DRC-03
October 1989

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE

License # UT 2300249
Amendment # 21

Exhibit 23

Envirocare of Utah, Inc.
46 West Broadway, Suite 240
Salt Lake City, Utah 84101

In accordance with letters dated July 5, and September 18, 1995, radioactive material license number UT 2300249 is amended as follows:

Items 6. Radioactive Material (element and Mass number)	7. Chemical and/or physical form	8. Maximum average concentration in waste for disposal
XX. Bismuth-207	XX. through AAA. inclusive. Volumetric bulky soil or soil-like materials or debris	XX. 4.0E02 pCi/g
YY. Samarium-151		YY. 1.0E03 pCi/g
ZZ. Tantalum-182		ZZ. 5.0E02 pCi/g
UU1. Yttrium-88		UU1. 3.0E02 pCi/g
AAA. Thallium-204		AAA. 1.0E03 pCi/g

55. Except as specifically provided otherwise by this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Utah Radiation Control Rules shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the rules.

UTAH RADIATION CONTROL BOARD

11/15/95
Date

William J. Sinclair, Executive Secretary

DRC-03-8/89

UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE

Pursuant to Section 19-3-104 of the Utah Code Annotated 1953, and the Utah Department of Environmental Quality Rules for the Control of Ionizing Radiation, and in reliance of statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing such licensee to transfer, receive, possess and use the radioactive material designated below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, and orders now or hereafter in effect and to any conditions specified below.

LICENSEE		3. License Number UT 2300249 Amendment 20, In its entirety
1. Name	Envirocare of Utah, Inc.	
2. Address	46 West Broadway Suite 240 Salt Lake City, Utah 84101	4. Expiration Date February 28, 1996
		5. License Category 4-a

6. Radioactive Material (element and mass number)		7. Chemical and/or physical form	8. Maximum average concentration in waste for disposal	
A1.	Americium-241	A1. through WW. inclusive. Volumetric bulky soil or soil-like materials or debris	A1.	2.3E03 pCi/g
A2.	Americium-243		A2.	1.7E03 pCi/g
B1.	Antimony-124		B1.	7.9E02 pCi/g
B2.	Antimony-125		B2.	5.3E03 pCi/g
C.	Barium-133		C.	4.0E03 pCi/g
D.	Beryllium-7		D.	3.8E04 pCi/g
E.	Cadmium-109		E.	4.6E04 pCi/g*
F.	Calcium-45		F.	4.0E04 pCi/g
G.	Carbon-14		G.	2.0E05 pCi/g
H1.	Cerium-139		H1.	2.0E03 pCi/g
H2.	Cerium-141		H2.	4.0E03 pCi/g

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H3. Cerium-144		H3. 4.0E03 pCi/g*
I1. Cesium-134		I1. 1.2E03 pCi/g
I2. Cesium-135		I2. 5.0E02 pCi/g
I3. Cesium-137		I3. 5.6E02 pCi/g*
J. Chromium-51		J. 6.8E04 pCi/g
K1. Cobalt-56		K1. 3.6E02 pCi/g
K2. Cobalt-57		K2. 1.9E04 pCi/g
K3. Cobalt-58		K3. 1.6E03 pCi/g
K4. Cobalt-60		K4. 3.6E02 pCi/g
L. Copper-67		L. 2.0E03 pCi/g
M1. Curium-242		M1. 1.0E03 pCi/g
M2. Curium-243		M2. 1.5E03 pCi/g
M3. Curium-244		M3. 1.0E03 pCi/g
N1. Europium-152		N1. 1.7E03 pCi/g
N2. Europium-154		N2. 1.4E03 pCi/g
N3. Europium-155		N3. 1.7E03 pCi/g
O. Gadolinium-153		O. 3.0E03 pCi/g

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	6. Radioactive Material (element and mass number)	7. Chemical and/or physical form	8. Maximum average concentration in waste for disposal
P.	Germanium-68		4.0E03 pCi/g*
Q.	Gold-195		2.0E03 pCi/g
R.	Hafnium-181		1.0E03 pCi/g
S.	Hydrogen-3		2.0E05 pCi/g
T1.	Iodine-125		1.5E03 pCi/g
T2.	Iodine-129		3.1E02 pCi/g
U.	Iridium-192		2.5E03 pCi/g
V1.	Iron-55		2.0E04 pCi/g
V2.	Iron-59		4.0E02 pCi/g
W.	Lead-210		2.0E04 pCi/g*
X.	Manganese-54		5.6E03 pCi/g
Y.	Mercury-203		1.0E04 pCi/g
Z.	Neptunium-237		2.0E03 pCi/g++
AA1.	Nickel-59		7.0E02 pCi/g
AA2.	Nickel-63		1.0E04 pCi/g
BB.	Niobium-94		1.6E02 pCi/g

