BEFORE THE UTAH SOLID AND HAZARDOUS WASTE CONTROL BOARD

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In the Matter of	:	STIPULATION AND
Westinghouse Electric Company, LLC	:	
Western Zirconium	:	CONSENT ORDER
Ogden, Utah	:	
UTD092024934	:	No. 0006018

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This STIPULATION AND CONSENT ORDER (Consent Order) is issued by the UTAH SOLID AND HAZARDOUS WASTE CONTROL BOARD (the "Board") pursuant to the Utah Solid and Hazardous Waste Act (the "Act"), §19-6-101, et. seq., Utah Code Annotated (1953, as amended).

STIPULATION

1. Western Zirconium, a division of Westinghouse Electric Company LLC, a Pennsylvania company, ("Western Zirconium") is authorized to conduct business in Utah. Western Zirconium is located in Weber County, Utah.

2. Western Zirconium is a "person" as defined in §19-1-103(4) of the Utah Code Annotated (1953 as amended) and is subject to all applicable provisions of the Act and R315 of the Utah Administrative Code (the Rules).

3. Western Zirconium manufactures zirconium products for use in the commercial nuclear fuel industry. From these operations, Western Zirconium generates hazardous waste as defined in the Act and the Rules.

4. Western Zirconium qualified for interim status as a facility that may store and treat hazardous waste but is currently operating as a large quantity generator.

5. A RCRA Facility Assessment (RFA) was prepared by Booz-Allen and Hamilton, consultants for the United States Environmental Protection Agency (USEPA) Region VIII

in September, 2001. The list of Solid Waste Management Units (SWMUs) and Areas of Contamination (AOCs) identified during the RFA at Western Zirconium is provided in Table 1.

Table 1 -- Western Zirconium SWMU/AOC List

SWMU Number	SWMU Name
SWMU 1	On-site Landfill #1 (Mountain Landfill
SWMU 2	On-site Landfill #2
SWMU 3	Ammonium Chloride Pond – A1
SWMU 4	Ammonium Chloride Pond – A2
SWMU 5	Emergency (Upset) Pond – U1
SWMU 6	Calcium Chloride Pond – C1
SWMU 7	Calcium Chloride Pond – C2
SWMU 8	Sodium Chloride Pond – S1
SWMU 9	Burn-out Oven
SWMU 10	South Bone Yard – Scrap from Separations Area
SWMU 11	Rockerlube Above Ground Storage Tank
SWMU 12	Rolloff Box Containing Extrusion Sludge
SWMU 13	1,500 Gallon Used Oil Above Ground Storage Tank
SWMU 14	Two 1,000 Gallon Used Oil Above Ground Tanks
SWMU 15	Four Portable Used Oil Tanks
SWMU 16	Chlorinator Residue Box
SWMU 17	Brick Lined Elementary Neutralization Unit
SWMU 18	Main Plant Elementary Neutralization Unit
SWMU 19	Box Containing Feed Makeup Filter Cake
SWMU 20	East Bone Yard – Scrap from Chlorination Area
SWMU 21	North Bone Yard – Scrap from Reductions Area
SWMU 22	West Bone Yard – Scrap from Fabrications Area
SWMU 23	Rolloff Box Containing Empty Drums
SWMU 24	Mobile Dumpsters
SWMU 25	Scrap Wood Dumpster
SWMU 26	Thermax Pile
SWMU 27	RCRA Permitted Drum Storage Area
SWMU 28	Magnesium Still Residue Drum Storage Area
SWMU 29	Crucible Lancing Area
SWMU 30	Dissolution Unit
SWMU 31	90-Day Hazardous Waste Storage Area
SWMU 32	Paint Shop
SWMU 33	Crucible Cooling Area

