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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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January 29, 1999

Mr. Don W. Edwards
Environmental Safety and Regulatory Manager
BNFL, Inc. - TWRS Privatization
2940 George Washington Way
Richland, WA 99352



Dear Mr. Edwards:

Thank you for giving the Washington State Department of Ecology (Ecology) the opportunity to review pre-application drafts of chapters 6, 7, and 8 of the dangerous waste permit application for the Tank Waste Remediation System-Privatization (TWRS-P) facility. As requested, Ecology's review was focused on identification of major omissions or areas where a change in direction would be needed to comply with applicable dangerous waste management requirements.

In general, the pre-application draft chapters on security, preparedness and prevention, contingency planning, emergency response, and training that you submitted seem to raise the right issues and begin to address them in an appropriate manner. There are two areas where additional work is needed to make your permit application complete and in compliance with applicable dangerous waste regulations. First, the amount of detail about the facility and facility operations will need to be significantly increased. Second, issues associated with implementation of the contingency plan will need to be clarified.

Although Ecology's review was focused on identification of major omissions and issues, we have also enclosed a number of additional comments. Many of these additional comments highlight elements of the pre-application draft that prompted the more general concerns about level of detail and implementation of the contingency plan. Please note that Ecology did not make any effort to provide exhaustive, detailed comments, so undoubtedly, review of your actual permit application will raise new issues.

Level of Detail in Permit Application

The permit application should include more facility-specific detail. Facility-specific detail is needed for Ecology to fully assess compliance with applicable requirements and ensure your permit contains all conditions necessary for protection of human health and the environment.

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For example, in chapter 6, page 6-13, lines 28 and 29, the statement that facility personnel will have immediate access to a communication system should be expanded to indicate what type of immediate access (e.g., direct or through voice or visual contact with another employee) and the type of communication system (e.g., telephone, radio). Similarly, chapter 6, page 6-16, lines 2-4, the statement about "special ventilation systems" should be expanded to briefly describe the systems and their operation (or reference the portion of the permit application that describes the systems and their operations) so the ability of these systems to capture and control releases of dangerous waste and dangerous constituents can be evaluated.

In particular, the inspection schedules and contingency plan need significant additional detail. The inspection schedules should be expanded to specifically identify the equipment and systems that will be inspected. Accompanying narrative should confirm that the inspection schedule covers all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect, or respond to hazards to public health or the environment. It should also describe how the frequency of inspections has been tailored to the rate of possible deterioration of equipment and the probability of an environment or human health incident. The level of detail in the contingency plan is discussed below. This is not meant to signal that the types of systems contemplated by the pre-application draft would likely not comply with applicable requirements, only that, in many instances, the level of detail in the pre-application draft is not adequate to fully assess compliance.

In addition to including more facility-specific detail, your permit application should explicitly address all aspects of applicable regulations. For example, Washington Administrative Code (WAC) 173-303-340(1)(d) requires that water for fire control be at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems. However, the volume and pressure of the water supply are not addressed in section 6.3.1.4. Although not required by the regulations, you may find it helpful to note the citations from the Dangerous Waste Regulations (WAC, Chapter 173-303) or the Code of Federal Regulations (CFR), as appropriate, that correspond to various sections of your permit application. This may help you ensure that all applicable regulations are explicitly addressed. For example, chapter 6 of your pre-application draft seems to address, at least, portions of WAC 173-303-145, -310, -320, -340, -350, -360, -380, -390, -395, -630, and -645 and the air emission requirements of 40 CFR, Part 264, Subpart AA (which are included in state regulations at WAC 173-303-690). A more deliberate approach to setting out the portions of the regulations that are addressed by specific sections of the permit application may help you to prepare a complete application.

Contingency Plan / Emergency Procedures

In the specific comments below, Ecology identifies many areas where additional, facility-specific, detail is needed to complete the TWRS-P facility contingency plan. These comments are intended to help you develop a contingency plan that is complete, compliant, and useful to

facility personnel and other emergency responders. A significant amount of additional, facility-specific, detail is needed.

Ecology suggests the following guidelines for contingency plan development:

- 1) The contingency plan should specifically identify potential emergency situations that may occur at the TWRS-P facility given the types and volumes of dangerous waste and dangerous constituents treated and stored at the facility and the types of treatment and storage systems used.
- 2) For each potential emergency situation, the contingency plan should specifically identify the response actions that will be taken and the personnel responsible for those actions.
- 3) If equipment will be used in carrying out a response, the contingency plan should specifically identify and describe the equipment and its capabilities. It should also show the location of the equipment at the TWRS-P facility.
- 4) When the contingency plan calls for the emergency coordinator or other facility personnel to make a decision, the criteria for decision-making should be described. Using these guidelines, it may be possible to address many of Ecology's specific comments below in combination.

