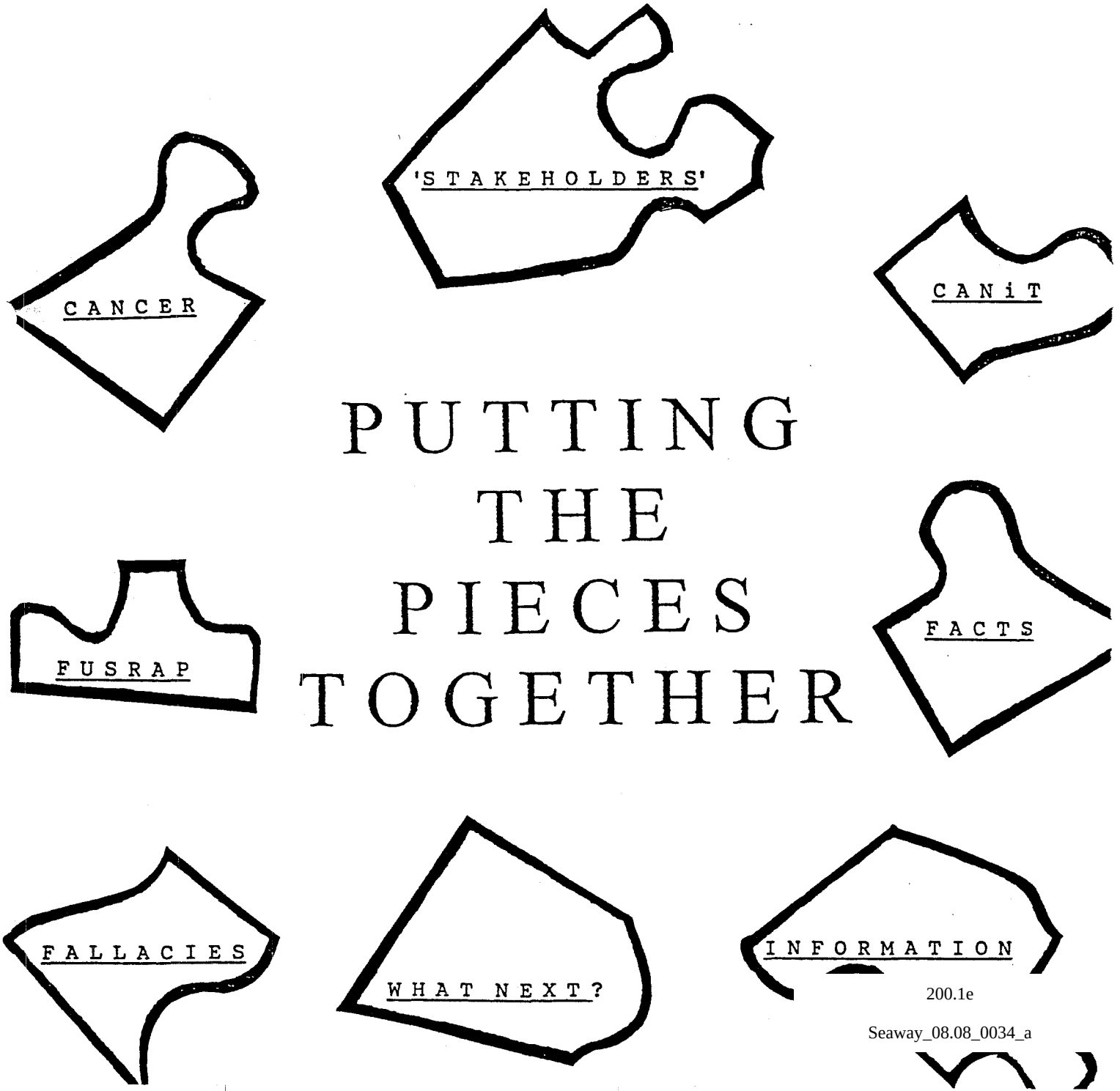
F. A. C. T. S.

(FOR A CLEAN TONAWANDA SITE)

November, 1994 P.O. Box 566 Kenmore, NY 14217-0566 Volume 1, No. 1



Purpose of the newsletter

We believe there is a need and interest, by those members of the public who are sincerely concerned about the future of our town, to disseminate accurate and timely information concerning the Tonawanda nuclear waste site. It is for this reason we feel that there should be a communications tool to carry out this mission. After discussion, it was decided the most effective tool would be a newsletter. Thus, this newsletter, FOR A CLEAN TONAWANDA SITE (F.A.C.T.S.), was brought into being.

