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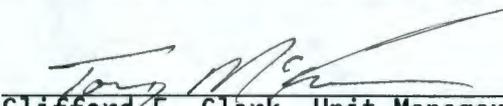
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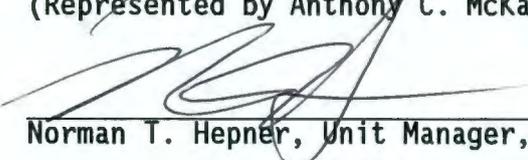
**LOW-LEVEL BURIAL GROUNDS  
Notice of Deficiency Resolution Meeting  
2440 Stevens Ctr., Room 2100  
Richland, Washington**

**November 1, 1995  
3:00 p.m. - 4:00 p.m.**

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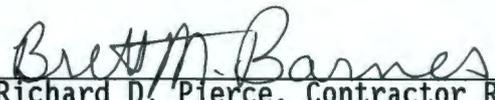
The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above Notice of Deficiency Resolution Meeting.

  
\_\_\_\_\_  
Clifford E. Clark, Unit Manager, RL  
(Represented by Anthony C. McKarns, DOE-RL)      Date: 12/6/95

  
\_\_\_\_\_  
Norman T. Hepner, Unit Manager, Washington State Department of Ecology      Date: 12/6/95

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Low-Level Burial Grounds, WHC Concurrence

  
\_\_\_\_\_  
Richard D. Pierce, Contractor Representative, WHC  
(Represented by Brett M. Barnes, WHC)      Date: 12/6/95

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Purpose: Discuss Notice of Deficiency issues

- Meeting Minutes are attached. The minutes are comprised of the following:
- Attachment 1 - Agenda
  - Attachment 2 - Summary of Discussion and Commitments/Agreements
  - Attachment 3 - Attendance List
  - Attachment 4 - Action Items
  - Attachment 5 - LLBG Part B Permit Applications Review and Response Chronology
  - Attachment 6 - White Paper, Regulation of Radioactive Mixed Waste Under the RCRA
  - Attachment 7 - LLBG Part B Working Draft Review Distribution List 11/1/95



Attachment 1

LOW-LEVEL BURIAL GROUNDS  
Notice of Deficiency Resolution Meeting  
2440 Stevens Ctr., Room 2100  
Richland, Washington

November 1, 1995  
3:00 p.m. - 4:00 p.m.

AGENDA

1. **INTRODUCTIONS (RL/WHC)**
2. **BACKGROUND ON LLBG PART B APPLICATION DEVELOPMENT**
  - Fourth NOD Cycle and Remaining Issues
  - Hanford Facility Permit and General Information Volume
  - Modification Schedule
  - New Ecology Checklist
  - NOD Workshop Schedule
3. **NOD WORKSHOP FORMAT DISCUSSION (ECOLOGY/RL/WHC)**
  - NOD Workshop Approach (chapter-by-chapter resolution and agreement by WHC/RL/Ecology)
4. **IDENTIFICATION OF REMAINING NOD ISSUES (ECOLOGY/RL/WHC)**
  - Waste Acceptance Criteria - Chapter 3
  - Use of unlined trenches - Chapter 1 (Part A), Chapter 4
  - Closure plan, schedule, design - Chapter 11
  - Vadose Zone Monitoring - Chapter 5
  - Exemption Request and EPP - Chapter 4
  - Lead Shielding - Chapter 1 (Part A)
5. **ACTION ITEMS (ECOLOGY/RL/WHC)**
  - New Action Items
6. **SCHEDULE NEXT MEETING (ECOLOGY/RL/WHC)**
  - Tentative Date
  - Proposed Topics

**Attachment 2****LOW-LEVEL BURIAL GROUNDS  
Notice of Deficiency Resolution Meeting  
2440 Stevens Ctr., Room 2100  
Richland, Washington**

**November 1, 1995  
3:00 p.m. - 4:00 p.m.**

**Summary of Discussion and Commitments/Agreements****1. INTRODUCTIONS (RL/WHC)**

Introductions were made previously at the Unit Managers Meeting.