SWMU 34	Lime Piles
SWMU 35	Reclaimed Ammonium Chloride Ponds (2)
SWMU 36	Inactive Recirculation Pond
SWMU 37	Crucible Staging Area Prior to Burn-out Oven
SWMU 38	Retort Lancing Area
SWMU 39	Plant Chloride Drain
SWMU 40	Plant Ammonia Drain
SWMU 41	Plant Salt Drain
SWMU 42	Plant Upset Drain
SWMU 43	Burn Back Oven (Zirconium Fines Furnace)
SWMU 44	Stormwater Holding Area
SWMU 45	Egg Scrubber / Reboiler / Siltet Tanker
SWMU 46	Siltet Filter
SWMU 47	Film Developing Waste Storage in Radiography
SWMU 48	Containers of Zirconium Scrap
SWMU 49	Hammermill / Screen / Bounce out
SWMU 50	Smokehouse (Clean up Area)
SWMU 51	Satellite Accumulation Areas
SWMU 52	Radioactive Material / Residue Storage Building
SWMU 53	Oil Water Separator at the Drum Handling Facility
SWMU 54	MIBK Waste Storage Tank and Regeneration Still
SWMU 55	Salt Can Break Out in Distillation
SWMU 56	Magnesium Dig Out Area
SWMU 57	Crucible Soaking Area with Sump
SWMU 58	Pad 52 Upset Tanks Location
AOC Number	**AOC Name**
AOC 1	Acid Release Site
AOC 2	MIBK Release Site
AOC 3	Ammonia Release Site
AOC 4	Spills in Separations Area
AOC 5	Spills in Chlorination Area
AOC 6	Spills in Technical Services Area
AOC 7	Spills in Shipping and Receiving Area
AOC 8	Spills in Roadway Leading To and From Facility
AOC 9	Spills in Round Products Area
AOC 10	Spills in Flat Products Area
AOC 11	Spills in Reductions Area
AOC 12	Spill Area East of Jacuzzi
AOC 13	Lowlands East of Plant and West of Ponds
AOC 14	Discolored Soil West of Building 109

6. Western Zirconium will undertake investigation and corrective action (if necessary) for the SWMUs/AOCs listed in Table 1 according to the terms of this Consent Order. Western Zirconium will also address, in the same manner, any newly identified SWMUs discovered at the Western Zirconium facility after the effective date of this Consent Order.

7. Simultaneously with its entry into this Consent Order, Western Zirconium is entering into a Settlement Agreement (Docket Number UGW99-03) with the Utah Water Quality Board (the "Water Quality Board") to investigate and perform corrective action (if necessary) for SWMUs 3, 4, 5, 6, 7, 8, 34, 35, 36 and 44 (the "Pond SWMUs"). Western Zirconium also holds a Radioactive Materials License (No. UT 2900176) from the Utah Radiation Control Board (the "Radiation Control Board"), which requires Western Zirconium to monitor ground water and consider decommissioning options for the Pond SWMUs. Given this overlap in jurisdiction over the Pond SWMUs, the Board agrees that, with respect to the Pond SWMUs, it will coordinate review and approval of all plans and reports submitted under this Consent Order with the Water Quality Board and the Radiation Control Board. The Board also agrees that the Pond SWMUs and other SWMUs/AOCs may be subject to different time frames, as specified in Tables 2A and 2B.

8. Any SWMU(s) documented as having received hazardous waste after November 19, 1980 will be subject to all applicable requirements of R315-8 of the Rules.

9. Western Zirconium and the Board now wish to set forth an investigation and corrective action procedure for the SWMUs/AOCs at the facility.

ORDER

Based on the foregoing Stipulations, the Board hereby orders Western Zirconium as follows:

RCRA Facility Investigation of SWMUs/AOCs

1. Western Zirconium shall conduct a RCRA Facility Investigation (RFI) to determine if hazardous waste or hazardous constituents have been released from the SWMUs/AOCs listed in Table 1 and if so, to define the nature and extent of those releases. If necessary, the RFI shall be followed by the Corrective Measures Study (CMS) and the Corrective Measures Implementation (CMI) steps, which include the reports and plans outlined in this Consent Order.

2. Western Zirconium shall submit the submittals listed in Tables 2A and 2B to the Executive Secretary of the Utah Solid and Hazardous Waste Control Board (Executive Secretary) for review and approval. These submittals shall be in accordance with the time frames specified in Tables 2A and 2B, as applicable. The workplan(s) shall detail activities and objectives, and shall be based on the following EPA guidance documents: *RFI Guidance Document, Interim Final* (EPA 530/SW89-031/May 1989 [4 Volumes]), *RCRA Corrective Measures Study* (EPA 520/R94-004/May 1994). Applicable ASTM standards may also be considered. The Executive Secretary shall approve, disapprove, or modify submitted documents. If the Executive Secretary disapproves a submitted document that requires his approval, the Executive Secretary shall provide Western Zirconium with written comments detailing the exact reasons for the disapprovals. Western Zirconium shall revise the disapproved document and resubmit it within 45 days after DSHW comments are issued, as specified in Tables 2A and 2B. Should a modification to a submitted document be desired by the Executive Secretary, Western Zirconium shall be notified in writing of the proposed change and have the opportunity to review and comment on the desired change prior to the Executive Secretary's modification of the document. If the Executive Secretary modifies a submitted document, the modified document shall be the approved document. Changes to an approved document by Western Zirconium (including changes made in the field) must be approved by the Executive Secretary. Western Zirconium shall not proceed with the work related to any Western Zirconium requested change unless and until approval has been granted by the Executive Secretary. Changes made shall be documented by the facility in the next report submittal.

