

**OAK RIDGE RESERVATION
HEALTH EFFECTS SUBCOMMITTEE**

**CENTERS FOR DISEASE CONTROL AND PREVENTION
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY**

Detailed Proceedings of the August 27, 2002, meeting of the Subcommittee

Call to Order/ Opening Remarks

The Oak Ridge Reservation Health Effects Subcommittee (ORRHES) convened on August 27, 2002, at the YWCA at 1660 Oak Ridge Turnpike, Oak Ridge, Tennessee. Chairperson Kowetha Davidson called the meeting to order at 12:15 PM, welcoming all attendees.

Introductions

Kowetha Davidson asked the attendees to introduce themselves. The attendees present at this time were:

Kowetha Davidson, Chairperson, ORRHES
La Freta Dalton, DFO, ATSDR
Brenda Vowell, Tennessee Department of Health
Chudi Nwangwa, Tennessee Department of Environment and Conservation
Elmer Akin, Environmental Protection Agency (EPA)
David Johnson, ORRHES member
Bob Craig, ORRHES member
Susan Kaplan, ORRHES member
James Lewis, ORRHES member
Don Creasia, ORRHES member
LC Manley, ORRHES member
Karen Galloway, ORRHES member
Jeff Hill, ORRHES member
Barbara Sonnenburg, ORRHES member
Pete Malmquist, ORRHES member
Donna Mosby, ORRHES member
Charles Washington, ORRHES member
Peggy Mustain Adkins, ORRHES member
Tony Malinauskas, ORRHES member
George Gartseff, ORRHES member
Don Box, ORRHES member
Herman Cember, ORRHES member
Jerry Pereira, ATSDR
Burt Cooper, ATSDR
Jack Hanley, ATSDR
Bill Murray, ATSDR
Marilyn Palmer, ATSDR
John Steward, Paper, Allied-Industrial, Chemical, and Energy (PACE) Workers Union
John Merkle, Karns resident

Al Brooks, Oak Ridge resident
Bob Peelle, Oak Ridge resident
Tim Joseph, Oak Ridge Office, Department of Energy
The recorders are Ken Ladrach and Amylane Duncan, Auxier & Associates, Inc.

Agenda Review, Correspondence, and Announcements

Agenda Review

Kowetha Davidson reviewed the agenda dated August 27, 2002, noting the following:

- Work Group presentation sessions
- Guidelines and Procedures Work Group report on facilitating meetings
- Communications and Outreach Work Group demonstration of ORRHES website
- Health Education Needs Assessment Work Group report on a community clinic
- Public Health Assessment Work Group presentation on combining I-131 doses
- Public comment periods
- Video presentation on chelation therapy in place of presentation by Paul Charp
- Work Group recommendation sessions
- Community Concerns Database presentation
- James Lewis presentation

Correspondence

Kowetha Davidson reported a letter received from Dr. Falk regarding the Subcommittee's recommendations from the March 26, 2002 Subcommittee meeting. Letters dated June 5, 2002, and June 14, 2002, were received from Owen Hoffman; response dated July 18, 2002, was provided by Jerry Pereira.

Announcements

Kowetha Davidson reported that there were no announcements.

Approval of March 26, 2002 ORRHES Meeting Minutes

Kowetha Davidson referred to the March 26, 2002, meeting minutes distributed previously to the Subcommittee members. Comments on the draft minutes have been incorporated and revised minutes distributed to Subcommittee members.

A motion was received and seconded to approve the March 26, 2002 meeting minutes. A vote was taken by voice with none opposed. The minutes were declared approved.

Status of Action items – list provided

The table listing the status of action items has been distributed to the Subcommittee members. The table of action items was reviewed.

James Lewis asked whether ATSDR will make a presentation about the budget and the five-year plan. Kowetha Davidson responded that it would be discussed during the “Unfinished Business” section of the agenda.

Work Group Sessions

AGENDA WORK GROUP PRESENTATION

Barbara Sonnenburg reported that the Agenda Work Group has no recommendations, the Work Group has worked with Subcommittee members to produce the agenda for the meeting. There were no comments on the agenda.

GUIDELINES AND PROCEDURES WORK GROUP

Karen Galloway reported that the Guidelines & Procedures Work Group decided not to pursue revision of a recommendation to change bylaws regarding membership, which was brought before the Subcommittee at the March 26, 2002 meeting, and referred back to the Work Group.

The Guidelines and Procedures Work Group has assembled information containing suggestions for chairs to conduct meetings in a more effective manner. The first recommendation of the Work Group recommends adoption of this information to a Work Group chairs in facilitation of more effective meetings.

The second recommendation of the Work Group addresses the job description for an administrative assistant in the field office. The Work Group recommends also considering ‘facilitation skills’ of the administrative assistant candidates. Attached to this recommendation are three documents that the Work Group recommends the Subcommittee send to ATSDR for their consideration.

Jeff Hill suggested that the use of a “concerns sheet”, outlined in recommendation number one may inhibit expression of concerns, and requested that the use of the “concerns sheet” not be made too rigid. Karen Galloway responded that the concerns sheet would not be mandatory, but is intended to ensure that concerns will be addressed, followed up and tracked. Jeff Hill expressed concern that some dialogue will be lost

and/or not captured. Karen Galloway responded that hopefully the “concerns sheet” will make the concerned person comfortable that their concern will be addressed.

James Lewis asked the questions “What constitutes a concern? How do we formally capture those?” The ‘concerns sheet’ is optional, however, enough specific information about the concern is needed so that someone can provide a meaningful response to the concern which makes the ‘concern form’ an important tool for responding to concerns raised.

Barbara Sonnenburg suggested adding a sentence to the form stating that a note-taker can fill out the form for the concerned person. Kowetha Davidson responded that currently ATSDR captures concerns as recorded within minutes of the meetings.

Donna Mosby commented that much thought went into the ‘concern sheet’, and it was designed to be sensitive to people raising concerns, and it is not a requirement that everyone fill out form.

Susan Kaplan commented that the person taking Work Group minutes is usually not present at the meetings, and takes notes by speakerphone. Therefore the person designated to fill out the form should be a member of the Work Group. David Johnson commented that much time and energy went in to developing the ‘concerns sheet’, and it has not been put into use yet. It is important to begin using the form to track concerns in order to determine the timeliness of response to concerns.

James Lewis commented that ATSDR is developing a concerns database and is currently capturing concerns from meeting minutes, and asked for a presentation from ATSDR on the concerns database. Kowetha Davidson mentioned that the presentation for the concerns database is on the agenda for today.

COMMUNICATIONS AND OUTREACH WORK GROUP

James Lewis reported that the Communications and outreach Work Group has not had a recent meeting. Since the last Work Group meeting the ORRHES web site is up.

La Freta Dalton began presentation of the ORRHES website and noted that the website was developed by Eastern Research Group (ERG) and placed on the ATSDR server in June 2002 (www.atsdr.cdc.gov).

La Freta Dalton demonstrated navigation through the website on screen for the Subcommittee. Pages accessed included:

- Home Page – Welcome letter from Kowetha Davidson
- Linked pages:
 - General Information about the Subcommittee
 - Mission Statement, Vision, Goals and Objectives
 - History and Activities
 - Bylaws

- Compendium of Public Health Activities
- Information about other agencies' activities
- State of Tennessee activities
- ChemRisk Dose Reconstruction
- Related links
- Other Federal Government Agencies
- Pocket Guide to Chemical Hazards
- Local media, local government organizations
- Membership of the Subcommittee with biographies
- List of Meetings
- Frequently Asked Questions, Acronyms
- Link to e-mail ATSDR staff (Bill Murray and La Freta Dalton)
- Organization charts for ATSDR/roster of ATSDR staff

Herman Cember asked the intended audience of the website. La Freta Dalton responded that the intended audience is the general public, public officials, professionals. ATSDR has attempted to make site user friendly for a wide variety of audiences. Elmer Akin asked how often the site will be updated. La Freta Dalton responded that the update is once each month.

Jack Hanley pointed out that activities of the Subcommittee, including workshops handouts, meeting minutes, calendars, and recommendations of the Subcommittee, are included on the website.