Ecology understands that it is unreasonable to try to pre-judge every potential emergency situation and every variable that might affect any given emergency response. However, it is critical that the facility contingency plan be a stand-alone document and that it provide all the information necessary for emergency responders, including responders not based at the TWRS-P facility, so they can effectively identify and carry out the actions that might be necessary to lessen the potential impact on the public health and the environment in the event of an emergency.

In addition to Ecology's concerns about the completeness of the TWRS-P facility contingency plan, we are concerned that it is not clear when the contingency plan will be implemented or "triggered." At a minimum, Ecology expects that the contingency plan will be implemented in every emergency situation, including, but not limited to, whenever the facility suffers a fire, explosion, or unplanned sudden or non-sudden release of dangerous waste or dangerous waste constituents to air, soil, surface water, or ground water.

In particular, it is not clear when on-site conditions will trigger implementation of the contingency plan and conformance with emergency procedures. For example, page 7A-30, line 34 notes that the facility emergency coordinator will take certain actions whenever certain conditions at the facility "could threaten human health or the environment outside the facility." These actions include notifications that, according to WAC 173-303-360(d)(ii) are required for any release, fire, or explosion which could threaten human health or the environment (i.e., on or off the facility). Similarly, it is not clear when releases to secondary containment might trigger implementation of the contingency plan. For example, page 6-8, lines 35-37 contemplate situations where spills into secondary containment might trigger implementation of the

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contingency plan; page 7A-27, lines 22-23 indicate that the emergency coordinator will implement the contingency plan only if the spill could "immediately" threaten human health or the environment. Ecology's reading of this would be that spills to secondary containment will:

- 1) always be reported immediately to the emergency coordinator for evaluation;
- 2) trigger implementation of the contingency plan only if the emergency coordinator determines that a threat to human health or the environment is present; and
- 3) if a threat to human health and the environment is not present, be addressed in conformance with the applicable tank, container, or other unit-specific requirements.

Significant additional, facility-specific, detail on the types of conditions that will trigger implementation of the contingency plan and the criteria the emergency coordinator will use to make decisions about contingency plan implementation is needed.

Over the last two years, the U.S. Department of Energy (USDOE), Ecology, the Environmental Protection Agency (EPA), and local emergency planning and response agencies have worked to develop an emergency response and preparedness structure at Hanford that should be incorporated in the TWRS-P contingency plan. The structure seeks to incorporate all emergency planning, response, and preparedness (EP) elements into a single document structure tailored to meet Hanford conditions. As a result, some of the requirements for contingency planning at the TWRS-P facility may be met by incorporating USDOE-0223 (Hanford Site Emergency Response Implementing Procedures) and USDOE 94-02 (Hanford Site Emergency Response Plan).

A key element of the improved Hanford EP document structure is the use of comprehensive documents at the facility level. As a result, it is Ecology's desire, and in the best interest of TWRS-P, to develop one EP document structure that addresses all emergency conditions at the TWRS-P facility. This approach is particularly important at the TWRS-P facility because many of the hazards posed by the facility will be due to radiation, high heat, and high pressures in addition to those posed by hazardous chemicals. As a result, Ecology recommends that TWRS-P proceed with development of a Building Emergency Plan/Contingency Plan that incorporates all EP elements, not just those elements required by WAC 173-303.

Air Emission Requirements

Ecology has included comments on the portions of your pre-application draft that seem to address the federal requirements for air emissions at 40 CFR, Part 264, Subparts AA and BB. These requirements are reiterated in WAC 173-303-690 and are independently effective in Washington State, as a matter of state law. Although WAC 173-303-690 requirements are effective in Washington State, Ecology has not yet been authorized to implement these requirements in lieu of the corresponding requirements of EPA at 40 CFR, Part 264, Subparts AA and BB. Because Ecology is not yet authorized to implement these requirements, EPA will

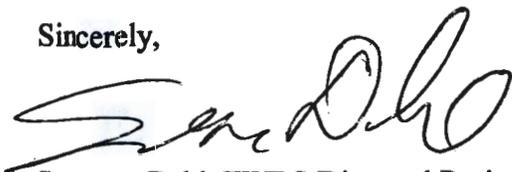
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be responsible for issuing the portions of your permit which address applicable portions of Subparts AA and BB. Ecology will coordinate closely with EPA, Region 10 in evaluating this portion of your permit application.