F.A.C.T.S. is edited by Don Finch. Phone: (716) 876-9552. We encourage your comments and/or letters. Material submitted for publication may be sent to:

F.A.C.T.S.
P.O. Box 566
Kenmore, NY 14217-0566

Informational Meetings

Since there seems to be so little information relative to the Tonawanda site being circulated, we would like to hold informational meetings. We will be checking on the availability of a meeting place and this information will be presented as soon as we find a location.

Further Information Sources

All documents concerning the site, including the Feasibilty Study/Proposed Plan-Environmental Impact Statement (FS/PP-EIS) documents, which are contained in the administrative record are available for public review at:

- DOE's Public Information Center is located at 810 Sheridan Drive - Town of Tonawanda. Emily Latko is the Center's Manager and can be reached at (716) 871-9660. Their Fax number is (716) 871-1192. The center is open Monday, Tuesday, Thursday and Friday 10AM - 5PM. Wednesday, it is open from 12PM - 5PM. and,

- Tonawanda Public Library, 333 Main Street - City of Tonawanda.

The following locations contain some of these documents (they are not complete repositories):

- Parkside Village Branch, 169 Sheridan-Parkside Drive - Town of Tonawanda;

- Kenmore Public Library, 160 Delaware Road - Kenmore; and

- Grand Island Memorial Public Library, 1715 Bedell Road on Grand Island.

DID YOU KNOW ?

The DOE's Tonawanda FUSRAP site contains 18% of the total volume of radioactive waste found in all of DOE's FUSRAP sites nationwide? To put it another way, we have almost one-fifth of the total volume nationwide located right here in our "backyard". And yet, DOE's proposed plan for Tonawanda (landfilling the waste here) accounts for less than 2.5% of the total nationwide FUSRAP budget.

OVERVIEW OF FUSRAP TONAWANDA SITE

by Jim Rauch

The Tonawanda, N.Y. site consists of four properties: Linde, Ashland 1, Ashland 2 and Seaway. These properties, as well as area ground and surface waters, were contaminated with radioactive material as a result of Manhattan Engineer District (MED) operations during World War II to produce atomic bombs. (see map, page 5)

Between 1942 and 1946, 8,000 tons of filter cake residues resulting from the processing of domestic uranium ores at Linde were dumped on the ground at Ashland 1 (in a layer 1 to 5 feet thick).

The original volume of these residues was about 4,000 cubic yards. The forces of erosion (wind and water) combined with neglectful government mismanagement after the war (transfer of material to Ashland 2 and Seaway) have spread the contamination so that now 351,000 cubic yards of soils are contaminated (based on DOE cleanup criteria - see below). ***This is almost a 90 fold increase in the contaminated volume in less than 50 years.***

The residues contain 26.5 curies (Ci) of natural uranium (6,600 lbs. per curie) consisting of 26.5 Ci each of U-238 and U-234 and 5.3 Ci of U-235, as well as unspecified amounts of thorium-230 (half-life of 77,000 years), radium-226 (half-life of 1600 years), and other decay chain members.

During MED operations at Linde contaminated liquids were also discharged: 7 bedrock injection wells on the Linde property received 55 million gallons containing 3.7 Ci of natural uranium and 5.5 Ci of Ra-226 - 9.2 Ci total. Tonawanda's storm sewers and Two Mile Creek received 56 million gallons: 3.8 Ci of natural uranium and 5.6 Ci of Ra-226 - 9.3 Ci total. Tonawanda's sanitary sewers received: 6.5 Ci of natural uranium and 2.6 Ci of Ra-226 - 9.1 Ci total. ***Neither the fate nor the remediation of these 27.3 Ci of material is addressed in DOE's draft Environmental Impact Statement (EIS) for the site.*** These releases represent over 50% of MED-related environmental contamination at the site.