James Lewis commented that the website could be helpful for people to find/ keep up with issues and asked if it would be possible to list "identified issues" and have cross-links to particular sets of meeting minutes (or other documents) that address each issue. Currently it can be difficult to find issues within the listed agenda. La Freta Dalton responded that that option is still being examined. Susan Kaplan suggested that a link entitled "issues addressed" could be added to the links available for each meeting.

Jeff Hill requested that "The Roane County News" be added to the list of links on the web site, and asked that future e-mail messages sent out to Subcommittee members concerning meetings include a hot link to the ORRHES web site to encourage use of the web site.

Pete Malmquist asked whether the status of recommendations and action items is accessible on the web site. La Freta Dalton acknowledged that the recommendations and action items are on the web site because they are included in Subcommittee meeting minutes on the web site but that the status chart has not yet been added. James Lewis commented that the action items from Work Group meetings are not on the web site. La Freta Dalton clarified that Work Group action items are on the site in the context of the Work Groups minutes there. Action items are on the web site to the extent that they were captured in meeting minutes.

Jack Hanley highlighted the Compendium of Public Health Activities on the site containing information on all the public health activities of ATSDR, CDC, DOE, and other public health agencies giving comprehensive information on health study activities in the Oak Ridge area.

Elmer Akin commented that the Subcommittee should use the site as a major communication tool and asked what time during each month the site would be updated and whether a notation stating the most recent date of update would be visible to the viewer. La Freta Dalton responded that the site includes display of the most recent date of update.

Bill Murray suggested that until Subcommittee members become familiar with the site, ERG could send an e-mail to Subcommittee members notifying them when the site has been updated.

Susan Kaplan asked if the community input/concerns form is on the site to allow people to submit concerns to the site. La Freta Dalton reported that the form is not part of the site but that the possibility of including the input form on the site will be explored.

James Lewis, commenting on the option of including the community concerns form on the site, asked how the concerns raised coming through several different mechanisms will be managed/controlled so that issues and concerns are not lost. La Freta Dalton responded that concerns brought forth through any of the available mechanisms will all be channeled into the ATSDR Community Concerns Database.

Peggy Adkins asked whether the site could have a link to information about the potential health effects of toxins/substances that members of the public may be concerned about. La Freta Dalton reported that a link to toxicity profiles is available on the ATSDR homepage, but that a direct link is planned for the ORRHES web site as well.

Kowetha Davidson asked whether the ORRHES site has a link to the Association of Occupational and Environmental Clinics (AOEC). La Freta Dalton believes the link is there.

Charles Washington pointed out that one way to address concerns would be to create on the web site a chart of concerns raised, the name of the concerned individual, and the subsequent response to the concern following research into the concern. This method is used by the Oak Ridge Site Specific Advisory Board (SSAB), giving everyone access to each particular concern. Charles Washington added that the ATSDR and the Subcommittee are making an assumption that the best method for communicating is through the Internet. There may be a need to consider alternatives for communicating information.

Donna Mosby asked whether the format of documents viewed on the site is consistent and whether the site includes information about sites other than the Oak Ridge Reservation. La Freta Dalton clarified that the documents are made available on the site

as the exact same electronic files submitted by those who create them, and that the ORRHES site addresses only the Oak Ridge Reservation.

Jeff Hill asked if links to web sites for sites other than Oak Ridge could be included, in order to see the progress other sites have made in their Public Health Assessment process. La Freta Dalton reported that the only similar site pertains to the Hanford, Washington site and that the information on that Subcommittee's site is 2 to 3 years old and has not been updated. A link for the Hanford Subcommittee's site is in the index of the ATSDR homepage.

La Freta Dalton encouraged everyone to visit and view the site and provide comments/suggestions for improvements.

HEALTH EDUCATION NEEDS ASSESSMENT WORK GROUP

Donna Mosby reported that:

- George Washington University has completed the solicitations for focus groups.
- James Lewis will make a presentation on the issue of a clinic in Oak Ridge.

Discussion of clinical services in Oak Ridge:

James Lewis, Pete Malmquist, and Brenda Vowell made a presentation to the Subcommittee regarding clinical services for the local community. The presentation followed a series of handout materials distributed to each member of the Subcommittee and a portion of the videotape of the January 18, 2001 ORRHES meeting.

Handout A- Summary of Questions/Concerns Regarding Clinical Programs

Overview of Handout A summarizing:

- Questions raised during December 3-4, 2001 presentation by Dr. Robert Jackson of the Health Resources and Services Administration (HRSA) regarding establishing a HRSA clinic locally.
- Questions raised during March 13, 2002 meeting of the Health Needs Assessment Work Group regarding establishing a clinic to diagnose, treat, and research illness.
- Questions raised during DOE Former Worker Program presentation March 26, 2002 regarding how DOE provided medical surveillance/care for workers.

Handout B- Glossary of Medical Terms

James Lewis highlighted the definitions of Health Surveillance and Medical Monitoring.

ATSDR Public Health Assessment Flow Diagram

James Lewis highlighted the steps of the ATSDR Public Health Assessment (PHA):

- 1) Evaluate Site Information
- 2) Collect Community Health Concerns
- 3) Determine Contaminants of Concern
- 4) Identify and Evaluate Exposure Pathways
- 5) Determine Public Health Implications
- 6) Determine Conclusion and Recommendation/Follow-up Action

Community involvement is tied in with several of the steps shown on the diagram. These six steps complete the PHA process. If the conclusion is “no action required” the PHA is submitted for review and comment. If the conclusion is “action is required” there could be pilot studies, epidemiological studies or surveillance/registry. The primary focus is on the community.

Charles Washington asked whether the community was divided into workers and non-workers. James Lewis responded that the PHA process focuses on impacts outside the DOE facility boundary.

Videotape of ORRHES meeting January 18, 2001

A portion of the videotape of the January 18, 2001 ORRHES meeting was viewed. This portion of the videotape captured public comments/concerns from members of the community expressing the need for a clinic in the Oak Ridge area to serve exposed/ill persons, and responses from officials of HRSA (Dr. Paul Seligman) and ATSDR (Dr. Henry Falk). James Lewis pointed out the emphasis in the video tape of a desire for a clinic among members of the community.

Handout C- Presentations and Documents Reviewed

James Lewis gave an overview of presenters brought before the Subcommittee to address issues about community clinics and medical surveillance programs:

- January 18, 2001 – Dr. Paul Seligman, Dr. Henry Falk, Katherine Kirkland (AOEC)
- December 4, 2001 – Dr. Robert Jackson (HRSA)
- March 12, 2002 – Presentation on ATSDR/PACE program comparison
- March 26, 2002 – Kathleen Taimi (DOE), Donna Cragle (ORISE), Lyndon Rose (Queens College)

James Lewis highlighted the response from Donna Shalala (Secretary of Health & Human Services) that CDC, ATSDR and NIH do not provide direct primary medical services to communities, and they are working with DOE to plan appropriate public health follow-up activities to address the concerns of communities regarding the nuclear weapons complex. In addition, Dr. Robert Jackson's historical review of HRSA programs found no examples of HRSA grant dollars supporting the development of environmental health clinics.

James Lewis highlighted the document reviewed by the Subcommittee entitled "Proposed Criteria for Selection of Appropriate Medical Resources to Perform Surveillance of Employees Engaged in Hazardous Waste Operations and a list of qualified doctors in Tennessee (available on ORRHES website).

Handouts E1 – E3

Pete Malmquist presented criteria for establishing a HRSA clinic. HRSA would not establish an environmental clinic. There are three types of HRSA clinics: Community Health Center, Federally Qualified Health Center, and Rural Health Clinic. The type of HRSA clinic that the Work Group evaluated for the Oak Ridge area is a Rural Health Clinic (Handout E3). Rural Health Clinics are located in the most rural areas, and are established under the authority of the Rural Health Clinic Services Act (Public Law 95-210).

The HRSA website was consulted for guidelines to determine eligibility for a clinic in the Oak Ridge area. Eligibility criteria to calculate the Index of Medical Underservice (IMU) include:

- County population
- Percent below poverty level
- Percent of population over age 65
- Ratio of primary care physicians to population

Calculation of the IMU for this area includes 8 counties: Anderson, Blount, Loudon, Knox, Meigs, Rhea, Morgan, and Roane. Data for each county are presented in Handout E1.