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CC1.	Plutonium-238		CC1. 1.0E03 pCi/g
CC2.	Plutonium-239		CC2. 1.0E03 pCi/g
CC3.	Plutonium-240		CC3. 1.0E03 pCi/g
CC4.	Plutonium-241		CC4. 3.5E03 pCi/g
CC5.	Plutonium-242		CC5. 1.0E03 pCi/g
DD.	Polonium-210		DD. 2.0E04 pCi/g
EE.	Potassium-40		EE. 1.0E03pCi/g
FF.	Promethium-147		FF. 4.0E03 pCi/g*
GG1.	Radium-226		GG1. 2.0E03 pCi/g*
GG2.	Radium-228		GG2. 1.8E03 pCi/g
GG3.	Radium-228 (1 year)		GG3. 1.2E03 pCi/g#
GG4.	Radium-228 (5 years)		GG4. 6.7E02 pCi/g#
GG5.	Radium-228 (10 years)		GG5. 5.6E02 pCi/g#
HH.	Rubidium-83		HH. 1.0E03 pCi/g
II.	Ruthenium-106		II. 1.9E04 pCi/g*
JJ.	Scandium-46		JJ. 4.0E02 pCi/g
KK.	Selenium-75		KK. 1.0E03 pCi/g

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LL.	Silver-108m		LL.	5.0E02 pCi/g
MM.	Silver-110m		MM.	5.6E02 pCi/g
NN.	Sodium-22		NN.	7.8E02 pCi/g
OO1.	Strontium-85		OO1.	5.0E02 pCi/g
OO2.	Strontium-89		OO2.	2.0E03 pCi/g
OO3.	Strontium-90		OO3.	2.0E04 pCi/g*
PP.	Sulfur-35		PP.	4.0E03 pCi/g
QQ.	Technetium-99		QQ.	1.0E04 pCi/g
RR1	Thorium-230		RR1.	1.5E04 pCi/g
RR2.	Thorium-232		RR2.	6.8E02 pCi/g*
SS.	Tin-113		SS	1.0E04 pCi/g
TT1.	Uranium-234		TT1.	3.7E04 pCi/g
TT2.	Uranium-235		TT2.	7.7E02 pCi/g
TT3.	Uranium-236		TT3.	3.6E04 pCi/g
TT4.	Uranium-238		TT4.	2.8E04 pCi/g++
TT5.	Uraniuum-natural		TT5.	1.8E04 pCi/g++
TT6.	Uranium-depleted		TT6.	1.1E05 pCi/g++

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6. Radioactive Material (element and mass number)	7. Chemical and/or physical form	8. Maximum average concentration in waste for disposal
UU. Yttrium-91		UU. 2.0E03 pCi/g
VV. Zinc-65		VV. 1.1E04 pCi/g
WW. Zirconium-95		WW. 5.0E02 pCi/g*

Ra-228 with its decay products present at the times indicated after separation as pure Ra-228.

* Decay products are assumed to be present in concentrations equal to parent.

++ Short lived decay producat of U-239 (Th-234 and Pa-234) and of Np-237 (Pa-233) are assumed to be present in concentrations equal to the parent.

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9. AUTHORIZED USE

Radioactive material as bulk radioactive waste may be received, stored and disposed of by land burial. Additionally, prior to receiving an initial, low-level radioactive waste shipment for disposal, the licensee shall obtain from the generator, documentation which demonstrates that the low-level radioactive wastes have been approved for export /transfer to the licensee. Approval is required from the low-level radioactive waste compact of origin, or for states unaffiliated with a low-level radioactive waste compact, the state of origin, to the extent a state can exercise such approval. The documentation shall be submitted to the Executive Secretary of the Utah Radiation Control Board within 10 working days of the last day of each month.

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CONDITIONS

10. Licensed material shall be used at the licensee's facility located in Section 32 of Township 1 South and Range 11 West, Tooele County, Utah.

11. The licensee shall not possess at any time, more than 300,000 cubic yards of radioactive waste material which is not disposed of in accordance with the finished design requirements. This includes all wastes in storage or active processing.

12. Pursuant to R313-12-54(1), the licensee is granted an exemption to R313-25-9, as it relates to land ownership and assumption of ownership.