Additional Information

Thank you again for this opportunity to review pre-application draft chapters of the TWRS-P dangerous waste permit application. Ecology is looking forward to continuing to work with you as you develop your permit application and appreciate the time and effort you have invested to date. We hope this information will help you prepare your application. If you have any questions or require additional assistance, please contact Elizabeth McManus at (360) 407-6524.

Sincerely,



Suzanne Dahl, TWRS Disposal Project Manger
Nuclear Waste Program

SD:EM:sb
Enclosure

cc: Lee Bostic, BNFL
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Administrative Record

Specific Comments

- 6-2 : 15-16 Regulations governing security reference the "active portion" of a facility. Please clarify that the security procedures discuss cover the entire "active portion" of the TWRS-P facility, and if any areas of the TWRS-P facility are considered "inactive" and are not covered by the referenced security procedures please note on facility map. See WAC 173-303-310(2).
- 6-2 : 23-25 Please ensure warning signs are written in English as required by WAC 173-303-310(2)(a).
- 6-3 : 11-12 Please note the location(s) at the TWRS-P facility where inspection records will be stored.
- 6-3 : 1-26 Please identify the specific conditions or the types of conditions under which implementation of the contingency plan is necessary. WAC173-303-350(1) requires that the contingency plan be implemented immediately in an emergency and lists "fire, explosion and planned sudden or nonsudden release of dangerous waste or dangerous waste constituents to air, soil, surface water, or ground water" as examples of emergency conditions. (See also comments on the contingency plan / emergency procedures above and below.)
- 6-3 Table 6-1 Loading and unloading areas should be inspected at least daily whenever they are in use. See WAC 173-303-320(2)(c), loading and unloading areas are areas "subject to spills." (This issue is addressed on 6-7 lines 4 and 5; however, the table does not seem to reflect.)
- 6-4 Table 6-2 Items listed in Table 5-1 "Spill Control and Emergency Equipment" of Appendix 7A should be included in this inspection schedule. In addition, the terms used to describe caches of emergency equipment do not seem to be used consistently -- chapter 6 refers to "emergency response lockers," chapter 7 to "spill kits," please clarify.
- 6-4 Table 6-2 Please list and describe the items contained in emergency response lockers and identify the types of problems that will be looked for during inspections.
- 6-4 Table 6-3 Container loading areas should be inspected daily whenever they are in use. See WAC 173-303-320(2)(c), container loading areas are areas "subject to spills." (This issue is addressed on 6-7 lines 4 and 5; however, the table does not seem to reflect.)
- 6-4 Table 6-3 At a minimum, container storage areas should be inspected at least weekly for "leaking containers and for deterioration of containers and the containment system caused by corrosion, deterioration, or other factors." See WAC 173-303-630(6).

6-4 Table 6-3 The aisle space inspection should include a check to ensure rows of drums are no more than 2 drums wide, and a minimum 30-inch separation is maintained between containers as indicated in section 6.3.2. See WAC 173-303-630(5).

6-5 Table 6-5 It is not clear that this inspection schedule complies with WAC 173-303-640(6) which, among other things, requires that on each operating day an owner / operator inspect: the aboveground portions of tank systems to detect corrosion or release of waste; data gathered from monitoring any leak detection equipment to ensure that the tank system is being operated according to its design; and, the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment systems, to detect erosion or signs of releases of dangerous waste. Please clarify. In addition, more facility-specific detail should be included in this inspection schedule. For example, "Instrumentation" is too general. At a minimum, each type of instrumentation and their relational area should be identified and described, as well as, the problems that will be looked for during inspections and the inspection frequency.

6-6 Table 6-6 It is not clear that the types of inspections contemplated by this schedule comply with the performance standards at WAC 173-303-680(2) as required by WAC 173-303-680(3). Please provide additional detail on how these inspections will ensure compliance with WAC 173-303-680(2). In addition, please identify and describe the specific auxiliary equipment, system alarms, etc., indicator lights, and electrical conditions that will be inspected. See comments on Table 6-5, above.

6-6 Table 6-7 See comments on 6-11, 6-12 : 32-41, 1-22.

6-7 : 20 Please indicate the locations at the TWRS-P facility where inspection plans and schedules will be located (e.g., at shift supervisor station; outside container storage area; etc.).

6-7 : 27 Please indicate that the printed name and handwritten signature of the inspector will be included in the inspection log as required by WAC 173-303-320(2)(d).