TABLE 2A -- Schedule of Compliance For Pond SWMUs[1]

Submittal	Due Date (calendar days)
RFI Phase I Workplan	Within 90 days of the effective date of this Consent Order.
RFI Phase I Report and a Phase II Workplan (if applicable)	In accordance with the schedule in the approved RFI Phase I Workplan.
RFI Phase II Final Report	In accordance with the schedule in the approved RFI Phase II Workplan.

[1] The "Pond SWMUs" consist of SWMUs 3, 4, 5, 6, 7, 8, 34, 35, 36 and 44.

No Further Action (NFA) Petition	As warranted in accordance with Paragraph 10.
Risk Assessment Report (RAR)	With the RFI Phase I Report and/or the RFI Phase II Final Report (as applicable).
Corrective Measures Study (CMS) Workplan	Within 60 days of approval of the RFI Phase I Report or Phase II Final Report (as applicable) if closing by removal to non-detect or background.
Corrective Measures Study, w/o a Site Management Plan (SMP)	Within 60 days of approval of the CMS Workplan No later than 1/1/04.
Site Management Plan, including Corrective Measures Study (if applicable)	Within 60 days of approval of the Risk Assessment Report if a RAR is required. No later than 1/1/04.
Cleanup/Management Report (CMR)	In accordance with schedule set in approved Site Management Plan.
Certification of Completion (CC)	Within 60 days of the completion of all activities documented in the Cleanup/Management Report.
Corrective Measures Implementation (CMI) report	Within 60 days of completion of all activities conducted during CMI.
Satisfaction of Environmental Indicators[2]	No later than 8/31/05.
Revised Documents	Within 45 days after DSHW comments are issued.

[2] "Satisfaction of Environmental Indicators" means to have: (1) current human exposures under control; and (2) migration of contaminated ground water under control.

TABLE 2B -- Schedule of Compliance
For Non-Pond SWMUs/AOCs[3]

Submittal	Due Date (calendar days)
RFI Phase I Workplan	Within 90 days of the effective date of this Consent Order.
RFI Phase I Report and a Phase II Workplan (if applicable)	In accordance with the schedule in the approved RFI Phase I Workplan.
RFI Phase II Final Report	In accordance with the schedule in the approved RFI Phase II Workplan.
No Further Action (NFA) Petition	As warranted in accordance with Paragraph 10.
Risk Assessment Report (RAR)	With the RFI Phase I Report and/or the RFI Phase II Final Report (as applicable).
Corrective Measures Study (CMS) Workplan	Within 60 days of approval of the RFI Phase I Report or Phase II Final Report (as applicable) if closing by removal to non-detect or background.
Corrective Measures Study, w/o a Site Management Plan (SMP)	Within 60 days of approval of the CMS Workplan. No later than 1/1/04.
Site Management Plan, including Corrective Measures Study (if applicable)	Within 60 days of approval of the Risk Assessment Report if a RAR is required. No later than 1/1/04.
Cleanup/Management Report (CMR)	In accordance with schedule set in approved Site Management Plan.
Certification of Completion (CC)	Within 60 days of the completion of all activities documented in the Cleanup/Management Report.

[3] "Non-Pond SWMUs/AOCs" consist of all SWMUs/AOCs other than "Pond SWMUs."

Corrective Measures Implementation (CMI) report	Within 60 days of completion of all activities conducted during CMI.
Satisfaction of Environmental Indicators[4]	No later than 8/31/05
SWMU Notification	Within 30 days of identification of newly identified SWMU.
SWMU Assessment Plan	Within 90 days of identification of newly identified SWMU.
SWMU Assessment Report	Within 180 days of approval of SWMU Assessment Plan.
Revised Documents	Within 45 days after DSHW comments are issued.