13. The maximum quantity of special nuclear material which the licensee may possess, undisposed of, at any one time shall not exceed; 350 grams of U-235, 200 grams of U-233, and 200 grams Pu, or any combination of them in accordance with the following formula.

$$\frac{\text{(Grams U-235)}}{350} + \frac{\text{(Grams U-233)}}{200} + \frac{\text{(Grams Pu)}}{200} \leq 1$$

14. Licensed material specified in Item 6.A through 6.KKK shall not be placed in a disposal cell unless it has been determined that the concentration of radionuclides is approximately homogeneous within the physical form of the waste. This does not pertain to debris superficially contaminated with licensed materials.

15. A. The licensee may receive for treatment, storage, and disposal any radioactive waste as authorized by this license that is also determined to be hazardous as permitted by the "Hazardous Waste Plan Approvals" issued and modified by the Executive Secretary, Utah Solid and Hazardous Waste Control Board and "HWSA Permit" issued by the U.S. Environmental Protection Agency.

B. The licensee shall dispose of these wastes in the "mixed waste" disposal embankment only.

16. A. If a mixture of radionuclides a, b, and c are present in the waste in the concentrations C_a, C_b, and C_c and if the applicable maximum average waste concentrations from Item 8 of this license are MWC_a, MWC_b, and MWC_c respectively, then the concentration in the waste shall be limited so that the following relationship exists.

$$\frac{C_a}{MWC_a} + \frac{C_b}{MWC_b} + \frac{C_c}{MWC_c} \leq 1$$

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B. If a single radionuclide is present in the waste, the maximum average concentration shall not exceed the applicable value found in Item 8 of this license.

17. Sealed sources as defined in R313-12-3(64) shall not be accepted for disposal.

18. Radioactive waste containing free liquid shall not be accepted for disposal. Such waste shall be managed in accordance with the LARW Waste Management Plan currently approved by the Executive Secretary of the Utah Radiation Control Board.

19. The licensee shall comply with the provisions of Chapter R313-18, "Notices, Instructions and Reports to Workers by Licensees or Registrants, Inspections" and Chapter R313-15, "Standards for Protection Against Radiation".

20. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of R313-19-100 "Transportation".

21. Written procedures shall be maintained and available at the disposal facility for operations involving radioactive materials. The procedures shall incorporate operating instructions and appropriate safety precautions for the work. The employee training program shall include detailed review of the operating procedures applicable to the employee's assignments. The requirement for written procedures shall include establishment of procedures for conduct of the radiation safety and environmental monitoring programs, including analytical procedures and instrument calibration requirements. Written procedures and subsequent changes to the procedure shall be reviewed and approved by the Corporate Radiation Safety Officer and the Project Manager. At least annually, all procedures shall be reviewed to assure continued applicability.

22. The Corporation Radiation Safety Officer or other qualified individual designated by the Corporate Radiation Safety Officer shall perform and document weekly inspections of the facility and report any findings of non-compliance, affecting radiological safety, to the Project Manager. Items for inspection include: operating procedures, license requirements and safety practices.

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23. The licensee shall conduct contamination surveys in accordance with the following table.

ROUTINE MONITORING AND CONTAMINATION SURVEYS

Type	Location	Frequency
A. Gamma Radiation Levels	1. Perimeter of Controlled Area(s)	1. Weekly
	2. Office Area	2. Weekly
	3. Lunch/Change Area	3. Weekly
	4. Transport Vehicles	4. Upon Arrival at Site and before departure.
B. Contamination Wipes	1. Eating Area	1. Weekly
	2. Change Area	2. Weekly
	3. Office Areas	3. Weekly
	4. Railcar rollover and control shack	4. Weekly
	5. Equipment/Vehicles	5. Once before release
C. Employee/ Personnel	1. Skin & Personal clothing	1. Prior to exiting controlled area
D. Gamma Exposure	1. Administration Bldg.	1. Quarterly
	2. Security Trailer	2. Quarterly
E. Radon Concentration	1. Administration Bldg.	1. Quarterly
	2. Security Trailer	2. Quarterly

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24. The licensee shall conduct a bioassay program in accordance with letter dated July 16, 1993.

25. The use of respirators shall be controlled by a respiratory protection program in accordance with letter dated July 16, 1993, and as stipulated in R313-15-103.

26. The licensee shall calibrate air sampling equipment at intervals not to exceed six months.

27a. The operational environmental monitoring program shall be conducted in accordance with the license application revised Section 4.5.4, table 4.7, and figure 4.5 submitted in letter dated July 20, 1993.

27b Notwithstanding condition 27a, the licensee is exempt from Section 4.5.4.6, Wildlife Sampling.