Brenda Vowell explained the calculation details for Anderson County in Handout E3 resulting in an IMU value of 83.2. The eligibility for this type of clinic is an IMU value not exceeding 62. The only county out of the eight listed which holds a value of 62 or less is Morgan, which already has a clinical site.

Pete Malmquist summarized that under the HRSA guidelines this area does not qualify for a Rural Health Clinic.

Peggy Adkins commented that the situation of exposure in this area is exceptional and has not been dealt with before, old forms of clinics would not work in this situation.

Environmental factors have been tested, however people have not been tested. Concern was expressed that a clinic should be used for testing people, not just treatment of people who have health problems.

Charles Washington agreed with Peggy Adkins on testing people. In the past workers were exposed to mixtures of many naturally occurring elements and other chemicals which have effects on human systems. Data on these exposures should be considered, but may not be applicable to today's conditions. Charles Washington stated that in Oak Ridge there has never been documentation of a death resulting from exposure to toxins from any of the facilities in the Oak Ridge area, and it would not be in the economical interest of a physician to document cause of death as a result of a specific toxin.

Jeff Hill commented that he is a beryllium worker, radiation worker and asbestos worker, and he is not eligible for any of the medical screening programs that DOE offers.

James Lewis pointed out to the Subcommittee that comments about testing people and establishing clinics are all actions that may follow after the PHA process is completed.

Handout F- Clinical Program Comparison

James Lewis presented an overview of a comparison of programs and emphasized that each agency is limited by the Congressional mandates that specifies what they can do within their programs. The clinical program comparison highlights target populations, types of assessments, and criteria for screening /medical evaluation, and follow-up actions/benefits for each agency. James Lewis emphasized that the Congressional mandate for ATSDR does not provide for diagnosis or treatment and individuals are directed to their personal physicians or AOEC clinics for follow-up diagnosis and treatment.

Handout G- ATSDR/PACE Program Comparison

James Lewis highlighted a comparison of the ATSDR versus PACE union programs and drew attention to the distinctions between the programs; the ATSDR program addressing exposure outside the DOE facilities and the PACE union program addressing workers at the DOE facilities. Each program is charged with specific tasks, ATSDR's tasks are controlled by congressional mandates. The program comparison highlights the types of assessments and the target populations of each program. The PACE worker program involves a Needs Assessment to determine if a medical surveillance program is needed while the ATSDR program involves a PHA to determine the need for follow-up public health action. James Lewis highlighted the overall similarity of the two programs regarding their exposure assessment processes, sources of data used (both programs are using the ChemRisk Oak Ridge dose reconstruction information), and health outcome identification processes.

James Lewis summarized the conclusion aspects of the Public Health Assessment program:

- Determine the degree of public health hazard,
- Identify illnesses from exposure to contaminants,
- Identify data gaps,
- Determine what public health actions or studies should be undertaken.

Emphasis was placed on the fact that the congressional mandate for ATSDR does not provide for diagnosis or treatment and ATSDR must complete its PHA process before developing public health conclusions or making any recommendations (refer back to the flow diagram of the ATSDR PHA process).

James Lewis highlighted a draft fact sheet (dated 8/20/02) developed for distribution to the public presenting information about environmental & occupational medical resources and medical resources for ORR workers.

Donna Mosby read for the Subcommittee the proposed recommendation that the Health Education Needs Assessment Work Group brings to the Subcommittee for vote today.

Discussion:

Janet Michel commented regarding the proposed Health Education Needs Assessment Work Group recommendation, disagreeing very strongly with the recommendation statement that clinical evaluation and medical monitoring are premature at this point in the ATSDR process in light of 11 years of residents coming forward with health concerns. Why should there not be any medical screening begun by now? Janet Michel also asked for an explanation of the current status of progress in the ATSDR PHA process.

Kowetha Davidson responded that the ATSDR is in the midst of the PHA process and that in fact the Subcommittee is an integral part of conducting the PHA process, which will be followed by ATSDR recommendations. James Lewis added, with visual reference to the flow diagram of the ATSDR PHA process, that the Subcommittee and the ATSDR are not in a position to make any recommendations until completion of the steps of the process outlined in the flow diagram.

Janet Michel noted for the Subcommittee that among six of her friends raised locally, 3 of them are on Synthroid medication for thyroid anomalies/cancers now, and asked why disease registry information is not being gathered. For example, Dr. Elaine Bunick, a local endocrinologist, has diagnosed over 1200 thyroid problems in the area and has reported this to the State of Tennessee and contacted MD Anderson Hospital for assistance.

Janice Stokes reported that pharmacists have said to her that synthroid medication is distributed from their pharmacies by the truckload each month.

Barbara Sonnenburg asked for an estimate of when the ATSDR PHA process will be completed for I-131 and when will it be completed for other substances. James Lewis recalled that the original schedule called for completion after six months. Burt Cooper added that the schedule is approximately one year behind and a detailed plan with schedule will be presented to the Subcommittee soon. Completion of PHAs for selected contaminants are to be completed within two years.

Jeff Hill commented regarding the fact sheet (dated 8/20/02 Environmental & Occupational Medical Resources and Medical Resources for ORR Workers) that a statement needs to be added to the fact sheet stating that workers need to report health problems to their employers.

Regarding the PHA Process Flow Diagram, Elmer Akin stated that it is important to distinguish between determining contaminants of concern historically versus determining contaminants in the environment currently, and disease resulting from historical exposures versus current exposures. James Lewis pointed out that the Subcommittee and ATSDR have determined to address past exposures (prior to 1990 – dose reconstruction studies) separately from current exposures (since 1990).

Public Comment

Mike Knapp commented on the history of events leading to the development of the workers compensation program. In 1992 reviews of historical documents revealed that in the 1940's doctors and lawyers took steps to limit liability from worker exposures in order to continue bomb production. The Nuclear Workers Compensation Program was enacted in the late 1990's to compensate workers for the actions in the 1940's. In order for a worker to be compensated under the current workers compensation program medical records must indicate exposure to certain toxins, and in the past DOE lost, manipulated, and destroyed health-related documents. Today the workers compensation program is limited to specific disease types (berylliosis, asbestosis, silicosis, and radiogenic cancers) and does not address modern disease types/new illnesses from exposure to unknown toxins. Residents living in this area must also bear the burden of proof of exposure, which requires documentation to backup illnesses. The reason a clinic is desired is because workers have diseases which have not been diagnosed, studied and treated, and residents face the same problem. ATSDR is looking at the need for a clinic or public health action while people want to have a clinic first to study and record disease patterns, actions that follow the public health assessment in the ATSDR process. Mike Knapp commended the Subcommittee for recommending to ATSDR that exposures to I-131 from Oak Ridge be added to exposures to I-131 from the Nevada Test Site. Mike Knapp also commented that the concept of a clinic is one that can be an integral part of the PHA process on the front end. The burden of proof of exposure to workers has already been met. The clinic would benefit residents and also workers who are not compensable under the workers compensation program.

James Lewis responded that Dr. Bob Eklund (former member of the Subcommittee) has stated in the past that a physical facility (clinic) does not need to be located here in order to conduct clinical intervention. Hopefully the public health assessment process, if it finds public health impacts associated with exposure, will provide the community at large with information to assist in getting appropriate medical care.

John Steward agreed with Mike Knapp's comments, and further commented that DOE is not supporting the process, citing a particular case of a worker (30 years at K-25) who has been denied under the workers compensation program due to lack of documentation of employment. There are similar examples. John Steward related his own experience with his personal doctor who refused to accept/examine his CAT scan (performed under the PACE union worker program) because he did not want to become involved with the worker exposure controversies. Workers continue to have to pay for their own medical testing and treatment. John Steward asked the Subcommittee when a clinic for workers would be recommended.

Break

Work Group Sessions (continued)

PUBLIC HEALTH ASSESSMENT WORK GROUP

Presentation and discussion:

Kowetha made a presentation to the Subcommittee entitled "Should ATSDR Combine Iodine-131 Doses from the Oak Ridge Releases with Those from the Nevada Test Site".

