WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Building 17-05 Interim Remedial Action

2. Name of applicant: The Boeing Company
3. Address and phone number of applicant and contact person:

   Mr. James Bet
   The Boeing Company
   Shared Services Group
   P.O. Box 3707, MC IW-12
   Seattle, WA 98124-2207
   (206) 679-0433

4. Date checklist prepared: April 7, 2004
5. Agency requesting checklist: Department of Ecology
6. Proposed timing or schedule (including phasing, if applicable): May 2004 until December 2005

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   The project may be extended depending on the success of the initial application.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Area 1 Property Transfer Work Plan, Boeing Auburn Plant, Auburn, Washington, November 2003

Area 1 Remedial Investigation Report, Boeing Auburn Facility, Auburn, Washington, January 30, 2004.

Interim Remedial Action Work Plan, Boeing Auburn Area 1, 700 15th Street SW, Auburn, Washington, April 2, 2004

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No.

10. List any government approvals or permits that will be needed for your proposal, if known.

Registration of this project must be obtained from the Department of Ecology Underground Injection Control (UIC) Program. A registration form must be submitted to the UIC. The registration must be approved prior to the injection of fluids into the subsurface.

Well drilling start cards and drilling reports will be required and submitted to the Department of Ecology by the licensed well driller.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Groundwater (approximately 136,000 gallons) will be extracted from existing groundwater monitoring wells located on-site and stored temporarily in aboveground tanks. This groundwater will be mixed with molasses or sodium lactate, emulsified vegetable oils, and trace amounts of yeast and then reinjected into a series of 66 wells in 33 locations installed at the project site inside of Building 17-05. The molasses or sodium lactate and emulsified vegetable oil will stimulate microbial biodegradation of dissolved solvents in the groundwater and soil under a former manufacturing area. The goal of this program is to remediate the affected groundwater from the past solvent release at this site.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Boeing Building 17-05
Auburn Fabrication Plant
700 15th Street SW
Auburn, Washington

See the attached project location maps.

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one): The site is flat.

b. What is the steepest slope on the site (approximate percent slope)? There are no steep slopes on the site.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The site is underlain by silty sand and gravels that are underlain by sandy gravels to an approximate depth of 100 feet.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There is no surface indication or history of unstable soils in the immediate vicinity of the project.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

No filling or grading is proposed.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Work will occur inside of a large building.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

95% of the site is already covered with impervious surfaces, and will remain so after completion of this temporary project.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

No erosion impacts are expected.

a. **Air**

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

During construction, diesel-exhaust emissions will occur from the drilling equipment. Once the project is operational no emissions to the air are expected.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No odors are expected to be generated by the project, aside from the odor associated with diesel exhaust.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None required or anticipated.

3. **Water**

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

There are no surface water bodies in the immediate vicinity of the project location.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Not applicable.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Not applicable.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No surface water withdrawals or diversions are planned.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

The proposal does not lie in the 100-year floodplain (National Flood Insurance Map 53033C0461 D, Federal Emergency Management Agency, 1989)

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Groundwater will be withdrawn from the shallow aquifer, and then re-injected into the same aquifer. Approximately 136,000 gallons of groundwater will be withdrawn and mixed with 5,600 gallons of molasses or sodium lactate solution, 12,250 gallons of emulsified vegetable oil, and minor amounts of sodium bromide tracer and yeast extract. This dilute solution will be re-introduced into the aquifer through the 66 nested injection wells.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste material will be discharged to the ground.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Any water runoff at the project site will be controlled following Boeing's pre-existing stormwater management system and practices.

2) Could waste materials enter ground or surface waters? If so, generally describe.

No waste materials will enter groundwater or surface water.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

There will be no water runoff from project.

4. **Plants**

a. Check or circle types of vegetation found on the site:

———— deciduous tree: alder, maple, aspen, other

———— evergreen tree: fir, cedar, pine, other

———— shrubs

———— grass

———— pasture

———— crop or grain

———— wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

———— water plants: water lily, eelgrass, milfoil, other

———— other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

None.

c. List threatened or endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None planned or anticipated.

5. **Animals**

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other: Hawks, bald eagles, and songbirds have been observed near the site, though it should be noted that this is a manufacturing facility and is zoned for industrial activity.
mammals: deer, bear, elk, beaver, other: Coyote.
fish: bass, salmon, trout, herring, shellfish, other: None.

b. List any threatened or endangered species known to be on or near the site. None noted.

c. Is the site part of a migration route? If so, explain.

No.

d. Proposed measures to preserve or enhance wildlife, if any:

None proposed.

6. **Energy and natural resources**

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Temporary electrically-powered pumps or diesel-powered pumps will be used to extract and transfer the groundwater from the monitoring wells, to the temporary storage tanks, and into the injection wells.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The project will not affect the potential use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

No energy conservation features are included in the plans of this proposal.

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

During drilling and pumping of groundwater workers may be potentially exposed to soil and groundwater that contain residual concentrations of solvents and related chemicals, and the primary route of exposure would be inhalation. Biodegradation of the molasses or sodium lactate and emulsified vegetable oil after injection has the potential to generate dissolved methane. The dissolved methane will partition into the unsaturated soils and may gather inside the building, particularly in the underground utilidor corridor.