28. A. Vehicles, containers, facilities, materials, equipment or other items for unrestricted use, except conveyances as defined in R313-19-4, used for commercial transport of radioactive waste material, shall not be released from the licensee's control if contamination exceeds the limits found in Table 28-A:

TABLE 28 - A

Nuclide[a]	Column I Average [b,c]	Column II Maximum [b,d]	Column III Removable [b,c]
U-nat, U-235, U-238, and associated decay products	5,000 dpm alpha/ 100 cm^2	15,000 dpm alpha/ 100 cm^2	1,000 dpm alpha/ 100 cm^2
Transuranics, Ra-226, Ra-228, Th-230, Th-228, Pa-231, Ac-227, I-125, I-129	100 dpm/100 cm^2	300 dpm/100 cm^2	20 dpm/100 cm^2
Th-nat, Th-232, Sr-90, Ra-223, Ra-224, U-232, I-126, I-131, I-133	1,000 dpm/100 cm^2	3,000 dpm/100 cm^2	200 dpm/100 cm^2
Beta-gamma emitters (nuclides with decay modes other than alpha emissions or spontaneous fission) except Sr-90 and other noted above.	5,000 dpm beta, gamma/100 cm^2	15,000 dpm beta-gamma/100 cm^2	1,000 dpm beta-gamma/100 cm^2

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28. (con't)

a. Where surface contamination by both alpha- and beta-gamma emitting nuclides exists, the limits established for alpha- and beta-gamma emitting nuclides should apply independently.
b. As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute observed by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.
c. Measurements of average contaminant should not be averaged over more than one square meter. For objects of less surface area, the average should be derived for each such object.
d. The maximum contamination level applies to an area of not more than 100 cm^2.
e. The amount of removable radioactive material per 100 cm^2 of surface area should be determined by wiping the area with dry filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with an appropriate instrument of know efficiency. When removable contamination on objects of less surface area is determined, the pertinent levels should be red proportionally and the entire surface should be wiped.
f. The average and maximum radiation levels associated with surface contamination resulting from beta-gamma emitters shall not exceed 0.2 mrad/hr at 1 cm and 1.0 mrad/hr at 1 cm, respectively, measured through not more than 7 milligrams per square centimeter of total absorber.

28. B. All conveyances as defined in R313-19-14 used for commercial transport of radioactive material to Envirocare will be decontaminated to the release limits set forth in the following:

TABLE 28 - B
REMOVABLE EXTERNAL RADIOACTIVE CONTAMINATION - WIPE LIMITS

Contaminant	Maximum permissible limits	Maximum permissible limits
	micro Ci/cm^2	dpm/cm^2
Beta-gamma emitting radionuclides; all radionuclides with half-lives less than ten days; natural uranium; natural thorium; uranium-235; uranium 238; thorium-232; thorium-228 and thorium-230 when contained in ores or physical concentrates.....	10^{-5}	22
All other alpha emitting radionuclides.....	10^{-6}	2.2

Each transport vehicle used for transporting radioactive materials as an exclusive use shipment... shall be surveyed with appropriate radiation detection instruments after each use. A vehicle shall not be returned to service until the average and maximum radiation levels associated with surface contamination resulting from beta-gamma emitters shall not exceed 0.2 mrad/hr at 1 cm and 1.0 mrad/hr at 1 cm, respectively, measured through not more than 7 milligrams per square centimeter of total absorber, and there is no significant removable (non-fixed) radioactive surface contamination as specified in the above Table 28-B.

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29. A quarterly report shall be prepared by the Corporate Radiation Safety Officer for the Project Manager and Company President evaluating employee exposures, effluent releases and environmental data to determine:

    A. If there are any upward trends in personnel exposures for identifiable categories of workers or types of operations or in effluent releases;

    B. If exposures and effluent might be lowered under the concept of maintaining exposures and effluent as low as reasonably achievable; and

    C. If equipment for exposure and effluent control is being properly used and maintained.

30. In accordance with R313-25-33, the licensee shall submit annual reports to the Division of Radiation Control by the end of the first calendar quarter of each year for the preceding year. The reports shall include:

    A. Specification of the quantity of each of the principal contaminants released to unrestricted areas in liquid and in airborne effluent during the preceding year.

    B. The results of the environmental monitoring program;

    C. A summary of licensee disposal unit survey and maintenance activities; and

    D. A summary of the volume, radioisotopes and their activities for materials disposed of.

31. Except as provided by this condition, the licensee shall maintain the results of sampling, analyses, surveys, and instrument calibration, reports on inspections and audits, employee training records as well as any related reviews, investigations and corrective actions, for five (5) years. The licensee shall maintain personnel exposure records in accordance with R313-15-401.