**2. BACKGROUND ON LLBG PART B APPLICATION DEVELOPMENT**

Ms. G. Cummins (WHC) discussed background on LLBG Part B application development. Ms. Cummins said the DOE/RL-88-20, WD-1, "Hanford Facility Dangerous Waste Permit Application Low-Level Burial Ground," working draft is in an electronic format. This draft also follows the revised Ecology Part B checklist issued in February 1995.

Ms. Cummins handed out the LLBG Part B Permit Applications Review and Response Chronology (Attachment 5), stating it may be helpful background information.

The working draft has been reduced from five volumes to one. This volume reduction was largely due to the ability to cross-reference to the Hanford Facility Dangerous Waste Permit Application, General Information volume. In addition, most of the maps and appendices have already been provided to Ecology. Ms. S. Price (WHC) agreed to provide a talk on the General Information volume (DOE/RL-91-28) at the next Ecology permitting team meeting.

**3. NOD WORKSHOP FORMAT DISCUSSION (ECOLOGY/RL/WHC)**

Ms. Cummins said Mr. R. Julian (Ecology) has gone through NOD workshops for the PUREX Tunnels Part B and she suggested that the LLBG workshop be conducted in the same way. The process involves sending out a DSI, from DOE to Ecology, with a summary of changes and chapters to be reviewed for the next workshop. The DSI will request that comments be identified as 'issue' comments and 'language' comments. For the PUREX Part B, NOD workshop status notes were provided instead of meeting minutes. Status notes will be covered as part of the LLBG unit manager meeting.

On resolution of issue comments and language comments, signoff of the chapter could be completed. One last wrap-up meeting for signoffs would be held before the Part B goes public.

**4. IDENTIFICATION OF REMAINING NOD ISSUES (ECOLOGY/RL/WHC)**

The need to resolve the five remaining NOD issues by December 1995 was discussed. A commitment was made by DOE/WHC to forward these resolutions to Mr. N. Hepner (Ecology) as soon as they are reviewed internally. A commitment was made by DOE/WHC to expedite their internal review.

Ms. Cummins handed out a White Paper covering the 1987 date for regulation of mixed waste under RCRA (Attachment 6). The participants agreed that this date needs to be discussed by the DOE and Ecology attorneys to reach an agreement. Mr. A. McKarns (RL) and Mr. Hepner agreed to forward the White Paper to their respective Legal departments by 11/30/95 to reach resolution on the 11/87 date.

Ms. Cummins stated that the details of the closure plan, Chapter 11, will be discussed at a later date.

Ms. Cummins stated that Chapter 5, Groundwater Monitoring, will be addressed in the Hanford Facility Permit for the sitewide approach. A discussion of unit-specific interim status groundwater monitoring will be included as an appendix in the LLBG Part B.

Chapter 4, Process Information, will be covered in December 1995.

Regarding Chapter 1 (Part A), Mr. Hepner stated that Ecology's position is that lead shielding is waste if it is meant for disposal. Mr. B. Barnes (WHC) suggested that the lead shielding issue be discussed at a RIPI Council meeting. Mr. Hepner agreed that it was appropriate to take another look at this issue.

Ms. Cummins handed out a Distribution List for LLBG Part B Working Draft Review (Attachment 7).

**5. ACTION ITEMS (ECOLOGY/RL/WHC)**

- **New Action Items**

Ms. S. Price (WHC) agreed to provide a talk to Ecology on the Hanford Facility Dangerous Waste Permit Application, General Information volume either November 14, December 6, or December 7, 1995.

DOE/WHC will expedite internal review of the responses to the five remaining NOD comments and forward these responses to Mr. Hepner as soon as possible.

Mr. A. McKarns (DOE) and Mr. N. Hepner (Ecology) will forward the White Paper (Attachment 6) to their respective Legal departments by 11/30/95.

Ms. S. Price (WHC) will contact Ms. N. Darling (WHC) in regard to bringing the lead shielding issue before the RIPI Council.

6. **SCHEDULE NEXT MEETING (ECOLOGY/RL/WHC)**

- **Tentative Date**

The next meeting was scheduled for November 15.