Kowetha Davidson began the presentation with an overview of the thyroid gland, its location and function in the human body, and the mechanism of control of thyroid hormone levels. The presentation then addressed benign thyroid tumors (95% of all thyroid tumors) versus cancerous thyroid tumors (5% of all thyroid tumors), and detailed the prevalence of types of cancerous thyroid tumors. The majority of thyroid cancers are the papillary type. Follicular cell cancers, C-cell or medullary cancers, and anaplastic thyroid cancers are far less prevalent. The risk factors presented for thyroid cancer incidence include:

- Radiation exposure (either external exposure to the head/neck or from intake of radioactive iodine),
- Family history (presence of altered RET gene),

- Female gender (females are at higher risk),
- Age (risk increases with age),
- Race (risk is greater among blacks), and
- Iodine deficiency.

Kowetha Davidson reviewed the evidence for the link between thyroid cancer and exposure to I-131 based on studies performed after the Chernobyl nuclear accident. These studies indicate: a four year latency period for thyroid cancer in children, thyroid cancer incidence in children exposed *in utero*, peak incidence in children 8 to 9 years old, and the highest incidence in the Ukraine, Belarus, and Russia.

The 1997 National Cancer Institute (NCI) study (“Estimated Exposures and Thyroid Doses Received by the American People from Iodine-131 in Fallout Following Nevada Atmospheric Nuclear Bomb Tests”) and the 1999 National Academy of Sciences (NAS) review of that study were discussed during the presentation. The study developed dose estimation methods and thyroid dose estimates to individuals from NTS releases but did not estimate risks of thyroid cancer. The NAS review of the study reported that:

- The study was generally reasonable,
- National collective dose estimates are unlikely to greatly under/over-estimate actual doses,
- County-specific dose estimates are likely too uncertain to use to estimate individual doses,
- Direct measurements of fallout are too sparse to make precise county/state dose estimates for all of the U. S.,
- A minority of the population had significant exposure,
- The highest risk was among young children that drank milk from backyard cows/goats at the time,
- Cancer risk estimates for individuals are more uncertain than dose estimates due to the uncertainties in risk at low doses,
- Thyroid cancer risk estimates can only be made with a wide range.

Synopsizing information presented by Owen Hoffman to the Subcommittee June 11, 2001:

- The range of consequences of various levels of radiation dose to the thyroid,
- I-131 releases from “other” sources in Oak Ridge will likely not change dose estimates by more than a factor of 3,
- Dose estimates are adequate for general conclusions regarding dose in the community but not for probability of causation (PC) calculation,
- The range of dose estimates is slightly greater than a factor of 10,
- The impact of adding doses from NTS I-131 releases to doses from Oak Ridge I-131 releases varies for different locations in the Oak Ridge vicinity,
- The primary risk factors for thyroid cancer are age at exposure, I-131 levels in milk, dietary source of milk, milk consumption rate, and gender,

- The risk of thyroid cancer from releases is low except for individuals who consumed goat's milk.

Synopsizing information presented by Charles Miller to the Subcommittee in September 2001:

- It is possible to combine I-131 thyroid doses contributed from multiple sources,
- Is important to consider whether I-131 thyroid doses contributed from multiple sources should be combined,
- If doses are combined it is important to communicate the information so that people can make informed health decisions,
- Numerical dose estimates are less important than the risk factors: gender, age at exposure, and consumption of milk from a back yard cow/goat.

Kowetha Davidson summarized the results of a 2001 "Feasibility Study of the Health Consequences to the American Population of Nuclear Weapons Tests Conducted by the U. S. and Other Nations". In summary:

- CDC and NCI were the lead agencies
- The study involved document retrieval, dose estimation, review of epidemiological literature, risk assessment, and development of health communication strategies
- The study will be reviewed by the NAS, with formal recommendations to follow that review
- The study concludes that exposure of the U. S. population by location and time can be estimated
- Estimates for individuals are imprecise because of variations in exposure within counties
- The study concludes that cancer risks from fallout can be estimated for representative exposure scenarios but with large uncertainties
- Accurately determining risk for specific individuals is not possible.

Discussion followed the presentation.

Charles Washington commented that on slide 18 of the presentation the statement that "...I-131 releases from other sources in Oak Ridge will likely not change estimates by more than a factor of factor of three" is statistically significant and asked for an explanation of the statement that "does estimates range slightly greater than a factor of ten". Kowetha Davidson responded that the factor of three from other Oak Ridge sources would be less than the factor of 10 range in the dose estimates. Charles Washington also asked for explanation of the statement in slide 17 "Mode of action for thyroid cancer caused by I-131 is non-threshold linear". Kowetha Davidson responded that the non-threshold linear model means that there is no exposure to I-131 that would not be associated with some risk of cancer. The alternative model is that there is a threshold dose below which there would be no risk. Herman Cember commented on the

explanation of non-threshold that it is more correct to say that the model postulates a zero threshold rather than no threshold.

Susan Kaplan commented that her understanding is that the I-131 releases from ORNL from the RaLa program range from 3.3 to 6.7 times, assuming 90-95% retention efficiency, where 3.3 refers to 95 percent efficiency and 6.7 refers to 90 percent efficiency. Kowetha Davidson commented that this factor of three statement was not in reference to the RaLa program releases. Susan Kaplan emphasized the importance of correctly clarifying words from Owen Hoffman's presentation. Kowetha Davidson replied that the factor of three statement was not specifically about RaLa releases.

Following the I-131 presentation Kowetha Davidson read the recommendations of the Public Health Assessment Work Group.

RECOMMENDATION ONE:

ORRHES recommends that CDC/ATSDR present the public health implications of I-131 thyroid doses (and risks, if feasible) due to releases from the Department of Energy's (DOE) Oak Ridge Reservation (ORR), the Nevada Test Site (NTS), and the combined doses (and risks, if feasible) from the ORR and NTS in its Public Health Assessment for I-131. ATSDR should present the doses (and risks, if feasible), their ranges of uncertainty, and an explanation of the level of uncertainty for public understanding.

Rationale:

Presenters Owen Hoffman and Charles Miller presented background information on the dose reconstruction for I-131, including the issue of combining doses of I-131 from Oak Ridge with doses of I-131 from the NTS. Neither presenter specifically recommended combining the doses. It is technically possible to combine the doses, but the issue is should the doses be combined? ATSDR is asked to present the total doses from the Oak Ridge and NTS and provide separate health implications from those exposures. ATSDR will determine the feasibility of estimating the risk for developing thyroid cancer or present their rationale if it is determined that risk estimation is not feasible.

RECOMMENDATION TWO:

ORRHES recommends that CDC/ATSDR establish an online calculator so that individuals may obtain estimates of their thyroid doses (and risks, if feasible) due to releases of I-131 from the Oak Ridge Department of Energy Reservation and from the Nevada Test Site along with an option for adding the doses (and risks, if feasible). CDC/ATSDR should provide information to the public on interpretation, uncertainty, and credibility of the results

from the calculator and any follow-up action the individual should take as a result of the estimate.

Rationale:

The public has an interest in individuals estimating their I-131 doses. Dose estimates with health implication information will aid in making healthcare decisions.

Public Comment

Bob Peelle stated that at the time the Oak Ridge Health Assessment Steering Panel (ORHASP) study was performed various experts believed that the contribution from other sources from X-10 would be approximately 20%, far less than a factor of three, but the ORHASP committee was aware of the controversy about the efficiency of filtration of I-131 from the RaLa program. Perhaps the releases from the RaLa program varied by a factor of three. Bob Peelle commented regarding the combining of doses from radioiodine from Oak Ridge and from the Nevada Test Site, it may be impossible to produce risk estimates from the doses. Bob Peelle's opinion is that if risk estimates cannot be produced, time should not be spent producing the dose estimates because people do not know how to interpret dose estimates, but risk estimates are meaningful. Bob Peelle's recommendation consisted of eliminating the addition of I-131 doses from Oak Ridge and the Nevada Test Site if the risks cannot be estimated.

Kowetha Davidson responded that a calculated risk estimate (e.g. 1/1,000,000) is less meaningful to a physician trying to recommend follow-up public health actions than defining age at exposure, gender, and whether milk was consumed from a backyard cow or goat.

Regarding Handout G (ATSDR/PACE Program Comparison), Janet Michel commented that the PACE union worker program was inadequate and therefore a poor comparison. Testing was minimal, information was lacking, health physics dosimetry is not accurate. A Portsmouth, Ohio, health physicist reported to a Senate Committee that he was instructed to falsify reports, and that dosimeters were intentionally left on top of sources to test responses. Janet Michel reported that while working at K-25 with cyanide compounds personal monitoring and testing were promised, yet never happened. The medical monitoring programs are far from perfect.