32. Operations shall be conducted by or under the supervision of Vernon E. Andrews, Corporate Radiation Safety Officer, or other individuals designated by the Corporate Radiation Safety Officer upon successful completion of the licensee's training program.

33. The licensee shall staff the operations of the facility in accordance with the revised organization chart submitted in letter dated July 16, 1993. In addition the licensee shall provide an updated organization chart within 10 days from any change.

34. The licensee staff shall meet the qualifications as described in Section 8.2 and shall have the responsibilities as described in Section 8.1.2 of the license amendment application dated September 20, 1990.

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35. The licensee shall not initiate disposal operations in newly excavated areas until the Division of Radiation Control has inspected and approved the cell/embankment liner.

36. a. The licensee shall provide a comprehensive set of drawings for the entire Clive site. The drawings shall: (1) locate all structures, utilities, fences, ponds, drainage features railroad tracks, roads, storage facilities, loading and off-loading facilities, disposal embankments, all environmental monitoring locations including instruments/devices, and any other appurtenants related to the operation, maintenance and closure of the disposal facility; (2) provide structural details including site elevation. A directory shall be included that identifies drawings by discrete number, title, date and revision. The drawings shall indicate as-built conditions as they existed no earlier that 30 days prior to the submittal. Drawings of finished construction shall be marked as "As-Built." Drawings showing approved future designs, shall be marked as "Record Drawings." All drawings shall be certified by a Utah Licensed Surveyor or Professional Engineer.

B. Within 30 days of the completion of any project that requires approval of the DRC, a set of "As-Built" drawings shall be submitted for review and inclusion into the comprehensive drawing set.

37. A. Notwithstanding the requirements of license conditions 38, 39, 41, 42 and 44, the licensee may accept for disposal, oversized debris in the form of the following filled containers:

1. B-25 boxes (96 cubic feet capacity)
2. B-12 boxes (48 cubic feet capacity)
3. Standard drums of at least 50 gallons
4. Over-pack drums
5. Other monolithic forms similar in size and shape to those listed in 37.&.1 through 37.A.4.

The contents of these containers shall have been initally formed as a single substantial monolithic unit, and the bulk density of the contents in the containers shall be lat least 70 pounds per cubic foot. Such oversized drbris shall be managed and disposed of in accordance with the currently approved "Oversized Debris Placement Plan" and the currently approved "Construction Quality Assurance/Quality Control Plan

B. For other non-conforming oversized debris, the licensee shall request authorization for disposal on a case by case basis.

38. For the purpose of this license, debris is defined as any radioactive waste for disposal other than soils. Compactible debris is defined as: (A) having a gradation that will pass through a four inch (4") grizzly and; (B) as having a density greater than seventy pounds per cubic foot dry weight in accordance with ASTM D-698. Contaminated materials, other than soil, not meeting either of these criteria are defined as noncompactible debris.

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39. The licensee shall place bulk radioactive materials in lifts with an uncompacted thickness not exceeding twelve inches (12").

40. In-place bulk radioactive waste shall be compacted at a moisture content up to three percent (3%) above optimum as determined by the Standard Proctor Method ASTM D-698.

41. The licensee shall compact each lift to not less than ninety percent (90%) of optimum density as determined by Standard Proctor Method ASTM D-698. Sampling points for compaction testing shall include locations immediately adjacent to debris when debris is included in the lift.

42. All debris shall be less than ten inches (10") in at least one (1) dimension, and no longer than eight feet (8') in any dimension.

43. The final twenty-four inches (24") of the radioactive waste material embankment, within the side slopes and the top surface, shall be free of debris. In addition, no debris (compactable or non-compactable) shall be placed within twenty-four inches (24") of the clay liner.

44. A lift or any portion of a lift shall be limited to less than ten percent (10%) by volume of debris and the debris shall be uniformly distributed throughout the lift. However, noncompactible debris in the form of concrete, stone or metal may be placed in the lift up to twenty-five percent (25%) by volume, of the total lift, uniformly distributed throughout, and the debris is placed to minimize void space in the lift.

45. The licensee shall excavate the disposal cell liner, consisting of native materials, to a depth of twenty-four inches (24") and replace it with clay in uncompacted lifts not to exceed nine inches (9"). Each lift shall be compacted to not less than ninety-five percent (95%) optimum density as determined by ASTM D-698 and field permeability as specified in the currently approved Engineering Drawings.