6-7, 6-8 :
34-39, 1-14

Please indicate that problems discovered during inspection that do not immediately threaten human health or the environment will be responded to within 72 hours of discovery. If a problem requires more than 72 hours to remedy, please indicate that you will propose a time schedule for correcting the problem subject to Ecology review and approval.

WAC 173-303-320(3) requires that where a hazard to public health or the environment is imminent or has already occurred facility owners and operators take immediate action to remedy problems revealed by inspections and that where hazards are not actual or imminent, facility owners and operators remedy any problems revealed by inspections on a schedule that prevents hazardous to public

health and the environment. Ecology's recommendations for such non-emergency schedules are in this comment and in the next two comments, below. Alternatively, you may develop and describe a different schedule for remedying non-emergency problems revealed by inspections and describe why that schedule prevents hazardous to public health and the environment.

- 6-8 : 5-8 Please indicate that structural repairs will be completed within 90 days of discovery.
- 6-8 : 10-14 Please indicate that ordering and restocking of supplies will be completed within 30 days of discovery.
- 6-8 : 32 Please clarify that, in addition to spilled or leaked material, all other material, e.g., sorbents, will be immediately removed from secondary containment.
- 6-8 : 32 Please describe the steps that will immediately be taken to respond to containers that are not in good condition and to leaking containers as required by 173-303-630(2).
- 6-9 : 18-36 See comments on 6-5 Table 6-5.
- 6-9 : 39-41 This section indicates all tank systems are located indoors . . . therefore cathodic protection is not required. This does not account for waste transfer piping which will be conveying waste feed from the Tank Farms to the processing facility, or for the piping transporting secondary wastes to the Effluent Treatment Facility. Please clarify.
- 6-10 : 10-30 This section appears to address leaks or spills from tanks only. Please expand to include ancillary equipment (piping, pumps etc.) as required by WAC 173-303-640(7).
- 6-10 : 33-41 Corrective actions for releases from the miscellaneous unit are not discussed. Please identify and describe corrective actions for releases from miscellaneous units as required by WAC 173-303-680(3).
- 6-11 : 13-19 Please add the yearly inspection of areas where ignitable/reactive wastes are stored to the appropriate inspection schedule as required by WAC 173-303-395(1)(d).
- 6-11 : 23-25 Please identify and describe the specific units and processes at the TWRS-P facility that are subject to air emission requirements. For example, units associated with distillation, thin-film evaporation, solvent extraction, or air or steam stripping operations. See 40 CFR 264.1032 and 264.1033.
- 6-11, 6-12 :
32-41, 1-22 Please identify and describe the control device which would be used in conjunction with the closed-vent system for reduction of total organic emissions.

In addition, please indicate how total organic emissions reduction will be verified. See requirements at 40 CFR 264.1033(f)(2)-(3) and WAC 173-303-691.

- 6-12 : 30-31 It is not clear that this meets the requirements of 40 CFR 264.1087. Please identify and describe the specific units and equipment subject to air emission requirements that will be used at the TWRS-P facility and describe the way these units comply with applicable portions of 40 CR 264.1087 and WAC 173-303-691.
- 6-13 : 28 When mixed wastes are being poured, mixed, spread, or otherwise handled personnel involved must have immediate access to a communication device, under most circumstances, that access must be either "directly or through visual or voice contact with another employee." See WAC 173-303-340(2)(a).
- 6-16 : 15 Please confirm that water for fire control be at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers or water spray systems. See, WAC 173-303-340(1)(d).
- 6-17 : 1-5 It is not clear that the loading and unloading areas would comply with the requirements of WAC 173-303-395(4) which, among other things, requires that loading and unloading areas be designed, constructed, operated and maintained to: prevent release of dangerous waste or dangerous waste constituents to ground or surface waters; contain wash waters (if any); and, allow for removal of collected wastes resulting from spills, leaks and equipment cleaning. Please clarify by, at a minimum, identifying specific loading and unloading areas and describing how their design, construction and operating procedures ensure compliance with 173-303-395(4).
- 6-17 : 16-25 Please add an inspection of the backflow preventers to the appropriate inspection schedule.
- 6-18 : 17 Please add the inspections of backup power systems, especially those supporting systems required for continued safe operation of the facility, to the appropriate inspection schedule.
- 7A-2 : 1-12 Please provide a site map showing the location of the TWRS-P facility in relation to other site structures and areas, access roads, and population centers.
- 7A-2 - 7A-21 Please indicate, specifically: which buildings and areas of buildings are used at the TWRS-P facility to store or treat what dangerous wastes and dangerous constituents; the approximate volume of dangerous waste or dangerous constituents stored or treated in each building area; and, the potential hazardous of the dangerous waste or constituents stored in each building area. This detail is needed to ensure that the contingency plan provides all the information necessary for emergency responders, especially responders from off-site, to develop and implement appropriate actions to lessen the potential impacts of emergency circumstances as required by WAC 173-303-350(1). It would also be helpful to

include the locations of dangerous wastes and dangerous constituents on the floor plans that will be provided in figures 1-1 through 1-10.