4. Western Zirconium shall submit an RFI Phase I Workplan for the Pond SWMUs and an RFI Phase I Workplan for the non-Pond SWMUs/AOCs, as specified in Tables 2A and 2B. The first objective of each RFI is to determine if hazardous waste or hazardous constituents have been released to the environment at each SWMU/AOC. If it is determined that a release has occurred, the second objective of the RFI is to define the nature and extent of the contamination. The workplans shall detail the procedures and activities that will be followed to accomplish these objectives. Upon approval by the Executive Secretary, Western Zirconium shall perform the work specified in each approved work plan. Each RFI Phase I Workplan shall, at a minimum, contain the following plans and information:

   A. Objectives
      1) RFI Phase I Workplan Objectives (release assessment and definition of nature and extent of contamination)
      2) Rationale for the approach proposed in the RFI Phase I Workplan
   B. Description of Current Conditions
      1) Facility Background

[4] "Satisfaction of Environmental Indicators" means to have: (1) current human exposures under control; and (2) migration of contaminated ground water under control.

2) History and Description of each SWMU/AOC in Table 1 (as applicable). (Provide such information as unit uses, dates of operation, types/quantities of all wastes/products handled there and information on known or suspected releases.)
3) Summary of Previous Field Work (e.g. remediation at the time of occurrence, subsequent interim measures, other studies conducted)

C. Facility Investigation Plan
1) Description of Environmental Setting
2) Field Investigation Plan
a) Sample Locations Map
b) Number and Type of Samples
c) Sample Collection Procedures
d) Field Measurements
3) QA/QC Procedures
4) Sample Analysis: Methods, Laboratories
5) Data Management Plan
6) Workplan Schedule
7) Health and Safety Plan
8) Public Involvement Plan
9) Plan to Identify Potential Receptors
10) Plan to Establish Background Levels of Constituents (if applicable)

5. Western Zirconium shall submit an RFI Phase I Report for the Pond SWMUs and an RFI Phase I Report for the non-Pond SWMUs/AOCs, as specified in Tables 2A and 2B. Each RFI Phase I Report shall describe activities conducted to fulfill the requirements of the applicable approved RFI Phase I Workplan and shall be of adequate technical quality to evaluate whether the objectives of the RFI have been met at each SWMU/AOC. If all the objectives have been fully met at each SWMU/AOC, then the RFI Phase I Report shall become a final report and an RFI Phase II is not required. Each RFI Phase I Report shall, at a minimum, contain the following information:

A. Overview
1) Confirmation of Adherence to Workplan (document deviations)
2) Sample Locations, Numbers and Descriptions
3) Well Logs (if applicable)
4) Summary of Findings

B. Data Analysis and Determination of Further Action(s) required:
1) Analysis of All Findings, Data and Results (including a discussion of data quality)
2) Characterization of Type and Extent of Hazardous Waste or Hazardous Constituent Contamination at Each SWMU/AOC
a) Characterization of the Environmental Setting
b) Source Characterization

c) Contamination Characterization (extent of release of hazardous waste or hazardous constituents)

3) Recommendation for Further Action (e.g. RFI Phase II Workplan, Interim Measure, no further action, corrective action, etc.)

4) Rationale and Objectives of Recommended Action

6. Western Zirconium shall submit an RFI Phase II Workplan with the RFI Phase I Report if Phase I activities have not fully defined the nature and extent of contamination at certain SWMUs/AOCs. The Phase II Workplan shall describe how the nature and extent of hazardous waste or hazardous constituent contamination will be determined at each of those SWMUs/AOCs. Upon approval of the Phase II Workplan by the Executive Secretary, Western Zirconium shall perform the work specified in the approved workplan. Any Phase II Workplan shall, at a minimum, contain the following plans and information:

A. Purpose and Objectives of the RFI Phase II

B. Phase II Investigation Plan

1) Rationale for Additional Sampling

2) Additional Sampling Plan (sample locations map, media to be sampled, number of samples to be taken, etc.)

3) Sample Collection Procedures*

4) Field Measurements*

5) QA/QC Procedures*

6) Sample Analysis: Methods, Laboratories*

C. Data Management Plan*

D. Phase II Workplan Schedule

E. Plan to Establish Background Levels of Constituents (if applicable)

* These plans or information only need to be submitted if they are different from the applicable RFI Phase I Workplan.

7. Western Zirconium shall submit an RFI Phase II Final Report as specified in Table 2A or 2B, if a Phase II Workplan is required. This report shall describe activities conducted to demonstrate adherence to the approved Phase II Workplan and include an analysis and summary of all Phase II facility investigations and their results. The report shall contain recommendations for a course of action at each SWMU/AOC (e.g., interim measure, no further action, corrective action). The report shall be of adequate technical quality to support the recommended course(s) of action.