- **Proposed Topics**



Attachment 4

LOW-LEVEL BURIAL GROUNDS  
Notice of Deficiency Resolution Meeting  
2440 Stevens Ctr., Room 2100  
Richland, Washington

November 1, 1995  
3:00 p.m. - 4:00 p.m.

Action Items

<u>Action Item</u>	<u>Description</u>
11-01-95:1	Forward the White Paper to respective Legal departments to reach resolution on the 11/87 date. ACTION: Mr. A. McKarns (RL) and Mr. N. Hepner (Ecology).  <b>OPEN</b>
11-01-95:2	Arrange for discussion on lead shielding at the RIPE council meeting.  <b>OPEN</b>
11-01-95:3	Talk to Ecology about the Hanford Facility Permit and General Information Volume. ACTION: Ms. S. Price (WHC)  <b>OPEN</b>

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Attachment 5

**LOW-LEVEL BURIAL GROUNDS**  
**Notice of Deficiency Resolution Meeting**  
2440 Stevens Ctr., Room 2100  
Richland, Washington

November 1, 1995  
3:00 p.m. - 4:00 p.m.

**LOW-LEVEL BURIAL GROUNDS**  
**PART B PERMIT APPLICATIONS**  
**REVIEW AND RESPONSE CHRONOLOGY**

LOW-LEVEL BURIAL GROUNDS  
PART B PERMIT APPLICATIONS  
REVIEW AND RESPONSE CHRONOLOGY

NOVEMBER 1, 1995

1. DOE/WHC transmits to Ecology on 12-21-89 Revision 0 of LLBG Part B.
2. Ecology transmits to DOE/WHC on 3-30-90 partial review comments on Revision 0 of LLBG Part B; Ecology states that additional written comments, in NOD format, will be submitted within 45 calendar days. No response date for NODs is cited in the Ecology letter.
3. Ecology transmits to DOE/WHC on 5-25-90 additional review comment on Revision ) of LLBG Part B. Ecology requests NOD Response Table be submitted on 6-30-90 for comments dated 3-30-90 and on 8-23-90 for comments dated 5-25-90.
4. DOE/WHC transmits to Ecology on 6-25-90 a request for extension to submit a combined NOD Response Table to Ecology on 9-25-90.
5. Ecology responds to request for extension on 6-28-90. Ecology extends the requested submittal date to 8-25-90 for a combined NOD Response Table addressing NOD comments dated 3-30-90 and 5-25-90.
6. DOE/WHC submits to Ecology on 8-23-90 the combined NOD Response Table.
7. DOE/WHC submits to Ecology on 7-24-90 the 9090 Test Plan for review. This is the Project w-025, Radioactive Mixed Waste Disposal Facility Liner/Leachate Compatibility Test Plan.
8. DOE/WHC submits to Ecology on 7-24-90 Supplement 1. This is the Request for Exemption from Lined Trench Requirements for Submarine Reactor Compartments.
9. DOE/WHC submits to Ecology on 9-20-90 Supplement 2. This is the Design Documentation for Mixed Waste Nondragoff Land Disposal Facility (Project W-025). The 9090 Test Plan was resubmitted as part of the Design Documentation. DOE/WHC requests that ecology Provide comments on the Design Documentation by 12-28-90.
10. DOE/WHC submits to Ecology on 1-10-91 a request for concurrence that the SRC disposal packages with residual liquids comply with disposal regulations.
11. Ecology transmits to DOE/WHC on 4-26-91 the NOD comments on Supplement 2.
12. DOE/WHC submits to Ecology on 6-11-91 the Construction Quality Assurance Plan.
13. DOE/WHC submits to Ecology on 7-26-91 the second NOD Response Table addressing 171 NOD comments received from Ecology.