46. The licensee shall fulfill and maintain compliance with all conditions and shall meet all requirements in the currently approved Construction QA/QC Plan and currently approved Engineering Drawings.

47. The disposal cell liner and radon barrier shall be constructed with a moisture content of zero percent (0%) to plus five percent (+5%) of optimum moisture as determined by Standard Proctor Method ASTM D-698.

48. The licensee shall compact the radon barrier to not less than 95 percent of optimum density as determined by Standard Proctor Method ASTM D-698 and a field permeability as specified in the currently approved Engineering Drawings.

49. The licensee shall record, at the time of acceptance, the date and time of day that any lift or portion of a lift has been accepted by the licensee as finished in accordance with all specifications and license conditions.

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50. The licensee shall fulfill and maintain compliance with all conditions and requirements in the Waste Characterization Plan currently approved by the Division of Radiation Control.

51. The licensee shall fulfill and maintain compliance with all conditions and requirements in the LARW Waste Management Plan currently approved by the Division of Radiation Control.

52. The licensee shall utilize a manifest (Radiocative Waste Shipment and Disposal Record," Envirocare Form E-100) containing the information required in R-313-15-1006.

53. The licensee shall not accept radioactive waste for storage and disposal unless the licensee has received a complete "Radioactive Waste Shipment and Disposal Record" (Form #E-100) from the shipper.

54. The licensee shall maintain copies of complete manifests or equivalent documentation until the Division of Radiation Control authorizes their disposition.

55. The licensee shall immediately notify the Division of Radiation Control or the Division's on-site representative of any waste shipment where a possible violation of applicable regulations or license conditions has been found.

56. The licensee shall require anyone who transfers radioactive waste to the facility to comply with the requirements in R-313-5-1006.

57. The licensee shall acknowledge receipt of the waste within one (1) week of receipt by returning a signed copy of the manifest or equivalent documentation to the shipper. The shipper to be notified is the licensee who last possessed the waste and transferred the waste to the licensee. The returned copy of the manifest or equivalent documentation shall indicate any discrepancies between materials listed on the manifest and materials received.

58. The licensee shall notify the shipper (i.e., the generator, the collector, or processor) and the Division of Radiation Control when any shipment or part of a shipment has not arrived within 60 days after the advance manifest was received.

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59. The licensee shall maintain a record for each shipment of waste disposed of at the site. As a minimum, the record shall include:
    A. The date of disposal of the waste;
    B. The location of waste in the disposal site;
    C. The condition of the waste packages received;
    D. Any discrepancy between the waste listed on the shipment manifest or shipping papers and the waste received in the shipment.
    E. A description of any evidence of leaking or damaged packages or radiation or contamination in excess of applicable regulatory limits; and
    F. A description of any repackaging of wastes in any shipment.

60. In accordance with R313-25-31 the licensee shall maintain a Utah Division of Radiation Control Surety (Trust) Agreement adequate to fund the decommissioning and reclamation of the grounds, equipment and facilities. The surety shall be reviewed and updated annually and a report submitted to the Utah Division of Radiation Control within 60 days after June 1st of each year. The surety arrangement shall be updated as necessary to reflect decommissioning and reclamation costs.

61. Truck, railcar, and other equipment washdown (decontamination) facilities, including evaporation ponds, shall be controlled with fences or other approved barriers to prevent intrusion.

62. All burial embankments and waste storage areas, including immediately adjacent drainage structures, shall be controlled areas, surrounded by a six foot (6') high, chain link fence. All permanent fence shall be chain link, six feet (6') high, topped with three strand barbed wire, top tension wire and twisted selvedge.

63. The licensee shall fulfill and maintain compliance with all conditions and shall meet all compliance schedules stipulated in the Ground Water Discharge Permit, number UGW 450005, issued by the Executive Secretary of the Utah Water Quality Board.

64. One (1) year prior to the anticipated closure of the site, the licensee shall submit for approval a site decontamination and decommissioning plan. As part of this plan, the licensee shall demonstrate by measurements and/or modeling that concentrations of radioactive materials which may be released to the general environment, after site closure, will not result in an annual dose exceeding 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public.

UTAH DIVISION OF RADIATION CONTROL
RADIOACTIVE MATERIAL LICENSE
SUPPLEMENTARY SHEET

Amendment #20
License # UT 2300249

65. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Item 6, 7, and 8 of this license and conduct site operations in accordance with statements, representations, operating procedures, and disposal criteria, heretofore made by the licensee or his authorized representative in application for and subsequent to issuance of Utah Radioactive Material License No. UT 2300249 and amendments thereto.