- 7A-22 : 29-40 Please provide additional detail on the qualifications, experience and training necessary for emergency response organization personnel. Qualification, experience and training requirements must show that persons who may act as the emergency coordinator are appropriately qualified. Please also describe the procedures that will be in place to ensure that qualification, experience and training requirements are met by each member of the emergency response organization. In addition, please provide a list of the positions within the emergency response organization and their responsibilities. See WAC 173-303-360(1).
- 7A-23 : 23-27 Please clarify that the emergency coordinator will be thoroughly familiar with all aspects of the facility contingency plan, all operations and activities at the facility, the location and properties of all wastes handled, the location of all records within the facility, and the facility layout as required by WAC 173-303-360(1).
- 7A-23 : 29-33 Please clarify that the emergency coordinator has authority necessary to commit the resources necessary to "carry out the contingency plan" as required by WAC 173-303-360(1).
- 7A-24 : 7-9 Please clarify that the contingency plan / emergency procedures will be implemented whenever there is a fire or explosion, or unplanned sudden or non sudden release of dangerous waste or dangerous waste constituents to the air, surface water, soil or ground water at the TWRS-P facility, as required by WAC 173-303-350(1).
- 7A-24 : 27 -
7A-25 : 13 Please provide additional facility and waste-specific detail on the types of potential emergency conditions that might occur at the TWRS-P facility. Potential emergency conditions should include explicit evaluations of the potential failure of each system used to manage dangerous waste or dangerous waste constituents. This information should be linked back to the general facility information and descriptions of facility systems and process provided earlier in the contingency plan. For each potential emergency condition, at a minimum (1) identify the specific dangerous wastes and dangerous waste constituents that might be released in each potential emergency situation; (2) identify the potential volumes of dangerous waste and dangerous waste constituents that might be released in each potential emergency situation; and (3) describe the potential for exposure of on- and off-facility workers, the general population, and ecological receptors. This detail is needed for Ecology to evaluate whether the contingency plan addresses appropriate potential emergency circumstances and provides the information necessary for emergency responders to identify and take actions to lessen the potential impacts of emergency circumstances. See WAC 173-303-350(1) and (2) and WAC 173-303-360(2).

- 7A-25 : 32-33** Please describe the criteria the emergency coordinator will use to determine if personnel are in physical danger and evacuation of the facility is needed.
- 7A-27 : 1-2** Please describe the procedures that will be in place to ensure facility personnel properly identify and report incidents which may pose a threat to human health or the environment. This detail is needed for Ecology to evaluate whether the contingency plan will be implemented in appropriate circumstances. See WAC 173-303-350(1) and (2) and WAC 173-303-360(2).
- 7A-27 : 14** Please clarify that the emergency coordinator will begin to carry out his or her required duties immediately whenever there is imminent or actual emergency as required by WAC 173-303-360(2)(a), (b), and (c).
- 7A-27 : 25-26** Please describe the types of conditions that might likely be reported by facility personnel as involving a threat or potential threat to human health or the environment yet not, in the evaluation of the emergency coordinator, constitute and emergency / prompt implementation of the contingency plan. This detail is needed for Ecology to evaluate whether the contingency plan will likely be implemented in appropriate circumstances. See WAC 173-303-350(1) and (2) and WAC 173-303-360(2). (Alternatively, this issue might be addressed by a fuller discussion of the types of conditions that would prompt implementation of the contingency plan and the criteria that the emergency coordinator will use to determine if implementation of the contingency plan is warranted.)
- 7A-27 : 28-37** Please identify and describe the specific actions that facility personnel, including the emergency coordinator, will take to lessen the potential impacts of emergency conditions on human health and the environment. This additional detail should be identified and described for each potential emergency condition and should correspond with the potential emergency conditions identified earlier in the contingency plan (comments on 7A-25 : 13). It may help to formulate these plans as "if - then" statements. For example, "if emergency circumstance A occurs, personnel will take specific actions B, C, D." See WAC 173-303-350(3)(a).
- 7A-27 : 30-31** Please describe the criteria the emergency coordinator will use to determine if the notification and / or assistance of off-site authorities is needed. See WAC 173-303-360(2)(a)(ii).
- 7A-28 : 10-13** Please describe the methods that personnel will use to warn others working nearby and to notify the emergency coordinator in the event of an imminent or actual emergency.
- 7A-29 : 17-18** Please identify the Federal, state and local requirements that might govern notification and reporting and describe the specific notification and reporting steps that are required. For example, WAC 173-303-145 requires notification of Ecology in the event of any non-permitted discharge to the environment of a