8. Western Zirconium shall submit the plans and reports identified in Tables 2A and 2B as warranted by the applicable RFI Phase I Workplan Report, RFI Phase II Final Report (as

applicable) and Western Zirconium's recommended course(s) of action (e.g. NFA petition, RAR, SMP, CMS, CMI report, CMR, CC).

9. Closure of each SWMU/AOC shall be considered complete upon written approval by the Executive Secretary of: A) a petition for no further action with no further management required, B) a risk-based closure with or without further management being required, or C) a closure by removal to an approved standard. Each SWMU/AOC shall be evaluated individually for a course of action. Combinations of actions may be used to achieve the final remedy.

A) Determination of No Further Action

10. Based on the results presented in the applicable RFI Phase I Report or RFI Phase II Final Report (as applicable), Western Zirconium may submit a NFA petition to the Executive Secretary. The petition(s) shall demonstrate that there has not been a release of hazardous waste or hazardous constituents from the SWMU(s)/AOC(s) at the facility, the release(s) does not pose an unacceptable risk to human health or the environment, or the release(s) has been addressed in a closure by removal under paragraph 16. The demonstration shall show that at least one of the following standards has been met: 1) constituent levels are "non-detect" using preapproved analytical methods, 2) constituent levels are at or below preapproved background values, or 3) the level of risk to human health is below 1×10^{-6} for carcinogens and a Hazard Index of "less than one" for non-carcinogens based on an approved risk assessment conducted in accordance with R315-101-5.2(b)(1) of the Rules. For SWMUs/AOCs where Total Petroleum Hydrocarbons (TPH) are a potential threat to human health or the environment, a determination of no further action shall be based on the *Corrective Action Clean-Up Standards Policy - UST and CERCLA Sites* (Utah Administrative Code R311-211), and the Risk-Based Corrective Action (RBCA) process guidelines developed by the Utah Division of Environmental Response and Remediation. The Executive Secretary shall review the petition and all other relevant information and approve or deny the petition. If the Executive Secretary determines that one of the above NFA standards has been met, he shall grant the requested petition and no further management of these SWMUs/AOCs is required by Western Zirconium. If the Executive Secretary denies the petition, he shall provide Western Zirconium with a written notice outlining the basis for the denial.

B) Risk Based Closure

11. Western Zirconium may address closure by assessing the risk to human health and the environment associated with any contamination that it proposes to leave in place. The applicable procedures of R315-101 shall be followed while conducting this risk assessment. The information generated in accordance with R315-101-5 of the Rules shall be presented to the Executive Secretary in a Risk Assessment Report (RAR) for review

and approval. The risk assessment for human health shall be conducted using one or both standard exposure scenarios (residential and actual) as needed to determine site risk management options. Risk to human health and the environment associated with TPH contamination may be assessed as described in paragraph 10 above. If Western Zirconium chooses to utilize a risk assessment, then it must submit a Site Management Plan (SMP) as described in R315-101-6.

12. In accordance with R315-101-6, if the Executive Secretary agrees through a review of the assessment that the risk to human health present at the site is less than 1×10^{-6} for carcinogens and the hazard index is less than one for non-carcinogens, using the residential exposure scenario, then Western Zirconium may submit a NFA petition in its SMP.

13. In accordance with R315-101-6, if the Executive Secretary agrees through a review of the assessment that the risk to human health present at the site is greater than 1×10^{-6} for carcinogens or the hazard index is greater than one for non-carcinogens, using the residential exposure scenario, then Western Zirconium is not eligible for an NFA closure and must submit an SMP that includes appropriate management activities (such as monitoring, deed notations, site security, or post-closure care) or an SMP that includes a CMS that contains appropriate corrective action.

14. In accordance with R315-101-6, if the Executive Secretary agrees through a review of the assessment that the risk to human health present at the site is less than 1×10^{-4} for carcinogens using the actual exposure scenario, but greater than 1×10^{-6} using the residential exposure scenario and the hazard index is less than one for non-carcinogens using both scenarios, then Western Zirconium must submit an SMP that contains appropriate management activities (such as monitoring, deed notations, site security, or post-closure care), but the SMP is not required to include a CMS that contains procedures for corrective action.

15. In accordance with R315-101-6, if the Executive Secretary agrees through a review of the assessment that the risk to human health present at the site is greater than 1×10^{-4} for carcinogens or the hazard index is greater than one for non-carcinogens, using the actual exposure scenario, then corrective action is required and Western Zirconium must submit an SMP that includes a CMS as specified in paragraph 19.