6/28/95
Date

William J. Sinclair, Executive Secretary, Utah Radiation Control Board

shall be operated similar to the description for the Primary Shredder Tank system described above.

IV.A.3.g. Liquid Waste Holding Tank, 3,500-gallon capacity. This tank system will hold the wastes generated through washing, spraying, rinsing, decontamination, periodic building wash-down/cleanup and/or any accidental releases which may first be collected in the Wash/Sump Tank and then transferred into this Liquid Waste Holding Tank. Wastes removed from this tank system shall be transferred to an Evaporation Tank or may be taken to the Mixer Tank for treatment in accordance with Attachment IV-1, *Tank Management Plan*.

IV.A.3.h. Mixer Tank, capacity, 3,142-gallons. This tank system provides containment for a 1,000-gallon mixer which will be used to mix wastes, for stabilization and chemical treatment. Wastes may be mixed with water and appropriate treatment reagents in accordance with treatment formulas.

IV.A.3.h.i. The mixer tank system includes a mixer unit and its separate containment tank. For permit requirements such as placement or mixing of materials or treatment in the "mixer tank," it refers to the mixer unit of the mixer tank system. For permit requirements such as tightness and other tank or containment issues for the "mixer tank," it refers to the separate containment tank portion of the system.

IV.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

The Permittee may store and/or treat waste according to the following conditions:

IV.B.1 The Permittee may treat by evaporation only the waste codes in Condition III.B.1.a.

IV.B.2. The Permittee may treat the following mixed hazardous wastes in the tanks in the Mixed Waste Treatment Facility, subject to the terms of this Permit:

IV.B.2.a Codes with Treatment Standards based on Extract Concentrations:

D004 D005 D006 D007 D008 D009 D010 D011

F001 F002 F003 F004 F005 F006 F007 F008 F009 F011
F012 F019 F024 F028 F037 F038 F039

K050 K051 K052 K061 K069

P010 P011 P012 P013 P074 P099 P104 P114

U032 U144 U145 U146 U151 U204 U205

IV.B.2.b Codes with Treatment Standards based on Technology (CHOXD, CHRED, DEACT, NEUTR, STABL):

D001 D002 D003

P105 P113 P115 P119 P120 P122

U109 U115 U133 U134 U135 U214 U215 U216 U217

IV.B.2.c Codes with Treatment Standards based on Waste Concentration:

D003 D004 D005 D006 D007 D008 D009 D010 D011 D012
D013 D014 D015 D016 D017 D018 D019 D020 D021 D022
D023 D024 D025 D026 D027 D028 D029 D030 D031 D032
D033 D034 D035 D036 D037 D038 D039 D040 D041 D042
D043

F001 F002 F003 F004 F005 F006 F007 F008 F009 D010
F011 F012 F019 F024 F028 F037 F038 F039

K011 K013 K050 K051 K052 K061 K069

P004 P010 P011 P012 P013 P020 P021 P022 P024 P029
P030 P037 P039 P047 P048 P050 P051 P056 P059 P060
P071 P074 P077 P082 P089 P094 P097 P098 P099 P101
P104 P106 P113 P114 P115 P119 P120 P121 P123

F001 F002 F003 F004 F005 F006 F007 F008 F009 F011
F012 F019 F024 F028 F037 F038 F039

K050 K051 K052 K061 K069

P010 P011 P012 P013 P074 P099 P104 P114

U032 U144 U145 U146 U151 U204 U205

IV.B.2.b Codes with Treatment Standards based on Technology (CHOXD, CHRED, DEACT, NEUTR, STABL):

D001 D002 D003

P105 P113 P115 P119 P120 P122

U109 U115 U133 U134 U135 U214 U215 U216 U217

IV.B.2.c Codes with Treatment Standards based on Waste Concentration:

D003 D004 D005 D006 D007 D008 D009 D010 D011 D012
D013 D014 D015 D016 D017 D018 D019 D020 D021 D022
D023 D024 D025 D026 D027 D028 D029 D030 D031 D032
D033 D034 D035 D036 D037 D038 D039 D040 D041 D042
D043

F001 F002 F003 F004 F005 F006 F007 F008 F009 D010
F011 F012 F019 F024 F028 F037 F038 F039

K011 K013 K050 K051 K052 K061 K069

P004 P010 P011 P012 P013 P020 P021 P022 P024 P029
P030 P037 P039 P047 P048 P050 P051 P056 P059 P060
P071 P074 P077 P082 P089 P094 P097 P098 P099 P101
P104 P106 P113 P114 P115 P119 P120 P121 P123

MODULE III

STORAGE AND TREATMENT IN CONTAINERS

III.A. APPLICABILITY

This module shall regulate storage and treatment in containers at the Facility.