dangerous waste or hazardous substance. Notification should be by phone to the Washington State Department of Ecology Central Regional Office in Yakima, Washington, on 1-509-575-2490.

- 7A-29 : 31-33** Please describe any additional aspects of the emergency notification process and, for all aspects of the emergency notification process, please describe: (1) the pre-planning (if in addition to the contingency plan); (2) the documentation, testing, and approval processes; and, (3) (briefly) the training program. In addition, for each emergency notification system please identify and describe the primary and backup communication equipment and identify the location of this equipment at the TWRS-P facility. See WAC 173-303-360(2)(a)(i) and (ii) and WAC 173-303-360(2)(d)(i).
- 7A-30 : 8-16** Please describe any equipment that will be available to conduct direct environmental monitoring in the event of a fire, explosion, or release of dangerous waste or dangerous waste constituents, the capability of the equipment, and its location at the TWRS-P facility. See WAC 173-303-360(2)(c).
- 7A-30 : 18-22** Please provide a sampling and analysis plan that will be used in the event of a fire, explosion or release of dangerous waste or dangerous waste constituents. This plan should outline the basic steps that will be taken to identify whether a release is present and, if a release is present, to quantify the nature and extent of contamination. See 173-303-360(c).
- 7A-30 : 25-31** Please describe the criteria the emergency coordinator will use to identify and assess potential and actual hazards. At a minimum, these criteria should include consideration of direct, indirect, immediate, and long-term effects of any given emergency condition. In addition, please describe the criteria the emergency coordinator will use to determine if the assistance of local authorities is needed and please describe the criteria the emergency coordinator will use to determine if evacuation of the facility is needed. See 173-303-36(2)(c) and (d). (See also comments on 7A-25 : 32-33.)
- 7A-30 : 33-35** Please describe the criteria the emergency coordinator will use to determine whether a fire, explosion or release of dangerous waste or dangerous waste constituents or other emergency condition could threaten human health and the environment. See 173-303-360(2)(c) and (d).
- 7A-31 : 12-13** Please identify the indicators related to safety, health, and environmental and security conditions that may affect or exacerbate an emergency condition and will, therefore, be monitored and evaluated by the facility emergency coordinator. Please also describe the monitoring procedures and evaluation criteria that will be used. See WAC 173-303-360(2)(c).
- 7A-31 : 15-19** Please identify the Hanford Site, Federal, state and local organizations with which the emergency coordinator will coordinate and describe the arrangements to

coordinate emergency requirements. (If this information is already included through additional detail added to other portions of the contingency plan, it does not have to be repeated here.) See WAC 173-303-340(4) and WAC 173-303-350(2)(c).

- 7A-31 : 22-24 Please describe the procedures and equipment the emergency coordinator will use to monitor for leaks, pressure buildup, gas generation or ruptures in valves, pipes, or other equipment and the criteria the emergency coordinator will use to determine if such monitoring is appropriate. See WAC 173-303-360(2)(g).
- 7A-32 : 1-18 Please describe the specific actions that facility personnel, including the emergency coordinator, will take to ensure that fires, explosions, releases and other emergency conditions do not occur, reoccur, or spread to other areas of the TWRS-P facility. This additional detail should be identified and described for each potential emergency condition and should correspond with the potential emergency conditions identified earlier in the contingency plan (comments on 7A-25 : 13 and 7A-27 : 28-37). Note that actions should include, where applicable, stopping processes and operations, collecting and containing released waste, removing waste from tanks and removing or isolating containers all of which should be described in facility-specific detail. See WAC 173-303-350(3)(a) and WAC 173-303-360(2)(f).
- 7A-23 : 6-7 Please describe the criteria the emergency coordinator will use to determine if removal of leaked material and other material from containment is necessary.
- 7A-32 : 13 Please describe the criteria the emergency coordinator will use to determine if decontamination is necessary and, if decontamination is necessary, the decontamination procedures and equipment that will be used.
- 7A-32 : 17-18 Please describe the criteria the emergency coordinator will use to determine if all released waste is removed and the facility is operable.
- 7A-32 : 35-37 Please identify the local, state and Federal requirements that are anticipated to govern treatment, storage and disposal of soil, water, or other materials contaminated by a spill or discharge (including recovered dangerous wastes and dangerous waste constituents), describe the applicable treatment, storage, and disposal requirements, and describe the procedures that will be in place to ensure applicable requirements are met. See WAC 173-303-360(2)(h).
- 7A-32 : 37-38 Please describe the equipment that would likely be necessary to collect, recover, treat, store or dispose soil, water or other materials contaminated by a spill or discharge (including recovered dangerous wastes), identify the location of that equipment at the TWRS-P facility or, if equipment is not located at the TWRS-P facility, the procedures that will be used to activate / obtain necessary equipment. See WAC 173-303-350(3)(e) and WAC 173-303-360(2)(h).