C) Closure by Removal

16. Western Zirconium may choose to close individual SWMUs/AOCs by removing hazardous waste and hazardous constituents to: 1) non-detectable levels using preapproved analytical methods, 2) preapproved site-established background levels or 3) a preapproved risk-based (based on R315-101) level. Western Zirconium may close by

removal either by submitting a CMS as specified in paragraph 19 or, in appropriate circumstances, through an interim measure under paragraph 23.

Site Management Plan

17. Western Zirconium shall submit an SMP for any SWMU(s)/AOC(s) as determined necessary under paragraphs 11 through 15. The SMP(s) shall follow R315-101-6 of the Rules. The use of any institutional controls at the site may be reevaluated at a future date upon request by either party.

Corrective Measures Study

18. Western Zirconium shall submit a CMS for any SWMU(s)/AOC(s) as determined necessary under paragraphs 13 through 15. If a CMS is necessary, Western Zirconium shall first submit and obtain approval of a CMS Workplan that identifies target cleanup objectives, as specified in Table 2A or 2B.

19. The purpose of a CMS is to develop and evaluate corrective action alternatives and to outline one or more alternative corrective action(s) that satisfy the target clean up objectives. The detail and format of the CMS for any particular SWMU(s)/AOC(s) may vary considerably depending on the site-specific circumstances but, at a minimum, shall include:

    A. Proposed remediation goals or target cleanup objectives;
    B. The corrective measures proposed to satisfy cleanup objectives;
    C. Data Collection Quality Assurance / Quality Control Plan;
    D. Data Management Plan; and
    E. A schedule for Corrective Measures Implementation (CMI).

20. Upon approval of a CMS for any SWMU(s)/AOC(s), Western Zirconium shall proceed with the corrective action(s) according to the schedule for CMI approved within the applicable CMS. Western Zirconium shall be responsible for furnishing or retaining all personnel, materials and services needed during CMI.

21. With respect to any SWMUs/AOCs for which Western Zirconium submits a CMS, Western Zirconium shall submit a CMI final report that demonstrates adherence to the approved CMS and includes an analysis and summary of all activities conducted during CMI. This report shall detail the results achieved and discuss the status of current conditions at the end of CMI.

22. With respect to any SWMUs/AOCs for which a closure based on the risk assessment provisions of R315-101 is conducted, Western Zirconium shall submit the

Cleanup/Management Report (CMR) and Certification of Completion (CC) required by R315-101-8, instead of a CMI report.

Interim Measures

23. Western Zirconium or the Executive Secretary may at any time during the term of this Consent Order identify and propose to the other party an "interim measure." Interim measures are actions that control, minimize, or eliminate releases or potential releases that pose actual or potential threats to human health or the environment and are, to the extent practicable, consistent with final remedies. If the parties agree on the appropriateness of such measures, Western Zirconium shall implement them as required by the Executive Secretary. Disagreement shall be subject to Resolution of Disputes. The following factors shall, at a minimum, be considered when developing an interim measure:

    A. Time required to develop and implement SWMU/AOC closure;
    B. Actual or potential exposure of human or environmental receptors;
    C. Actual or potential contamination of drinking water supplies or sensitive ecosystems;
    D. The potential for further environmental degradation without interim measures;
    E. Presence and concentration of hazardous waste or hazardous constituents in the soil that have the potential to migrate to groundwater or surface water;
    F. Weather conditions that may promote the spread of contamination;
    G. Risks of fire, explosion, or accident; and
    H. Other situations which may pose a threat to human health or the environment.

Notification Requirements of Newly Identified SWMUs

24. When information becomes available, Western Zirconium shall notify the Executive Secretary in writing of any SWMU(s) not identified by this Consent Order. Western Zirconium shall submit written notification as specified in Table 2B. The notification shall include the location of the new SWMU(s) identified on a map, the dates of its operation, and all available information regarding wastes identified or suspected.

25. For all newly identified SWMUs, Western Zirconium shall submit a SWMU Assessment Plan as specified in Table 2B. At a minimum, the SWMU Assessment Plan shall contain a scope of work equivalent to that found in the required RFI Workplan in Paragraph 4 above.