CLEANUP CRITERIA:

DOE: The basic post-remediation dose limit of 100 millirem per year above background (background ranges from 100 to 300 millirem per year) translates into more than a 33% increase in cancer risk. This post-remediation dose limit is to be achieved by excavating and recontaining only those soils exceeding the following concentration criteria:

60 pCi/g U-238
5 pCi/g Ra-226 in upper 6" of soil
15 pCi/g Ra-226 in layers below 6"

N.Y. State: On 9-14-94, DEC issued TAGM-4003 (Technical Administrative Guidance Memorandum) concerning cleanup guidelines for soils contaminated with radioactive materials. This guidance requires that the highest dose received by any member of the public to be as low as reasonably achievable, and less than 10 millirem per year above background. To reach this dose level would require the downward revision of the soil concentration criteria listed above and elimination of the DOE "hot spot" exemption for small areas (less than 25 meters). This will increase the 351,00 cubic yards of soils, identified by DOE as requiring remediation, by an undetermined amount.

DOE's RISK ASSESSMENT, Baseline Risk Assessment, 8-93 performed by Science Applications International Corporation (SAIC):

This 'no action' analysis of the future hazards posed by the contamination at the Tonawanda site is seriously flawed. It contains many errors and omissions. Pathways involving water-borne exposure are excluded; the time frame used (only 150 years into the future) is ridiculously short; exposure scenarios unrealistically limit exposure pathways and especially exposure durations. ***A conservative assessment of the intrinsic radioactive hazard would assume the maximally exposed individual to be an around-the-clock resident, not a "transient" spending only 25 hours per year at the site.***

FACTORS AFFECTING THE SELECTION OF AN EFFECTIVE LONG-TERM WASTE MANAGEMENT STRATEGY:

- hazardous life of wastes more than 500,000 years;
- high potential for water-borne dispersal in Tonawanda;
- current and expected future proximity to dense human population and construction activities;
- wind erosion dispersal;
- radon gas emanation;
- gamma radiation shielding;
- other geologic factors: earthquake or volcanic activity.

Public recognition of the need to prevent further increase in the waste volume and the need for indefinite environmental monitoring are essential if long-term waste isolation is to be successful and cost-effective.

Inability to prevent further erosion and dispersal by water, proximity to human population, and earthquake potential are the major factors indicating relocation of the wastes is necessary. Clay containment at Tonawanda can be expected to fail in 200 years, perhaps sooner. Then, much larger contaminated volumes will have to be dealt with. At some point re-containment will become impossible and use of the affected area will have to be "sacrificed".

Relocation of the wastes to an arid area may enable the emplaced volume to be maintained virtually intact for tens of thousands of years, limited only by future climactic changes. For example, the EIS for the Niagara Falls Storage Site (Lewiston, N.Y.) indicates it would take 35,000 years for the wastes to reach the water table if they were relocated to the Hanford, Washington site. Placement of the wastes at a location in the arid Southwest (the Nevada Test Site or Clive, Utah for example) and at sufficient depth may virtually eliminate the problems of water-borne dispersal (evaporation of precipitation in these warm areas preventing moisture from reaching the wastes) and radon emanation. Wind dispersal in an arid location can be avoided by careful waste placement in areas where the prevailing winds deposit soil instead of removing it.

SEAWAY PROPERTY (NIAGARA LANDFILL)/BFI COGENERATOR PROPOSAL:

Tonawanda has signed a contract with BFI Gas Systems to construct and operate an electric power station fueled by methane (biogas) from the landfill. Since radon will be drawn off with the biogas fuel and released from the boiler stack, this facility may pose a significant local health risk. This radon risk will require a Part 380 permit from DEC, perhaps a SEQR review; it is not known if a negative declaration has been issued by Tonawanda, DEC usually defers lead agency status to local government (Paul Merges, 5-18-94).