Janet Michel's health problems consist of an enlarged thyroid and auto-immune disease. The condition began when handling uranium samples for school and civic demonstrations. The ATSDR PHA process gives ATSDR something to do, and makes the public feel as though they have input, but asked the Subcommittee how many of their recommendations have been acted upon? While ATSDR is conducting their PHA, waiting a year or more for information to be complete, sick people are dying.

Kowetha Davidson noted that the Subcommittee is sensitive to comments from the public, and stated that the Subcommittee is limited to its mandate from Congress.

Barbara Sonnenburg asked how the Subcommittee can change people's minds in Congress. Janice Stokes responded that it is possible to change people's minds in Congress, by recommendations from panels such as this ATSDR Subcommittee. A clinic for Oak Ridge is not premature; however it would have been premature in 1940-1950 when little was known about exposure to harmful substances. Large doses from releases of iodine have been acknowledged as having occurred and as being harmful. Effects on the thyroid resulting from doses of iodine are evident in the community, as well as thyroid diseases, cancers and other maladies. The Subcommittee and community members can work together to change people's minds in Congress. There is a need to take a step beyond the workers compensation program for the benefit of people who have lived around the nuclear sites. As a minimum people should be given the opportunity to be diagnosed, treated and monitored. In regard to monitoring of emissions from incinerator stacks, there is not real-time monitoring at the Duratek incinerator or at the DOE incinerator in Oak Ridge, health physics monitoring data are unreliable. For example, Bud Aerosmith (Duratek) is quoted as stating that dirty filters work better than those that are clean, and their stack filters were changed every six months. People's lives are at stake on these issues.

Kowetha Davidson invited members of the public to attend and participate in the Subcommittee's Work Group meetings, in person or by telephone.

Janet Michel posed the questions "How soon would any of the federal agencies be able to do something such as helping people monitor their water wells?" and "Could the Subcommittee request from the Tennessee Department of Health (TDH) any statistics that they may have on disease registries?" Janet Michel reported that the TDH has encountered obstacles to their efforts at collecting such information (e.g. lack of cooperation from neurologists in the Oak Ridge area in the past). Kowetha Davidson reported that the Subcommittee will be having a visit from staff of the TDH to make a presentation on TDH disease registries.

La Freta Dalton commented that, before ATSDR can make any public health recommendations, it must first document exposure; that is accomplished through the PHA process. The purpose of the Subcommittee is to provide input to ATSDR on the PHA. Documenting exposure is the result of evaluation of available evidence. If necessary, additional data collection to fill data gaps can be requested. While ATSDR and the Subcommittee hear these concerns brought forth by members of the public, the Subcommittee and ATSDR are required to proceed through the PHA process and document exposure before making public health recommendations.

Janice Stokes replied that this process (PHA) does not work for the people of the community, and a new approach should be developed by the Subcommittee to do something different that will work for and benefit the people.

Janet Michel stated that exposure can be documented by examining the endpoint, the people affected.

Herman Cember offered the comment that dirty filters are more efficient filters due to the buildup of material on the filter and the filter must be changed once the buildup has reduced airflow rate to a certain level.

Pre-paid Box Meal (“working lunch”)

**Presentation and Discussion:
ATSDR Radiation Screening Process**

Paul Charp - ATSDR

The presentation by Paul Charp entitled “The ATSDR Radiation Screening Process” was cancelled because Paul Charp was unable to attend this ORRHES meeting.

**Presentation and Discussion:
Chelation Therapy**

Videotape presentation:

The viewing of a videotape entitled “Chelation Therapy: A Prologue to a Continuing Dialogue” was begun during the meal break and continued afterward. After a portion of the videotape had been viewed the Subcommittee heard discussion from members of the Subcommittee and the public regarding their personal experiences with chelation therapy to remove contaminants from their bodies.

Discussion:

Don Box discussed his personal experiences with chelation therapy for plutonium intake that occurred approximately 20 years ago. Therapy with DTPA (diethylenetriamine pentaacetic acid) as the chelating agent began 1.5 years after plutonium exposure. Three series of therapy are summarized as follows:

Series One

- Treatments on Monday, Tuesday, Thursday and Friday occurred for one week, 10 grams of DTPA by inhalation per treatment
- Increased plutonium excretion from 4 disintegrations per milliliter (dis/mL) to 1,000 dis/mL (immediately), then decreased over a three month period returning to 4 dis/mL

Series Two

- Treatments consisted of injections of DTPA on Monday, Tuesday, Thursday, and Friday for one week.
- Increased plutonium excretion from 4 dis/mL to 600 dis/mL (immediately), then decreased over a three month period, returning to approximately 4 dis/mL

Series Three

- Treatments consisted of inhalation of DTPA
- Increased plutonium excretion from approximately 4 dis/mL to 100 dis/mL (immediately), decreasing over a six month period, returning to 2 dis/mL
- Over the last 20 years excretion rate has been approximately 1 dis/mL

Don Box commented that there had been virtually no side effects from the DTPA treatment, and that it was effective in chelating much of the plutonium from his body.

Peggy Adkins discussed her personal experiences with chelation therapy for arsenic. She grew up between Kingston and Oak Ridge, and now has symptoms of Lupus, MS, Lou Gherig's, etc. (a total of 43 symptoms). A doctor informed her that her symptoms could be from an environmental source and suggested that she check with the women she grew up with in the area to see if they have similar problems. At a meeting in Oak Ridge Peggy Adkins encountered people who were familiar with her symptoms and their similarity with the symptoms of Janice Johnson Stokes, who grew up in same area (near the same spring-fed lakes). Peggy Adkins was referred to the environmental and occupational health clinic in Atlanta by her doctor for testing. The clinic refused to test her for metals due to the controversial nature of potential contamination of people from Oak Ridge. It was rumored that the clinic turns down people from Oak Ridge because it is funded by a company that operates an incinerator in Oak Ridge. Peggy Adkins summarized her chelation therapy as follows:

- Received chelation treatments every four months for one week

- Treatments were increased to three times per week at a local facility due to high arsenic levels
- Arsenic levels have now decreased from approximately 446 to near acceptable levels

Peggy Adkins stated that chelation therapy has helped immensely.

Barbara Sonnenburg asked Peggy Adkins whether the treatments were chelation treatments and whether there were any side effects from those treatments. Peggy Adkins responded that they were chelation treatments, initially three times per week in Knoxville, now two times per week in Athens. No side effects from the chelation were reported with the exception of feeling ill immediately after the “BAL” shot. This effect lasted up to two days in the beginning of treatment, but has lessened to dissipating after half of an hour.

Charles Washington asked Don Box how he was exposed to plutonium and over what period of time he received chelation therapy. Don Box explained that he worked with plutonium in a glove box at ORNL. The glove box leaked, releasing plutonium into the air. Thus, he was exposed via inhalation. The chelation therapy began approximately a year and a half after exposure. The first two series of treatments were three months in duration, and the third was six months in duration (a total of nine months). Treatments were administered four days per week. Ten grams of EDTA was inhaled per treatment.

Charles Washington asked Don Box what the target organ is for plutonium? Don Box replied that the target organ is initially the lungs, followed by movement to the lymph nodes (plutonium is a bone seeking element).

Elmer Akin asked Don Box where the reduction is measured, in urine or blood? Don Box responded that the measurements were in urine. There were no blood samples taken. Kowetha Davidson explained that the chelating agent moves the contaminant from a compartment in the body into the bloodstream where it is available for excretion through the urine.

Herman Cember asked Don Box if any whole body counting was performed, and if so, whether it showed that the chelation therapy was effective. Don Box commented that over the years, until retirement, whole body counting was performed annually (detection of plutonium daughter Am-241). Whole body counts taken before chelation were used to determine the amount of exposure (approximately ten body burdens). Whole body counts performed after treatments confirmed the effectiveness of the chelation treatments. Peggy Adkins asked if Don Box’s employer provided the treatments. Don Box responded that treatments were suggested and carried out at ORNL facilities. Peggy Adkins further commented that local residents do not have access to such facilities.