14. Ecology transmits to DOE/WHC on 2-18-92 the third letter regarding NODs requesting a response table be submitted to Ecology on or before 4-30-92.
15. DOE/WHC submits to Ecology on 4-30-92 the third NOD Response Table addressing the 179 NOD comments received from Ecology. Revisions to table are submitted to Ecology 10-27-92.
16. DOE/WHC submits to Ecology on 1-7-93 the Engineered Performance Plan and requests a temporary exemption regarding Supplement 1 Rev. 1. (Request for Exemption from Lined Trench Requirements and from Land Disposal Restrictions for Residual Liquid at 218-E-12B Burial Ground Trench 94).
17. Ecology transmits to DOE/WHC on 1-8-93 the fourth letter regarding NODs addressing 47 unresolved comments and requesting a response table be submitted to Ecology 4-9-93.
18. DOE/WHC submits to Ecology on 4-7-93 the Response Action Plan for the and the Quality Assurance Program Plan for the Mixed Waste Trench (Project W-025).
19. DOE/WHC submits to Ecology on 4-9-93 the fourth NOD Response Table addressing Ecology's 47 comments that remain unresolved out of the original 389 comments.
20. Ecology transmits to DOE/WHC on 9-2-93 a response to Engineered Performance Plan (EPP) transmittal and temporary exemption request letter from DOE/WHC dated 1-7-93. Ecology determined that the EPP will fulfill their request for a demonstration project to verify the adequacy of the SRC disposal alternative. Also, because Trench 94 is an interim status unit, the alternative landfill design described in Supplement 1 can be used until the design is approved or disapproved in the final permit. Ecology states the exemption will likely be granted when the Low-Level Burial Grounds are incorporated into the Hanford Facility Dangerous Waste Permit. However, this will require Ecology's review of the EPP details and a public comment period.
21. Ecology defers resolution of remaining NOD comments at 10-27-93 Unit Manager's Meeting (UMM) until the Hanford Facility Permit has at least gone through the public comment period due to LLBG related site-wide issues. The UMMs are discontinued until the Hanford Facility Permit issues are resolved. The UMMs resume 9-1-94.
22. The Hanford Facility Permit is finalized 8-1-94 and becomes effective 9-1-94. Negotiations with Ecology regarding when the LLBG permit will be incorporated into the Hanford Facility Permit are completed 1-18-95. It is determined that the LLBG will be incorporated into Modification C which becomes effective 7-1-97. An advanced copy of the revised Part B permit application is due to Ecology on 10-1-96.
23. DOE/WHC submits to Ecology on 1-5-95 the As-built drawings for the Mixed Waste Trenches 31 and 34. A formal transmittal of the As-built drawings and Construction Quality Assurance (CQA) report is submitted to Ecology on 3-28-95.

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24. DOE/WHC submits to Ecology on 7-19-95 a revision of the Response Action Plan to include project W-025 trench 34.

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**Attachment 6**

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Richland, Washington**

**November 1, 1995  
3:00 p.m. - 4:00 p.m.**

**WHITE PAPER  
REGULATION OF RADIOACTIVE MIXED WASTE UNDER THE RCRA**

## SUMMARY

The EPA has stated that radioactive mixed waste (RMW) disposal that occurred before the effective date of RCRA applicability for the waste is not subject to the provisions for treatment, storage, or disposal under the RCRA. However, the EPA also indicates that such disposed of wastes would qualify as solid waste, and therefore would be subject to all applicable provisions of the RCRA corrective action program. The Hanford Facility Permit and the Tri-Party Agreement address corrective action requirements for Hanford.

The State of Washington received authority to regulate RMW as of November 23, 1987. RMW that is "actively managed" (i.e., treated, stored or disposed) on or after November 23, 1987 must be managed in accordance with the Subtitle C provisions for hazardous wastes. RMW (or suspect RMW) that had been disposed of in Washington prior to November 23, 1987 that is exhumed must be designated pursuant to WAC 173-303 and if dangerous, must be managed pursuant to WAC 173-303. If process knowledge or testing indicates that retrieved wastes exhibit any characteristics/criteria for designation as dangerous waste, then the waste must be designated as dangerous or as radioactive mixed waste and managed in accordance with the generator standards of WAC 173-303-200 or transported to a treatment, storage, and/or disposal unit that can provide for proper management pursuant to WAC 173-303.