26. Western Zirconium shall submit a SWMU Assessment Report as specified in Table 2B. The report shall describe activities conducted to fulfill the requirements of the approved SWMU Assessment Plan and shall be of adequate technical quality to support the

recommended course of action. At a minimum, the scope of the report shall be equivalent to that found in the required RFI Phase I Report in Paragraph 5 above.

27. The SWMU Assessment Plan shall become an addendum to the RFI Phase I Workplan. The SWMU Assessment Report shall become an addendum to the RFI Phase I Report.

Confidential Information

28. Any data or information provided under this Order which is claimed by Western Zirconium to contain confidential business information or which contains descriptions of a proprietary process, procedure or product or trade secret must be submitted as confidential information in accordance with the procedures set forth in Utah Code Annotated, Title 63, Chapter 2, Government Records Access and Management Act (GRAMA), and the Environmental Quality Code, 19-1-306.

Reservation of Rights and Privileges

29. Nothing contained herein shall be deemed to constitute a waiver by the State of its right to initiate enforcement action, including civil penalties, against Western Zirconium in the event of future non-compliance with this Consent Order, the Act, or the Rules, nor shall the State be precluded in any way from taking appropriate action to abate an imminent endangerment to public health or the environment should such a situation arise at Western Zirconium's facility.

Exchange of Data

30. The Executive Secretary, Western Zirconium, and its representatives shall cooperate in the reporting and exchange of data developed pursuant to this Consent Order. Results of all sampling, analyses, and other relevant data generated by the parties, agents or contractors, shall be exchanged within the time frame outlined in the approved Workplan. If requested, copies of the raw data, field notes, and laboratory data will be provided.

Resolution of Disputes

31. This Consent Order expressly contemplates submission of plans, proposals and reports. The Executive Secretary shall determine the adequacy and applicability of such submissions consistent with the Act, the Rules, and this Consent Order. If agreement by Western Zirconium and the Executive Secretary cannot be reached regarding any plan, proposal, report, or billing under this Consent Order, or regarding the appropriateness of any interim measure under paragraph 23, Western Zirconium or the Executive Secretary may commence a proceeding under the Administrative Procedures Act and applicable regulations of the Board to resolve any disputed decision or submission. Western

Zirconium shall proceed with any undisputed proposed activity or requirement in accordance with approved schedules. Any disputed proposed activity shall be automatically excepted from such approved schedule and upon issuance of a final adjudication by the Board, the schedule shall be adjusted by agreement of the parties.

32. Final decisions of the Executive Secretary are subject to review pursuant to R315-12 of the Rules and the Utah Administrative Procedures Act, Chapter 46(b) of Title 63, Utah Code Annotated. The final decision of the Board in any adjudication proceeding shall be subject to judicial review under applicable state law.

Site Access and Enforcement

33. Western Zirconium shall provide access to the property upon request by the Executive Secretary or his authorized representatives for the purposes of monitoring, photographing, sampling, and observing activities conducted under this Consent Order. Nothing in this paragraph shall, nor is intended to, waive the Executive Secretary's rights, or access to the property under the Act.

34. All activities conducted by Western Zirconium under this Consent Order shall be conducted in accordance with applicable provisions of the Act and the Rules enacted thereunder. Nothing contained herein shall limit the Executive Secretary's ability to enforce the provisions of the Act and the Rules with respect to work performed under this Consent Order or any Approved Plan.

35. Western Zirconium shall provide a minimum of seven (7) working days advance notification to the Executive Secretary prior to commencement of any field work such as sampling and drilling activity, interim measures, removal action, construction, or any combination of these activities to be conducted under this Consent Order. The notice can be either oral or written.

36. Upon reasonable advance request by an authorized representative of the Executive Secretary, Western Zirconium shall allow the representative to receive split samples of any samples collected by Western Zirconium pursuant to this Consent Order. Upon reasonable advance request by an authorized representative of Western Zirconium, the Executive Secretary shall allow Western Zirconium to receive split samples of any samples collected by the Executive Secretary pursuant to the oversight of this Consent Order.

Force Majeure

37. Upon the occurrence of an unanticipated event which could not have been prevented or avoided by the exercise of due care or foresight, and which causes or may cause delay in achievement of any requirement under this Consent Order, Western Zirconium shall notify the Executive Secretary in writing within twenty (20) days after the day Western Zirconium knows or reasonably should have known of the event, describing in detail the anticipated length of the delay, the anticipated consequences of the delay, the measures taken and to be taken by Western Zirconium to prevent or minimize the delay and the timetable by which such measures will be implemented. If the parties agree that the delay or anticipated delay in achievement of any requirements of this Consent Order has been or will be caused by circumstances beyond the control of Western Zirconium or its agents or contractors, the parties shall stipulate to an extension of the particular compliance requirement affected by a period not to exceed the delay caused by such circumstances. In the event that Western Zirconium and the Executive Secretary cannot agree as to the length or right of extension, then either party shall submit the matter to the Board for resolution under the procedures outlined in Paragraph 31. The burden of proving that any delay is caused by circumstances beyond the control of Western Zirconium shall rest with Western Zirconium.