Charles Washington asked Don Box what isotopes and heavy metals were present in his body, commenting that different heavy metals affect different organs of the body (e.g. mercury targets the kidneys). Don Box responded that his intake was plutonium-238.

Kowetha Davidson commented that toxicity of heavy metals in a target organ is distinct from the radioactive concern of heavy metal radionuclides. Uranium has a toxic effect on the kidneys, and it is also radioactive. The concern over plutonium is its radioactive properties. Don Box added that the intake limit for plutonium-238 is very small (very restrictive). Herman Cember clarified that the maximum body burden is 40 nanocuries of activity, which would be a mass so small that it could not be detected by chemical means.

Public Comment

Regarding the video entitled “Chelation Therapy: A Prologue to a Continuing Dialogue” Janet Michel commented that the presentations of case histories never mentioned the medical history having a potential for exposure, a significant omission.

Janet Michel discussed another chelator (DTPA) that has been used for decades to chelate strontium-90, uranium, transuranics. This material is owned by DOE, is in the possession of ORAU (Oak Ridge Associated Universities), and REAC/TS (Radiation Emergency Assistance Center/Training Site), and is unavailable to private physicians. Reportedly DTPA is available in Canada and Europe. It has been used orally, in pill form, and helps protect kidneys and bladder. In the past it was not used with an I.V. or monitoring of vital organs. Consequently some kidney failures occurred. DTPA removes isotopes from the blood stream and organs of deposition. Exposed persons were given approximately three minutes to decide if they wanted the DTPA treatment, without being advised of the advantages and disadvantages of the treatment. This approach may have been followed to avoid providing information, suggesting the possibility of accidental exposures. DOE did not follow the proper protocols for chelation of lead. Janet Michel asked Don Box why ORNL would have treated him with EDTA rather than DTPA.

Janet Michel reported that she has had chelation therapy for mercury (DMPS chelating agent) and nickel. Chelation therapy was terminated due to high out-of-pocket costs. Her symptoms were the same as she felt while working at K-25, working in a building that has been risk mapped by the union for high potential of exposure to nickel and mercury. Insufficient chelation treatments were received to realize a health benefit.

Elmer Akin asked Janet Michel the cost per treatment. Janet Michel responded that the cost was around \$2,000. This cost included fluids received, monitoring, and other lab work that was involved over a five day treatment period.

Don Box commented that, prior to his chelation treatments, the treating doctor (head of the Medical Division at the time) at ORNL discussed the treatment process, potential effects, and what they hoped to accomplish with treatment. Janice Stokes asked Don Box his age when exposed, and if he received free medical treatment since exposure. Don Box responded that he was in his late 40's when he was exposed. He has since had some

pulmonary problems, and received a lung wash at Baptist Hospital. This treatment was administered approximately 4-5 years after exposure.

Janice Stokes mentioned Mr. Clark, the lone survivor of a criticality accident, who was monitored by DOE, but did not receive free medical treatment, nor was he told why he was being monitored.

Herman Cember noted that in 1943-44 twenty seven workers were overexposed by inhalation of plutonium at Los Alamos. Since then, one person died within a year of exposure from a heart attack, one other recently died from cancer, and the others are still being monitored and have greater than body burden amounts of plutonium in them.

Peggy Adkins noted that the cost of her chelation treatments ranged from \$115-125 per session.

Karen Galloway asked Don Box why his chelation treatments were not started until a year and a half after his exposure. Don Box replied that it took several months to determine the level of exposure (he was sent to a number of national laboratories for whole body counts), and treatment had to wait until the level of excretion stabilized. His excretion rate one month from exposure initially was 50-60. After a year and a half, the excretion rate stabilized for three to six months at 4. Then chelation therapy was begun.

Janice Stokes mentioned that she received an offer in Atlanta for chelation treatment at a cost of \$12,000, and another offer from a local nurse. People who need diagnosis and treatment need a local facility/clinic in order to obtain these services.

Break

Work Group Recommendations

AGENDA WORK GROUP

Barbara Sonnenburg reported that the Agenda Work Group has no recommendations.

GUIDELINES AND PROCEDURES WORK GROUP

Karen Galloway recommended from the Guidelines and Procedures Work Group the following recommendation dated August 21, 2002 to the Subcommittee:

RECOMMENDATION ONE:

The Oak Ridge Reservation Health Effects Subcommittee (ORRHES) Guidelines and Procedures Work Group is recommending adoption of “Suggestions for Facilitating Effective Work Group Meetings,” as an aid to all Work Group Chairs in the facilitation of more effective meetings. In the event of a conflict of this document, “Suggestions for Facilitating Effective Work Group Meetings” with the ORRHES By-Laws, the By-Laws shall take precedence. The desired outcome is that each Work Group Chair shall find ideas within this document to help him or her:

- Focus on and clearly define for everyone the tasks assigned to the Work Group;
- Put more work and forethought into the Meeting Agenda to better manage the allotted time;
- Facilitate meaningful discussion of issues, drawing in opinions and ideas from everyone who wishes to participate, while limiting redundant expression of the same points of view;
- Summarize the key points made during a discussion for the benefit of all participants, as well as for the record;
- Keep discussions on-topic;
- Ensure that invited speakers are made aware of the Work Group’s particular concerns and issues in advance, so he or she has the opportunity to fully address those concerns while structuring the presentation; and
- Ensure that the meeting progresses appropriately.

It was moved and seconded that the Subcommittee adopt the recommendation.

Discussion:

There was no discussion.

A vote count was taken:

17 in favor
0 opposed
0 abstentions

The motion carried.

Karen Galloway recommended from the Guidelines and Procedures Work Group the following recommendation dated August 21, 2002 to the Subcommittee:

RECOMMENDATION TWO:

The Guidelines and Procedures Work Group recommends to the Oak Ridge Reservation Health Effects Subcommittee (ORRHES) that the three attached documents (A – “Target characteristics for facilitator candidates,” Michael Wilkinson; B – “What is a group facilitator,” Sandor Schuman; C – “Transcript of ORR Public Health Working Group” be sent to ATSDR for their consideration as one factor in hiring a person for the Oak Ridge Field Office.

It was moved and seconded that the Subcommittee adopt the recommendation.

Discussion:

Kowetha Davidson asked about the origin of Attachment C to the recommendation. James Lewis explained that it is a summary of a meeting of the Oak Ridge Reservation Public Health Work Group on September 9, 1999, at the Oak Ridge Mall.

Bob Craig asked for further explanation regarding the job description and duties. The job description is for an administrative assistant rather than a meeting facilitator. La Freta Dalton responded that the job description is for a SEEP employee (Senior Environmental Employment Program). This is consistent with the request from the Subcommittee. The information concerning facilitation skills in the recommendation will be considered in the hiring process. Karen Galloway commented that facilitation skills are to be considered along with the requirements of the job description.

Herman Cember questioned the age requirement (minimum age is 55). La Freta Dalton explained that SEEP is a program for those 55 and older.

Susan Kaplan commented that early in the public health assessment process that the importance of having a facilitator has been stressed. James Lewis concurred with Susan Kaplan’s comment and reiterated that a facilitator is needed in Work Group meetings.

Jeff Hill stated that Attachment C is inconsistent with some of the ways the Subcommittee functions, and asked whether it would be possible to state that facilitation skills are needed, and remove Attachment C from the recommendation. Susan Kaplan seconded Jeff Hill’s motion to remove Attachment C, and include wording in the job description for facilitation skills. Changes to the wording of the recommendation were discussed. Elmer Akin commented that instead of requiring facilitation skills the job description could specify that the person hired may be subject to facilitation training.

Kowetha Davidson asked for a vote count on the following amended wording of the recommendation:

RECOMMENDATION TWO (amended):

The Guidelines and Procedures Work Group recommends to the Oak Ridge Reservation Health Effects Subcommittee (ORRHES) that the two attached documents (A – “Target characteristics for facilitator candidates,” Michael Wilkinson; B – “What is a group facilitator,” Sandor Schuman; be sent to ATSDR for their consideration of facilitation skills as one factor in hiring a person for the Oak Ridge Field Office.

A vote count was taken.

16 In favor
0 Opposed
1 Abstention

The motion carried.