## BACKGROUND

Historically, there has been considerable confusion regarding the scope of the Resource Conservation and Recovery Act (RCRA), particularly with respect to the regulation of radioactive materials that are also regulated under the Atomic Energy Act. Congress, in originally passing the RCRA, specifically excluded source, special nuclear, and byproduct material as defined by the Atomic Energy Act [RCRA, Section 1004(27)]. However, the DOE did not provide definitive clarification concerning the scope of the byproduct exclusion until May 1, 1987, when the so-called "byproduct rule" was issued.

On July 3, 1986, the U.S. Environmental Protection Agency (EPA) published notice (51 FR 24504) that radioactive mixed wastes are to be part of authorized State programs. In that notice, the EPA required states to demonstrate authority to regulate the hazardous component of mixed waste as a condition for obtaining/maintaining authorization to administer and enforce a hazardous waste program pursuant to Subtitle C of the Resource Conservation and Recovery Act (RCRA). Additionally, the EPA maintained that, as of July 3, 1986, "currently authorized State programs do not apply to radioactive mixed wastes." In making this statement, the EPA indicated that they had now determined that "wastes containing both hazardous waste and radioactive waste are subject to the RCRA regulations." As a result, the July 3, 1986 notice required states with authorized programs to revise their programs and apply for authorization for the hazardous components of radioactive mixed wastes.

The State of Washington had an authorized hazardous waste program at the time of the above notice and did subsequently obtain authorization to regulate the hazardous components of radioactive mixed wastes. On September 23, 1988, the EPA issued a clarification notice (53 FR 37045) that addressed the need for facilities which treat, store, or dispose of radioactive mixed waste to obtain interim status pursuant Subtitle C of the RCRA. In that notice the EPA stated,

"Some facilities in States with base program authorization as of July 3, 1986 may already have interim status under RCRA because they handle other RCRA hazardous wastes. These facilities should submit a revised Part A permit application reflecting their radioactive mixed waste activities within six months of the State's receipt of authorization for radioactive mixed waste."

96-13389-1000  
The Hanford Facility Part A permit application is maintained to address all dangerous waste treatment, storage, and disposal activities, including activities involving the management of radioactive mixed wastes.

The EPA has previously addressed the issue of active management of waste that had been disposed of prior to the effective date of regulations that would otherwise be applicable to the waste. In issuing the First Third rule for the LDRs, the EPA responded to challenges concerning the EPA's interpretation of their own rules. In that rule, the EPA made the following remarks:

"A few commenters disputed the Agency's reading that hazardous waste listings are retroactive; that is, all wastes meeting the listing description are hazardous regardless of when they were disposed. EPA believes this point to be nearly self-evident: a waste either does or does not match a listing description. The time at which a waste was disposed does not affect what that waste is. Spent solvent still bottoms disposed of in 1979 (before Agency action listing these wastes as hazardous) are as much spent solvent still bottoms as those disposed in 1981 (after the listing took effect)...EPA believes therefore that the hazardous waste listing can be retroactive. Thus, wastes derived from treating, storing, or disposing of these wastes likewise are hazardous, as are mixtures of these wastes and other solid wastes. For land disposal restrictions purposes, this means that these residues could become subject to the land disposal restrictions for the listed waste from which they derive if they are managed actively after the effective date of the land disposal prohibition for the underlying waste."

In the above, the EPA takes the position that hazardous waste can be derived from the disposal of waste, irrespective of the date of disposal in relation to the effective date of regulation. The EPA believes that hazardous waste is thus "derived-from waste" if it is actively managed. In the case of hazardous waste disposed of prior to the effective date of regulation, retrieval of the waste would require proper designation and subsequent management pursuant to the land disposal restrictions prior to re-disposal.

In the debris final rule, the EPA again addresses the issue of active management, stating:

"Once debris becomes a solid waste by virtue of being discarded...it is not necessarily subject to the treatment standards. For example, contaminated debris that is not actively managed after the effective date of the prohibitions (i.e., the effective date of the LDRs for the hazardous waste contaminating the debris) would not be subject to the standards...On the other hand, debris which is contaminated with hazardous waste disposed before the hazardous waste listing effective date and which is actively managed is subject to the prohibitions and so would have to be treated to satisfy the treatment standards promulgated today before the debris could be land disposed (assuming disposal will not occur in a no-migration unit)."