- 7A-33 : 1-3 Please describe the criteria the emergency coordinator will use to determine if sampling and analysis of spilled or released material or contaminated soil, ground water, or other contaminated material is necessary.
- 7A-33 : 6-7 Please describe the equipment that is available for monitoring, containment, cleanup, and disposal of released dangerous wastes (and contaminated materials) and identify the location of the equipment at the TWRS-P facility or, if equipment is not located at the TWRS-P facility, the procedures that will be used to activate / obtain necessary equipment. See WAC 173-303-350(3)(e) and WAC 173-303-360(2)(h).
- 7A-33 : 11-31 Please describe the specific actions that facility personnel, including the emergency coordinator, will take to contain, treat, cleanup and decontaminated areas affected by fire, explosion, release of dangerous waste or dangerous waste constituents and other emergency conditions. This additional detail should be identified and described for each potential emergency condition and should correspond with the potential emergency conditions identified earlier in the contingency plan (comments on 7A-25 : 13 and 7A-27 : 28-37 and 7A-32 : 1-18). See WAC 173-303-350(3)(a) and WAC 173-303-360(2)(h).
- 7A-33 : 34-41 Please describe the procedures and criteria the emergency coordinator will use to determine if incompatible wastes are formed as a result of an emergency incident and, if incompatible waste is formed, the procedures and equipment that will be used to properly segregate and manage the waste. See WAC 173-303-360(2)(i)(i).
- 7A-34 : 7 Please identify the locations of spill collection tanks at the facility and describe which spill collection tanks will be used for particular types of spills or releases. See WAC 173-303-350(3)(e) and WAC 173-303-360(2)(h).
- 7A-34 : 13-15 Please identify the person responsible for ensuring that spills in loading, unloading or other transfer areas are cleaned up immediately and for proper management of spill residues and identify and describe the specific actions that will be taken in the event of a spill to recover spilled material (if possible), cleanup and / or decontaminate any contaminated material, and properly manage spill residues. See WAC 173-303-145, WAC 173-303-350(1), and WAC 173-303-395(4).
- 7A-34 : 21-22 Please describe the criteria the emergency coordinator will use to determine if soil (or ground water or surface water or air) is potentially contaminated and, if soil (or ground water or surface water or air) is potentially contaminated, the procedures and criteria which will then be used to identify appropriate cleanup, treatment, storage and disposal requirements. See WAC 173-303-145, WAC 173-303-350(1), and WAC 173-303-360(2)(h).