Donna Mosby expressed concern that the expectations of the new employee will exceed the qualifications in the job description. Bob Craig suggested hiring a professional facilitator rather than burdening an administrative person with the responsibilities of a facilitator. James Lewis agreed that often Work Group meetings need the skills of a facilitator. Tony Malinauskas expressed concern that the ad is misleading, if facilitation skills would be a deciding factor in hiring. If a facilitator is needed, one should be hired. Kowetha Davidson stated that the original request was for an administrative assistant, who would assist committee members in preparing presentations, take minutes, and maintain files.

A vote count was taken on the motion to approve Amended Recommendation number 2:

8 in favor
9 opposed
0 abstentions

The motion did not carry.

COMMUNICATIONS AND OUTREACH WORK GROUP

The Communications and Outreach Work Group made no recommendations.

HEALTH EDUCATION NEEDS ASSESSMENT WORK GROUP

Donna Mosby recommended from the Health Education Needs Assessment Work Group the following recommendation dated June 18, 2002:

RECOMMENDATION ONE (amended):

The Oak Ridge Reservation Health Effects Subcommittee (ORRHES) has determined that discussion of public health activities related to the establishment of a clinic, clinical evaluations, medical monitoring, health surveillance, health studies, and/or biological monitoring is premature to ATSDR's Public Health Assessment (PHA) process.

Thus, the ORRHES recommends that formal consideration of these issues be postponed until the ATSDR PHA process identifies and characterizes an exposure of an off-site population at levels of health concern. If this exposure warrants follow-up public health activities, the ORRHES will then consider these issues in making its recommendations to ATSDR. This recommendation is based on the ORRHES's review, evaluation, and understanding of the items listed in Attachment A.

It was moved and seconded that the Subcommittee adopt the recommendation.

Discussion:

Peggy Adkins proposed an alternative recommendation text to read:

The Oak Ridge Reservation Health Effect Subcommittee (ORRHES) has determined that present policies and law restrict the establishment of a clinic by ATSDR. Clinical evaluation, medical monitoring, health surveillance, health studies and/or biological monitoring are, however, possible. Therefore, ORRHES recommends that while waiting for the completion of ATSDR Public Health Assessments that ORRHES create a task force or Work Group to aggressively explore and encourage innovative alternative sources to check potentially affected residents in the Oak Ridge area for toxicants and their affects, and for tracking trends by location.

La Freta Dalton commented that ORRHES has had extensive discussions regarding the tasks of the Subcommittee, and the available resources are committed to the PHA process.

Jerry Pereira further commented that, with the exception of the health clinic, other health activities listed in the recommendation could be conducted by ATSDR, after completion of, and if warranted by, the PHA process.

Susan Kaplan commented that she does not believe that it is inappropriate for a Work Group of the Subcommittee to explore ways to track health trends by location.

Bob Craig expressed that the Subcommittee should not get off task, and should work through the PHA's so that warranted public health actions may then be taken. Barbara Sonnenburg stated that she supports the idea of exploring resources for checking potentially affected residents while the Subcommittee proceeds with the PHA process. The community has been waiting for two years for something to be done. The PHA process would not be hindered.

A vote count was taken on the motion to approve the alternative amended

Recommendation One:

5 in favor
11 opposed
0 abstentions

The motion did not carry.

A vote count was taken on the motion to approve the original amended Recommendation One:

RECOMMENDATION ONE (amended):

The Oak Ridge Reservation Health Effects Subcommittee (ORRHES) has determined that discussion of public health activities related to the establishment of a clinic, clinical evaluations, medical monitoring, health surveillance, health studies, and/or biological monitoring is premature to ATSDR's Public Health Assessment (PHA) process.

Thus, the ORRHES recommends that formal consideration of these issues be postponed until the ATSDR PHA process identifies and characterizes an exposure of an off-site population at levels of health concern. If this exposure warrants follow-up public health activities, the ORRHES will then consider these issues in making its recommendations to ATSDR. This recommendation is based on the ORRHES's review, evaluation, and understanding of the items listed in Attachment A.

12 in favor
5 opposed
0 abstentions

The motion carried.

Donna Mosby posed the possibility that, if the Subcommittee so directs, a Work Group could try mapping the health concerns of members of the community to track health

trends by location. Kowetha Davidson responded that the Health Education Needs Assessment Work Group should discuss that option during its meetings.

Donna Mosby recommended from the Health Education Needs Assessment Work Group that the Subcommittee adopt the fact sheet on environmental and occupational medical resources:

RECOMMENDATION TWO:

The Oak Ridge Reservation Health Effects Subcommittee (ORRHES) adopts the fact sheet entitled "Environmental and Occupational Medical Resources" draft dated August 20, 2002. A statement should be added to the reverse side of the fact sheet (medical resources for Oak Ridge Reservation workers) directing workers to notify their employers of their health concerns.

This recommendation received a motion, and was seconded.

17 in favor
0 opposed
0 abstentions

The motion carried.

PUBLIC HEALTH ASSESSMENT WORK GROUP

Bob Craig recommended from the Public Health Assessment Work Group the following recommendation dated August 21, 2002:

RECOMMENDATION ONE:

ORRHES recommends that CDC/ATSDR present the public health implications of I-131 thyroid doses (and risks, if feasible) due to releases from the Department of Energy's (DOE) Oak Ridge Reservation (ORR), the Nevada Test Site (NTS), and the combined doses (and risks, if feasible) from the ORR and NTS in its Public Health Assessment for I-131. ATSDR should present the doses (and risks, if feasible), their ranges of uncertainty, and an explanation of the level of uncertainty for public understanding.

It was moved and seconded that the Subcommittee adopt the recommendation.

Discussion:

LC Manley expressed reluctance about combining the I-131 doses from the Oak Ridge RaLa program and doses from the NTS.

James Lewis asked how long it might take to combine the doses and risks from Oak Ridge and the NTS and when the Subcommittee could expect to receive that information, in light of ATSDR informing members of the Subcommittee the previous evening that it could be six months before the evaluation of the relevant data from ORNL can be performed.

Bob Craig responded that the six-month evaluation of data is independent from the task of combining doses from Oak Ridge and the NTS because the data that have yet to be evaluated were recently discovered monitoring data (at Roger's quarry). The evaluation will determine whether those data bring greater credibility to the existing dose estimates from the dose reconstruction.

Herman Cember commented that numerical dose estimates, whether combined or not, will mean little and will be confusing to members of the public and that it is the risk estimates that will be meaningful to people. Herman Cember suggested that the recommendation be amended to propose estimating only risks and not doses. Herman Cember also commented that combining the doses involves the additional complicating issue of the dose rate effectiveness factor (DREF), which affects the meaning of the dose estimates. The National Academy of Sciences (NAS) recommended in the BEIR V report (committee on the Biological Effectiveness of Ionizing Radiation) that a DREF of 2.5 be used to adjust the dose estimates. This is an additional aspect of dose estimates that will be confusing to the public. The dose estimates are merely a step in the process of arriving at risk estimates, which are the more meaningful endpoint to present to the public.

Herman Cember moved that the text of the recommendation be amended to eliminate dose from the text and specify that only risks be estimated. This motion received a second, with confirmation that the recommendation does include combining the impacts from Oak Ridge and the NTS.

Tony Malinauskas suggested that combining doses from Oak Ridge and the NTS would only be confusing and that fallout dose data should be used as a baseline for comparison with the doses from Oak Ridge.

LC Manley commented that, from the perspective of a non-scientist, it is desirable to receive information that is as easy to understand as possible.

Jeff Hill asked for clarification on the text of the amended recommendation.

George Gartseff suggested that the recommendation focus on the impact of the Oak Ridge Reservation itself rather than complicating the issues with added doses from the

NTS or other DOE sites, which may also have had impacts. These points at times confuse members of the Subcommittee so they will likely confuse the public more.

Elmer Akin asked whether ATSDR makes qualitative risk statements rather than quantitative risk estimates. Jack Hanley responded that ATSDR uses dose estimates to make qualitative judgements about those doses based on epidemiological information concerning the impact of the doses. ATSDR's conclusions are based on the dose estimates and their comparison to epidemiological studies, health studies, toxicological studies, or animal studies. Typically, ATSDR does not include quantitative risk estimates in their health assessments because the public does not find those estimates helpful. The dose reconstruction already presents quantitative risk estimates, which may not be helpful to the public. ATSDR finds that the public is given a better understanding of potential health impacts by presenting them with qualitative dose estimates and recommended follow up action for each given level/range of dose. Qualitative judgement is the focus of presentation to the public.