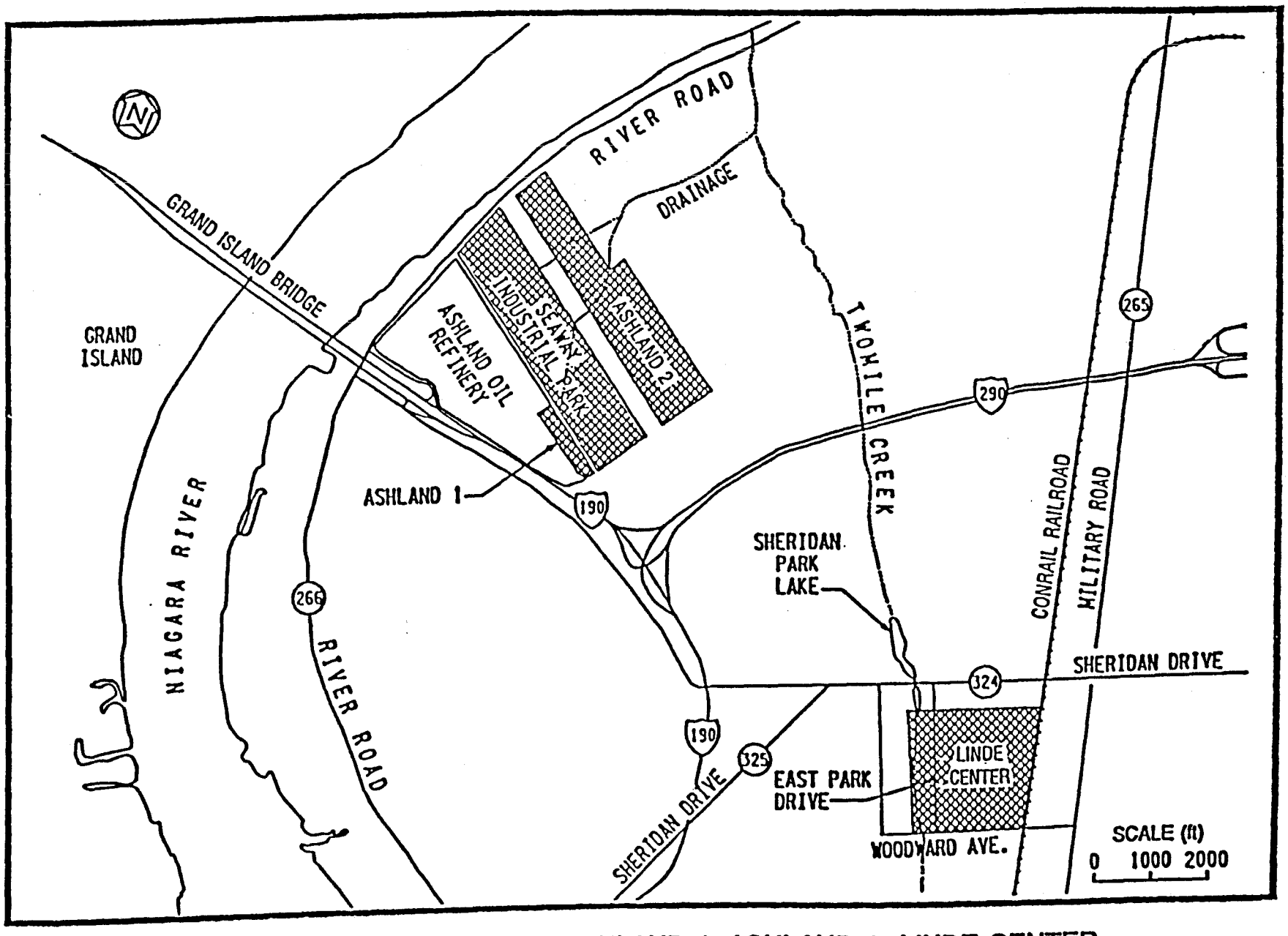


FIGURE 2-1 LOCATIONS OF ASHLAND 1, ASHLAND 2, LINDE CENTER, AND SEAWAY INDUSTRIAL PARK

Latest Development ! ! !

The "suspension" of the environmental review process announced by DOE (Admiral Guimond) on 4-20-94 now appears to really have been a termination at the Tonawanda site of the environmental requirements of the National Environmental Policy Act (NEPA). NEPA requires a full Environmental Impact Statement (EIS) for any project having potentially significant impacts on the environment. Six years ago, DOE agreed that "Because of the significance of issues raised during the scoping meeting, DOE has determined that an EIS is the appropriate level of NEPA review necessary to adequately inform decision-makers and the public of reasonable alternatives for minimizing any adverse impacts of the proposed action at the Tonawanda site."

We consider the inclusion of NEPA values in the environmental review process to be essential to protection of the public's interest in the selection of an effective, long-term management plan for Tonawanda's radioactive wastes.

On 10-18-94, DOE distributed a description of a proposed new process which makes no mention of NEPA values or resumption of the EIS process.