Again, the EPA indicates that active management will trigger the RCRA requirements for wastes discarded prior to the applicable effective date.

Some radioactive wastes have been disposed of prior to the date that the State of Washington was granted mixed waste authority. Such wastes, if also hazardous, would not be considered to be actively managed under the RCRA unless exhumed.

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**Attachment 7**

**LOW-LEVEL BURIAL GROUNDS  
Notice of Deficiency Resolution Meeting  
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Richland, Washington**

**November 1, 1995  
3:00 p.m. - 4:00 p.m.**

**LLBG PART B WORKING DRAFT REVIEW  
DISTRIBUTION LIST 11/1/95**

LLBG Part B Working Draft Review  
Distribution List 11/1/95

Ecology - Norm Hepner\*

EPA - Dave Barths

RL

Allison Crowell - Programs \*  
Cliff Clark - EAP \* (2 copies)  
Mike Ciminera/Gerry Hendricks - MACTEC \*  
Roger Gordon - Programs, PSNS  
Mark French - Programs, PSNS \*  
Rudy Guercia - Programs \*  
Tony McKarns - EAP\*

WHC - Solid Waste Disposal - Bill Hamilton, Mgr. Level 2

Generator Waste Acceptance Services - Rick Pierce, Mgr. Level 3

Brett Barnes \*  
Acceptance Services - Cindy Girres, Mgr. Level 4

Solid Waste Management - Paul Hapke, Mgr. Level 3; Sarah Campbell, ECO

SWM Operations - Paul Krane, Mgr. Level 4  
Don Pyzel \*

SWM Facility Engineering - Dean Powell, Mgr. Level 4 \*  
Dean Pratt \*  
Roger Whitlock\*

SWM - Bob Giroir, Mgr. Level 4

SWM Training and Special Disposal Operations - Norm Emerson, Mgr. Level 4  
Ron Mangum \*  
Stuart Arnold  
Ron Robbins (training)\*

SWM Ops Support and Work Control - Russ Reddinger, Mgr. Level 4  
Sarah Campbell \*

Restoration and Upgrade Programs - Dale Mckenney, Mgr. Level 3

Solid Waste Programs - Jeff Riddelle, Mgr. Level 4  
Restoration Projects - Tim Erickson, Mgr. Level 4  
Solid Waste Systems Engr. - Ken Hladek, Mgr. Level 4

RCRA Permitting - Sue Price - Mgr. Level 3 \*

RCRA Unit Permits - Roger Bowman  
Joel Williams, Jr.  
Gloria Cummins \*

\*NOD Workshop Participant

## Distribution:

L. D. Arnold	WHC	B2-35
B. M. Barnes	WHC	T3-04
R. C. Bowman	WHC	H6-24
B. J. Broomfield	WHC	T3-04
S. E. Campbell	WHC	T4-05
R. M. Carosino	RL	A4-52
C. E. Clark	RL	A5-15
A. K. Crowell	RL	S7-55
G. D. Cummins	WHC	H6-24
N. P. Emerson	WHC	T4-03
M. S. French	RL	S7-55
R. J. Giroir	WHC	T4-05
R. F. Guercia	RL	S7-55
P. L. Hapke	WHC	T4-05
G. D. Hendricks	GSSC	B1-42
N. T. Hepner	Ecology	B5-18
S. Leja	Ecology	B5-18
D. R. Lucas	WHC	G3-15
P. J. Mackey	WHC	B3-15
R. D. Pierce	WHC	T3-04
D. B. Powell	WHC	T4-03
D. A. Pratt	WHC	T4-03
S. M. Price	WHC	H6-23
L. T. St. Georges	WHC	H6-20
H. T. Tilden	PNL	P7-79
RCRA/File	WHC	H6-24

ADMINISTRATIVE RECORD: Low-Level Burial Grounds, D-2-9  
[Care of EDMC, WHC (H6-08)]

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Please send comments on distribution list to JoAnn McCoy, WHC (H6-24),  
(509) 372-3596.