- 7A-34 : 25-26 Please describe the criteria the emergency coordinator will use to determine if repairs or replacements of emergency equipment are necessary.
- 7A-34 : 29-35 Please describe the criteria that will be used to identify proper decontamination and disposal procedures and requirements for items contaminated during an emergency or subsequent cleanup and describe the procedures and equipment that will be used to ensure appropriate decontamination or disposal occurs. (This should include a description of decontamination procedures and identification of the locations at the TWRS-P facility that may be used for decontamination.) Please describe the procedures and equipment that will be used to check personnel for contamination and the criteria that will be used to determine if decontamination is necessary and please describe the criteria that will be used to determine when safety equipment are refilled, replenished, and cleaned so as to be ready for future service and the procedures the emergency coordinator will use to verify that facility equipment is ready for future use before facility operations are resumed. See WAC 173-303-360(2)(h) – (j).
- 7A-34 : 38-41 Please describe the notification procedure that will be used. (E.g., telephone calls to whom; letter; etc.) Notification should be to: Washington State Department of Ecology, Kennewick Office, Attn: Emergency Coordinator, 1314 W. 4th Avenue, Kennewick, WA 99336-6018.
- 7A-35 : 7A-37 Please identify and describe the emergency equipment that would likely be used to respond to each of the potential emergency conditions identified earlier in the contingency plan. This additional detail should be identified and described for each potential emergency condition and should correspond with the potential emergency conditions identified earlier in the contingency plan (comments on 7A-25 : 13, 7A-27 : 28-37, 7A-32 : 1-18 and 7A-33 : 11-31). See WAC 173-303-350(3)(e).
- 7A-35 : 11-12 Please identify, on a facility map, the locations of dry chemical fire extinguishers.
- 7A-35 : 27-28 If the inspection, testing, and maintenance of emergency equipment referenced are in addition to those covered by the facility's inspection schedule, please describe. See WAC 173-303-320(2).
- 7A-35 : 36 Please identify, on a facility map, the locations of spill kits. For emergency equipment that is not kept in spill kits, please identify, on a facility map, the location of the emergency equipment.
- 7A-35 : 40-41 Please identify the specific personnel protective equipment that would likely be used to respond to each of the potential emergency conditions identified earlier in the contingency plan. This additional detail should be identified and described for each potential emergency condition and should correspond with the potential emergency conditions identified earlier in the contingency plan (comments on

7A-25 : 13, 7A-27 : 28-37, 7A-32 : 1-18, 7A-33 : 11-31 and 7A-35 -7A-37). See WAC 173-303-350(3)(e).

- 7A-36 : 4-5 Please identify, on a facility map, the locations of emergency response kits. If emergency response kits are different from the spill kits previously discussed, please describe.
- 7A-37 : 2-11 Please identify, on a facility map, the locations of telephones and fire alarms in process areas and support buildings.
- 7A-38 : 2-18 The actual coordination agreements must be in place and described in the contingency plan before your permit can be issued. Ideally, they would be in place at the time of your permit application. In addition, the procedures and arrangements that will be used to familiarize police, fire departments, hospitals and emergency response teams with the facility must also be in place. See WAC 173-303-340(4) and WAC 173-303-350(2)(c).
- 7A-39 : 2-4 Please describe the criteria the emergency coordinator will use to determine if evacuation is warranted.
- 7A-39 : 17 Please ensure that evacuation routes are describe both for on and off the TWRS-P facility. See WAC 173-303-350(3)(f).
- 7A-39 : 17-21 Please describe how the primary and alternative evacuation routes take wind direction into consideration.
- 7A-40 : 6-8 Please identify the Ecology office to which the written report on implementation of the contingency plan will be sent. Notification should be to: Washington State Department of Ecology, Kennewick Office, Attn: Emergency Coordinator, 1314 W. 4th Avenue, Kennewick, WA 99336-6018.
- 7A-40 : 29-31 Please describe the procedures that will be used to ensure events that trigger implementation of the contingency plan will be noted in the facility operating record as required by WAC 173-303-360(2)(k).
- 7A-40 : 33-34 Please describe the procedures for reporting releases from tank systems to Ecology. Notification should be to: Washington State Department of Ecology, Kennewick Office, Attn: Emergency Coordinator, 1314 W. 4th Avenue, Kennewick, WA 99336-6018.
- 7A-41 : 6-8 Please identify the Ecology office to which the written report on implementation of the contingency plan will be sent. Notification should be to: Washington State Department of Ecology, Kennewick Office, Attn: Emergency Coordinator, 1314 W. 4th Avenue, Kennewick, WA 99336-6018.

- 7A-41 : 7 Please identify the criteria that will be used to determine which repairs to tank systems constitute "major" repairs.
- 7A-41 : 12-14 Please identify the local police departments, fire department, hospitals, and state and local emergency response teams to which a copy of the contingency plan will be provided. See WAC 173-303-340(4) and WAC 173-303-350(2)(c).
- 8A-9 : 8A-13 The job descriptions listed in section 5.3 do not include the requisite skills, education, and other qualifications required for each position as required by WAC 173-303-330(2)(a).
- 8A-17-21 It is not clear from the tables which facility personnel / job classifications will receive training in procedures for ground-water contamination incidents and shutdown of operations. Similarly, which training classes are intended to provide personnel with training on procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. Generally, it would be helpful to use the terms from WAC 173-303-330(1)(d) when describing training meant to fulfil that requirement.