DOE's proposed new process does not address the significant deficiencies (see article OVERVIEW OF FUSRAP TONAWANDA SITE, page 3) identified in the comments of concerned citizens made over 9 months ago on the now "suspended" EIS documents. The sole information-gathering goal proposed is a year-long treatment study of the Tonawanda site's contaminated soils to determine if there are technically feasible, large-scale methods which might significantly reduce (by at least 80%) the volume of contaminated soils and be cost-effective in combination with other identified waste management alternatives.

While volume reduction is a desirable goal, the treatability issue has already been analyzed by SAIC (DOE's contractor for this study) in preparation of the Feasibility Study (11-93). This analysis eliminated further consideration of all volume reduction methods (in the development of EIS alternatives), both physical and chemical, as being inapplicable and/or not cost-effective for the soil conditions and containment concentrations at the Tonawanda , N.Y. site (see pages 3-20, 3-29 and 30, 3-42,and 3-46 through 48 of the Feasibility Study).

During the discussion at the 9-19-94 treatability meeting, the question was repeatedly raised as to whether or not any volume reduction technology had been successfully demonstrated on clay soils similar to those of the Tonawanda site and at the scale of the Tonawanda site's contaminated volume. The answer was no. In view of these facts, and given DOE's concern that the remedy selected be 'cost-effective', we question the expenditure of hundreds of thousands of dollars on additional treatment studies. We are seeking more information concerning the thoroughness of SAIC's treatability analysis, which was only briefly outlined in the Feasibility Study, in order to judge if additional study is merited.

For the reasons outlined above, we **do not** endorse the new process described in the draft Proposed Work Plan, 10-18-94 and believe that the legitimate EIS review process should be promptly reinstated. DOE needs to address the issues raised in the public comments.

Who is Dealing With Whom?

(see article, page 9)

It's become apparent that there is much confusion when the DOE trys to deal with the Tonawanda radioactive waste site. In the beginning, they wanted to deal with CANiT. Now, they claim to want to open the process to include other 'stakeholders'. If we look at the records one can see where the confusion sets in. In DOE's publication (December 1992 Draft-Work Plan-Implementation Plan for the Tonawanda Site) we find the following:

- "It is DOE policy to *involve the public* in the decision-making process throughout the environmental review and *to provide the public with information* about DOE activities." (page iii)

- "The major community relations issue at the site will be finding a cost-effective, remedial solution that is acceptable to the governmental entities involved, to private citizens, and to citizen interest groups. An effective community relations program for the site must involve representatives of all these groups. DOE conducts community relations activities to ensure that local citizens have input to decisions regarding DOE actions and are kept informed about the progress of those actions." (page 1)

- With respect to CANiT: "Because this organization includes elected representatives of all the affected communities it should be the primary point of community contact for the DOE." (page 13)

To Continue: "Identify *concerned individuals* and *citizen groups* and establish communications with them to obtain their participation in the decision-making process." (page 14)

As Ron Kirk stated in the November 7, 1994 Buffalo News article that, **by law**, the department (DOE) has to contact the public directly as well. This was in reference to CANiT's contention that the department should deal with the elected officials in CANiT.

We feel that it would would be in everyone's best interests for CANiT to work more closely with *local residents* and *citizen groups*. At the last DOE sponsored meeting (October 18, 1994 - Holmes School), there was quite an outcry as to whether or not CANiT does in fact have open meetings as they claim they do. Several people mentioned that they were **not** allowed entrance to CANiT's meetings. One of the complainants was a reporter for the Buffalo News. We recommend that all CANiT meetings in the future be publicized and open to all interested members of the public.

Note: Underlining, *italics* and **boldface** are by F.A.C.T.S.

Recommended reading

This material is available at DOE's Public Information Center and copies may be made there.

- COMMENTS ON THE ENVIRONMENTAL IMPACT STATEMENT DOCUMENTS FOR THE TONAWANDA SITE, Prepared for Erie County Department of Environment and Planning, by Martin N. Haas, 11-11-93 and 11-29-93

- FEASIBILITY STUDY FOR THE TONAWANDA SITE , Prepared by Science Applications International Corporation (SAIC), November, 1983;

- BASE RISK ASSESSMENT FOR THE TONAWANDA SITE, Prepared by Science Applications International Corporation (SAIC), August, 1993.