Susan Kaplan asked whether the public health assessment process is mandated to only include consideration of impacts from the Oak Ridge Reservation. Jack Hanley responded that the Superfund mandate for ATSDR public health assessments requires that ATSDR conduct a public health assessment for each Superfund site and where circumstances are such that other sources of public health impact are present the ATSDR mentions those other sources.

Acknowledging that the uncertainties involved are large, James Lewis posed the question that perhaps the Subcommittee should allow the NAS to make a determination about combining doses from other sources rather than proceeding with a recommendation to the ATSDR that doses from NTS be combined with doses from Oak Ridge.

Herman Cember agreed with George Gartseff that the focus should be on the impact of the Oak Ridge Reservation itself, leaving the potential impacts from other sites to be addressed by the ATSDR. Herman Cember modified his motion to eliminate combining exposures from NTS with those from Oak Ridge.

Jeff Hill commented that the total health impact in the community from various sources is the type of information that the public needs rather than the isolated impact from a single source.

At this point Kowetha Davidson called for a vote on the first text amendment proposed by Herman Cember:

ORRHES recommends that CDC/ATSDR present the public health implications of the risks of I-131 thyroid exposures due to releases from the Department of Energy's (DOE) Oak Ridge Reservation (ORR), the Nevada Test Site (NTS), and the combined risks of the exposures from the ORR and NTS in its Public Health Assessment for I-131. ATSDR should present the

risks, their ranges of uncertainty, and an explanation of the level of uncertainty for public understanding.

A vote count was taken on the motion to approve the amended recommendation text moved by Herman Cember:

2 In favor
15 Opposed
0 Abstained

The motion did not carry.

A vote count was taken on the original recommendation text from the Public Health Assessment Work Group:

RECOMMENDATION ONE:

ORRHES recommends that CDC/ATSDR present the public health implications of I-131 thyroid doses (and risks, if feasible) due to releases from the Department of Energy's (DOE) Oak Ridge Reservation (ORR), the Nevada Test Site (NTS), and the combined doses (and risks, if feasible) from the ORR and NTS in its Public Health Assessment for I-131. ATSDR should present the doses (and risks, if feasible), their ranges of uncertainty, and an explanation of the level of uncertainty for public understanding.

10 In favor
6 Opposed
1 Abstained

The motion did not carry.

Kowetha Davidson asked the Subcommittee for specific direction on how to proceed regarding the issue of combining doses.

Bob Craig commented that perhaps a recommendation on the issue of combining doses is not necessary, and that the Public Health Assessment Work Group has already expended much effort arriving at the recommendation brought to the Subcommittee in this meeting.

Jack Hanley commented that, although the Subcommittee has not passed a formal recommendation to ATSDR regarding the issue of combining I-131 doses, ATSDR has heard the importance of the issue and the discussion of the Subcommittee on the issue. ATSDR will work with the Subcommittee on the issue as it formulates the presentation of the results of the public health assessment. The Subcommittee decided to wait for the input of Paul Charp before proceeding on this issue.

Considering the first recommendation from the Public Health Assessment Work Group did not pass, Bob Craig withdrew the second recommendation from the Public Health

Assessment Work Group dated August 21, 2002, because it is an extension of the first recommendation.

RECOMMENDATION TWO:

ORRHES recommends that CDC/ATSDR establish an online calculator so that individuals may obtain estimates of their thyroid doses (and risks, if feasible) due to releases of I-131 from the Oak Ridge Department of Energy Reservation and from the Nevada Test Site along with an option for adding the doses (and risks, if feasible). CDC/ATSDR should provide information to the public on interpretation, uncertainty, and credibility of the results from the calculator and any follow-up action the individual should take as a result of the estimate.

The motion was withdrawn by the Public Health Assessment Work Group.

Unfinished Business/New Business/Issues/Concerns

Administrative Update:

La Freta Dalton reported on the budget status highlighting two documents:

- ORRHES FY2002 Approved Budget Mark, and
- ORRHES Project Obligation Status as of September 30, 2001.

La Freta Dalton reported that ATSDR has enough funds available to operate ORRHES for the remainder of the fiscal year, ending September 30, 2002. No budget information is available for the fiscal year beginning October 1, 2002.

La Freta Dalton distributed a letter to Ms. Beverly Cook (Assistant Secretary, Office of Environment, Safety, and Health, DOE) from Peter McCumiskey (ATSDR), Robert Delaney (National Center for Environmental Health), and DeLon Hull (National Institute for Occupational Safety and Health), regarding the impacts of DOE funding reductions on public health activities.

Donna Mosby asked about the Five Year Plan, noted as an enclosure to the letter. Burt Cooper responded that DOE requires that a five-year plan for public health activities at DOE sites be presented (Agenda for HHS Public Health Activities, for Fiscal Years 2002-2007, at DOE Sites). Accompanying the Agenda was a projected five-year budget. The most recent budget request regarding funding for the next fiscal year (2003) depends upon Congressional appropriations for DOE.

Jerry Pereira commented that he has recently discussed the issue of one point of contact across ATSDR, and the project plan currently in draft with Bob Williams, Director,

Division of Health Assessment and Consultation. Jerry Pereira reported that Bob Williams and Dr. Henry Falk, Assistant Administrator, ATSDR, both support Jerry Pereira as the single project manager/point of contact for Oak Ridge. Jerry Pereira reminded the Subcommittee that he has no control over the budget allocated to ATSDR. The draft project plan will be finalized and brought to the Subcommittee in the near future.

Community Health Concerns Database:

Jack Hanley presented an update on the Community Health Concerns Database (beta version). An intern has been hired (July 1, 2002, Melissa Fish), whose job is to enter concerns into the database. A handout was distributed to the Subcommittee summarizing the concerns entered thus far. Melissa will be here until the end of September. About 1300 concerns have been entered into the database. Concerns have been captured from the minutes of Subcommittee meetings, Work Group meetings, and video tapes of meetings. Ongoing activities will include continuing to enter concerns from concern sheets, written correspondence, Work Group meetings, and also developing queries of the database. Additional information will be available at the next Subcommittee meeting. The Subcommittee expressed great appreciation for the effort on the Community Concerns Database.

Project Plan Work Group:

Kowetha Davidson proposed the establishment of a project Work Group composed of the Work Group chairs, and two additional members, and a member of the community for further development of the ATSDR project plan. Kowetha Davidson proposed serving as lead of the Work Group, which would meet with ATSDR once per month. Written progress reports would be prepared, including:

- updates of expected completion dates
- accomplishments, milestones
- problems encountered
- delays
- what is going on within ATSDR as far as this project is concerned.

There was a motion to establish this Work Group. The motion was seconded.

James Lewis expressed disappointment in adopting Kowetha Davidson's proposal instead of an approach discussed at great length on the previous evening among the Work Group Chairs. James Lewis asked for the opportunity to make a presentation as noted in the agenda of the Subcommittee meeting. A motion was received and seconded to table the discussion at this meeting. A vote was taken by voice and the discussion was tabled until the next Subcommittee meeting. The written presentation document from James Lewis will be circulated to Subcommittee members for consideration before the next Subcommittee meeting. The agenda for that meeting will include adequate time to address the issue.

La Freta Dalton discussed dates for future Subcommittee meetings. The next two meetings of the ORRHES Subcommittee will be October 22, 2002 and December 3, 2002.

Identification of Action Items

The action items are identified below.

ACTION 1: La Freta Dalton will arrange for the addition of a hyperlink on the ORRHES web site to the “Roane County News” web site.

ACTION 2: La Freta Dalton will arrange for the addition of the ORRHES action items chart/matrix to the ORRHES web site.

ACTION 3: La Freta Dalton will explore the possibility of adding the ORRHES “Community Health Concerns Comment Sheet” to the ORRHES web site.

ACTION 4: La Freta Dalton will arrange for the addition of a hyperlink on the ORRHES web site to the ATSDR toxicity profiles on the ATSDR web site.

Housekeeping Issues and Closing Comments

Kowetha Davidson declared the meeting adjourned at 8:41 PM.