1) Describe special emergency services that might be required.

No special emergency services are will be required.

2) Proposed measures to reduce or control environmental health hazards, if any:

A health and safety plan will be developed to address the potential exposure to solvent-affected soil and groundwater. Breathing zone monitoring, mechanical ventilation aids, and HAZWOPER exclusion zones will be used to control the potential exposure to volatilized contamination from the soil and groundwater. Dissolved methane concentrations will be monitored in the groundwater and it is not expected that methane will reach explosive levels inside the building. A meter for detecting methane will be available to monitor the methane concentrations in the building.

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Light traffic only. This is an inactive area of the facility.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Drill rigs will be used to install the injection well network at the site. It is anticipated that the 66 nested injection wells (at 33 locations) will take approximately one month to install. Drilling will be completed during working hours of 7 AM to 6 PM.

3) Proposed measures to reduce or control noise impacts, if any:

Personnel working near the drill rigs will need to wear hearing protection such as ear plugs.

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties?

Manufacturing, industrial and recreation.

b. Has the site been used for agriculture? If so, describe.

The site has not been used for agriculture for approximately 50+ years.

c. Describe any structures on the site.

A former manufacturing building of approximately 480,000 square feet is present. The building is approximately 40 feet high.

d. Will any structures be demolished? If so, what?

No structures will be demolished.

e. What is the current zoning classification of the site?

M-1 Light Industrial (City of Algona) /M-2 Heavy Industrial (City of Auburn).

f. What is the current comprehensive plan designation of the site?

Industrial.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

A portion of the property located 5000 feet to the south of the project site is classified as wetlands. The wetlands are upgradient of the project site, so the project will not affect the wetlands.

i. Approximately how many people would reside or work in the completed project?

This is a temporary project of limited duration.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None required.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

None anticipated.

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable.

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

All structures will be enclosed within the existing Building 17-05.

b. What views in the immediate vicinity would be altered or obstructed?

No views would be altered or obstructed since the project is located within Building 17-05.

c. Proposed measures to reduce or control aesthetic impacts, if any:

None proposed.

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The proposed project should not produce light or glare as operations will take place inside Building 17-05.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Not applicable.

c. What existing off-site sources of light or glare may affect your proposal?

Not applicable.

d. Proposed measures to reduce or control light and glare impacts, if any:

Not applicable.

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity?

A YMCA gym and recreational facility is under construction on the adjacent property to the north.

b. Would the proposed project displace any existing recreational uses? If so, describe.

The project would not displace any existing recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None anticipated.

13. **Historic and cultural preservation**

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None known.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None on or next to the site.

c. Proposed measures to reduce or control impacts, if any:

Not applicable.

14. **Transportation**

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Perimeter Road is a Boeing-owned road that serves the facility. Perimeter Road is accessible from 15th Street SW in Auburn and from 1st Avenue in Algona.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Yes.

c. How many parking spaces would the completed project have? How many would the project eliminate?

This is a temporary project and will not eliminate any parking spaces.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

The proposed project will not require any new roads, streets or improvements.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Because of the location of the project inside a building, the project will not use, or occur in the immediate vicinity of water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Because this is a temporary project, less than one vehicle trip per day would be generated by the project after completion.

g. Proposed measures to reduce or control transportation impacts, if any:

None required.

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No increased need for public services anticipated.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None anticipated.

16. **Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

There are no permanent utilities that are proposed for this project. Temporary piping or hoses will connect the temporary groundwater storage tanks to the wells.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: .....

Date Submitted: April 9, 2004

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; pro duction, storage, or release of toxic or hazardous substances; or production of noise?

The groundwater from the monitoring wells will be re-injected after addition of the molasses or sodium lactate solution, emulsified vegetable oil, and minor amounts of yeast extract and sodium bromide. The net addition of approximately 17,850 gallons of molasses or sodium lactate solution and emulsified vegetable oil will not be likely to significantly increase the discharge of groundwater to the surface water. The addition of molasses or sodium lactate and emulsified vegetable oil will eventually lower the dissolved concentrations of solvents, which is a net benefit.

The proposal will lower the oxygen content of the shallow groundwater near the injection wells, but the overall volume of groundwater with lowered oxygen content is relatively small compared to the regional groundwater flow system. It is expected that the affected groundwater will become reoxygenated as it moves downgradient well before discharge to surface waters.

Proposed measures to avoid or reduce such increases are:
Not applicable.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The proposal is not likely to affect plants, animals, or fish.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:
Not applicable.

3. How would the proposal be likely to deplete energy or natural resources?

The proposal is unlikely to deplete energy or natural resources.

Proposed measures to protect or conserve energy and natural resources are:
Not applicable.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The proposal is unlikely to use or affect any of these uses or subjects.

Proposed measures to protect such resources or to avoid or reduce impacts are:
Not applicable.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The proposal will not affect land and shoreline use.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Not applicable.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The proposal will not be likely to increase demands on transportation or public services and utilities.

Proposed measures to reduce or respond to such demand(s) are:

Not applicable.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

Because the project is intended to remediate the effects of a past release of solvents to groundwater, it will not conflict with local, state, or federal laws protecting the environment. The project is being completed under the direct supervision of the Department of Ecology as part of the existing Agreed Order for the Boeing Auburn facility.