Liability

38. The State, its employees, the Executive Secretary or any member of the Board shall not be liable for any injuries or damages to persons, property, or natural resources which result from acts or omissions by Western Zirconium, its agents or contractors in carrying out activities pursuant to this Consent Order. The Board and its representatives shall comply with all reasonable requirements established by Western Zirconium for the protection of health, safety, and security while on Western Zirconium's property or property under its control. The health and safety of Western Zirconium's personnel, agents, and contractors shall be the sole responsibility of Western Zirconium.

Relation to Other Laws/Permit Requirements

39. This Consent Order shall not be construed as a permit, nor does it relieve Western Zirconium of any liabilities or obligations, including permitting requirements, it might otherwise have under applicable state or federal statutes or regulations. However, the State shall not impose requirements on Western Zirconium through this Consent Order that are inconsistent with any of Western Zirconium's obligations, including permitting requirements, it might otherwise have under applicable state or federal statutes or regulations.

Duration of Consent Order

40. At such time that the Executive Secretary has determined that Western Zirconium has fulfilled all requirements and obligations under provisions outlined in approved plans and reports associated with this Consent Order and all DSHW invoices have been paid in full, Western Zirconium shall upon written request be entitled to receive a written notice from the Executive Secretary that all provisions of this Consent Order have been satisfied, and any deviations from the requirements and obligations outlined herein are documented and are found to be acceptable to the Executive Secretary.

Modification

41. This Consent Order may not be amended, supplemented, or modified except in writing, signed and executed by all parties hereto. This Consent Order shall be governed by and construed in accordance with the laws of the State of Utah.

42. Western Zirconium may submit a request for modifications of the compliance dates that are not governed by the Risk-Based Closure Standard, R315-101, to the Executive Secretary for approval. If the Executive Secretary approves the compliance date modifications, Table 2A or 2B of this Consent Order, as applicable, shall be modified as necessary to incorporate the modified compliance dates as approved.

Parties Bound

43. This Consent Order shall be binding on the parties, their respective successors and assigns, all persons or entities acting under, through or for them.

Reimbursement for Oversight

44. Western Zirconium shall reimburse the Executive Secretary for all reasonable costs related to overseeing compliance with this Consent Order and in reviewing documents submitted to the DSHW, including DSHW contractor review for overseeing Western Zirconium's compliance of this Consent Order. The Executive Secretary shall submit periodic invoices to Western Zirconium identifying the oversight and review costs including, but not limited to, work performed by DSHW employees, costs of public notice, and costs of contractors performing work for the DSHW pursuant to this Consent Order in accordance with the fee collection schedule in the Utah Appropriations Act. The invoices will provide a detailed description of the work performed together with appropriate back-up documentation, including copies of invoices from contractors for work done relating to this Consent Order. If Western Zirconium requires additional information, it will be provided upon request. Within thirty (30) calendar days of receipt of each such invoice, Western Zirconium shall remit a check to the DSHW for the full amount of non-disputed costs. Checks should be made payable to "Utah Department of Environmental Quality" and payment mailed to Dennis R. Downs, Executive Secretary,

Utah Solid and Hazardous Waste Control Board, P.O. Box 144880, Salt Lake City, Utah 84114-4880.

45. The Executive Secretary may employ an independent contractor to review any plan or proposal submitted in accordance with this Consent Order. Western Zirconium may request that the Executive Secretary have the proposal or plan reviewed by an environmental contractor under contract with the DSHW. All work performed by such contractor shall be at Western Zirconium's expense, and Western Zirconium will be billed for it pursuant to Paragraph 44.

Effective Date

46. This Consent Order shall become effective upon execution by Western Zirconium and the Executive Secretary of the Board.

Dated this 23 day of January, 2002

Western Zirconium

By: Rick Propst

Title: Plant Manager

THE UTAH SOLID AND HAZARDOUS WASTE CONTROL BOARD

By: Dennis R. Downs

Title: Executive Secretary