III.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.B.1. The Permittee may store the following mixed hazardous wastes in containers at the Facility, subject to the terms of this Permit:

III.B.1.a. D001 D002 D003 D004 D005 D006 D007 D008 D009 D010 D011 D012 D013 D014 D015 D016 D017 D018 D019 D020 D021 D022 D023 D024 D025 D026 D027 D028 D029 D030 D031 D032 D033 D034 D035 D036 D037 D038 D039 D040 D041 D042 D043

F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019 F024 F025 F028 F032 F034 F035 F037 F038 F039

K001 K002 K003 K004 K005 K006 K007 K008 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019 K020 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K043 K044 K045 K046 K047 K048 K049 K050 K051 K052 K060 K061 K062 K064 K065 K066 K069 K071 K073 K083 K084 K085 K086 K087 K088 K090 K091 K093 K094 K095 K096 K097 K098 K099 K100 K101 K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K131 K132 K136 K141 K142 K143 K144 K145 K147 K148 K149 K150 K151 K156 K157 K158 K159 K160 K161

P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018 P020 P021 P022 P023 P024 P026 P027 P028

MODULE III

STORAGE AND TREATMENT IN CONTAINERS

III.A. APPLICABILITY

This module shall regulate storage and treatment in containers at the Facility.

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III.B.1. The Permittee may store the following mixed hazardous wastes in containers at the Facility, subject to the terms of this Permit:

III.B.1.a. D001 D002 D003 D004 D005 D006 D007 D008 D009 D010 D011 D012 D013 D014 D015 D016 D017 D018 D019 D020 D021 D022 D023 D024 D025 D026 D027 D028 D029 D030 D031 D032 D033 D034 D035 D036 D037 D038 D039 D040 D041 D042 D043

F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019 F024 F025 F028 F032 F034 F035 F037 F038 F039

K001 K002 K003 K004 K005 K006 K007 K008 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019 K020 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K043 K044 K045 K046 K047 K048 K049 K050 K051 K052 K060 K061 K062 K064 K065 K066 K069 K071 K073 K083 K084 K085 K086 K087 K088 K090 K091 K093 K094 K095 K096 K097 K098 K099 K100 K101 K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K131 K132 K136 K141 K142 K143 K144 K145 K147 K148 K149 K150 K151 K156 K157 K158 K159 K160 K161

P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018 P020 P021 P022 P023 P024 P026 P027 P028

MODULE III

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III.B.1.a. D001 D002 D003 D004 D005 D006 D007 D008 D009 D010 D011 D012 D013 D014 D015 D016 D017 D018 D019 D020 D021 D022 D023 D024 D025 D026 D027 D028 D029 D030 D031 D032 D033 D034 D035 D036 D037 D038 D039 D040 D041 D042 D043

F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019 F024 F025 F028 F032 F034 F035 F037 F038 F039

K001 K002 K003 K004 K005 K006 K007 K008 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019 K020 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K043 K044 K045 K046 K047 K048 K049 K050 K051 K052 K060 K061 K062 K064 K065 K066 K069 K071 K073 K083 K084 K085 K086 K087 K088 K090 K091 K093 K094 K095 K096 K097 K098 K099 K100 K101 K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K131 K132 K136 K141 K142 K143 K144 K145 K147 K148 K149 K150 K151 K156 K157 K158 K159 K160 K161

P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018 P020 P021 P022 P023 P024 P026 P027 P028

MODULE III

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III.B.1.a. D001 D002 D003 D004 D005 D006 D007 D008 D009 D010 D011 D012 D013 D014 D015 D016 D017 D018 D019 D020 D021 D022 D023 D024 D025 D026 D027 D028 D029 D030 D031 D032 D033 D034 D035 D036 D037 D038 D039 D040 D041 D042 D043

F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019 F024 F025 F028 F032 F034 F035 F037 F038 F039

K001 K002 K003 K004 K005 K006 K007 K008 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019 K020 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K043 K044 K045 K046 K047 K048 K049 K050 K051 K052 K060 K061 K062 K064 K065 K066 K069 K071 K073 K083 K084 K085 K086 K087 K088 K090 K091 K093 K094 K095 K096 K097 K098 K099 K100 K101 K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K131 K132 K136 K141 K142 K143 K144 K145 K147 K148 K149 K150 K151 K156 K157 K158 K159 K160 K161

P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018 P020 P021 P022 P023 P024 P026 P027 P028