- COMMENTS ON RI/FS-EIS FOR THE TONAWANDA, NEW YORK FUSRAP SITE by James M. Rauch , February 6, 1994.

THE FOLLOWING REFERENCES ARE PRESENTED FOR THOSE WHO DESIRE FURTHER INFORMATION

THE FEDERAL CONNECTION: A HISTORY OF U. S. MILITARY INVOLVEMENT IN THE TOXIC CONTAMINATION OF LOVE CANAL AND THE NIAGARA FRONTIER REGION , An Interim Report to New York State Assembly Speaker, Stanley Fink , New York State Assembly Task Force on Toxic Substances, January 29,1981

NUCLEAR WASTE: THE PROBLEM THAT WON'T GO AWAY
By Nicholas Lenssen , Worldwatch Paper 106 , December 1991

NUCLEAR WASTE: THE BIGGEST CLEAN-UP IN HISTORY
By Gary E. McCuen , Ideas in Conflict Series , Gary E. McCuen Publications, Inc. , 502 Second Street , Hudson,
Wisconsin 54016

NUCLEAR WASTE: THE 10,000 -YEAR CHALLENGE
By Edward F. Dolan and Margaret M. Scariano
Franklin Watts, New York/London/Toronto/Sydney, 1990

'LOW-LEVEL' RADIOACTIVE WASTE: THE SITING PROCESS IN NEW YORK STATE BACKGROUND, ANALYSIS & RECOMMENDATIONS. , Compiled & published by: DON'T WASTE NEW YORK , Norwich, NY; CONCERNED CITIZENS of STEUBEN COUNTY, Hornell, N.Y., COALITION on WEST VALLEY NUCLEAR WASTES , East Concord, N.Y. Third Edition, August 1990

NUCLEAR WASTE: SOCIOECONOMIC DIMENSIONS OF LONG -TERM STORAGE edited by Steven H. Murdock, F. Larry Leistritz, Rita R. Hamm; Westview Special Studies in Science, Technology, and Public Policy/Society, 1983

MANHATTAN PROJECT: THE UNTOLD STORY OF THE MAKING OF THE ATOMIC BOMB By Stephane Groueff , 1967

RADIATION AND HUMAN HEALTH By John W. Gofman, M.D., Ph.D. ,Sierra Club Books , San Francisco, 1981

RADIATION-INDUCED CANCER FROM LOW-DOSE EXPOSURE: An Independent Analysis , By John W. Gofman, M.D., Ph.D. , First Edition , Committee for Nuclear Responsibility, Inc. , C.N.R. Book Division , P.O. Box 11207 , San Francisco, California 94101 , Edited by Egan O'Connor, 1990

HEALTH EFFECTS of RADIATION - HEALTH STUDIES by Raymond C. Vaughan, COALITION ON WEST VALLEY NUCLEAR SITES , Conference Workshop , Erie Community College, North, November 3, 1990

DISHONEST METHODS & INDEFENSIBLE RESULTS AS SEEN IN THE RECENT WEST VALLEY HEALTH STUDY BY N.Y. STATE DEPARTMENT OF HEALTH by Raymond C. Vaughan, COALITION ON WEST VALLEY NUCLEAR SITES, CAC Meeting, Johnson City, N.Y. , July 14, 1994

DEAD RECKONING - A Critical Review of the Department of Energy's Epidemiologic Research: by H. Jack Geiger, M.D., M. Sci., Hyg.; David Rush, M.D. with David Michaels, Ph.D., M.P.H. and Dean B. Baker, M.D., M.P.H ; John Cobb, M.D.; Ellen Fischer, Ph.D.; Adam Goldstein, M.D.; Henry S. Kahn, M.D.; Janice L. Kirsch, M.D.; Philip J. Landrigan, M.D., D.I.H., M.Sc.; Evelyn Moss, Sc.D.; Diane E. McLean, Ph.D., M.P.H.: A report by The Physicians Task Force on the Health Risks of Nuclear Weapons Production , The Physicians Task Force on the Health Risks of Nuclear Weapons Production , PHYSICIANS FOR SOCIAL RESPONSIBILITY, WASHINGTON, DC, 1992

THE CAUSES OF CANCER Quantitative Estimates of Avoidable Risks of Cancer in the United States Today, by Richard Doll & Richard Peto , Oxford , New York , Oxford University Press, 1981