

ENVIRONMENTAL CHECKLIST

Purpose of Checklist

The State Environmental Policy Act (SEPA), chapter 43.21 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 your 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 answers “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:

ARCO Harbor Island Terminal 21T

2. Name of applicant:

ARCO Harbor Island Terminal 21T

3. Address and phone number of applicant and contact person:

Applicant:

ARCO Products Company

Attn: Ralph Moran

4 Centerpointe Drive, Suite 100

La Palma, California 90623

714-670-5126

Contact:

Larry E. Roberts, RG

TechSolv Consulting Group, Inc.

12510 128th Lane Northeast

Kirkland, Washington 98034

425-823-4337

4. Date checklist prepared:

December 2, 1999

5. Agency requesting checklist:

Washington State Department of Ecology

Northwest Regional Office

Toxic Cleanup Program

3190 160th Avenue, SE

Bellevue, WA. 98008-5452

Contact: Nnamdi Madakor (Site Manager)

Phone: (425) 649-7000

6. Proposed timing or schedule (including phasing, if applicable):

The excavation and construction phases of the project should commence during the first half of the year 2000, and be completed within six months. Operation of the remedial system will continue for a period of at least 5 years, plus a period of additional monitoring.

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 has been engineered for possible future expansions, however, no immediate plans have been made to expand the system.

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

Engineering Enterprises, Inc., 1987. Subsurface Environmental Assessment ARCO Harbor Island Terminal Seattle, Washington, October 1987.

EVS Environmental Consultants and Hart Crowser, Inc., 1995. Harbor Island Sediment Operable Unit Supplementary Remedial Investigation, June 1995.

Geraghty & Miller, Inc., 1994. Remedial Investigation – ARCO Harbor Island Terminal 21T Seattle, Washington, July 1994.

Geraghty & Miller, Inc., 1996a. Technical Memorandum Summarizing Supplemental Remedial Investigation Activities and Results – ARCO Terminal 21T Seattle, Washington, June 1996.

Geraghty & Miller, Inc., 1996b. Conceptual Site Model and Selection of the Preferred Remedial Alternative, December 1996.

Geraghty & Miller, Inc., 1997a. Draft Cleanup Action Plan (CAP) – ARCO Terminal 21T Seattle, Washington, April 1997.

Geraghty & Miller, Inc. and GeoEngineers, Inc., 1997b. Final Focused Feasibility Study – ARCO Terminal 21T Seattle, Washington, April 1997.

Roy F. Weston, Inc., 1993. Feasibility Study Report – Harbor Island, February 1993.

TechSolv Consulting Group, Inc. and ARCADIS Geraghty & Miller, Inc., 1999. Air Sparging Pilot Test and Groundwater Pumping Test Report, January 1999.

United States Environmental Protection Agency, 1993. Record of Decision – Declaration, Decision summary, and Responsiveness Summary for Harbor Island Soil and Groundwater Seattle, Washington, September 1993.

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.**

Consent Decree and Final Cleanup Action Plan
Remedial Engineering Design Report (anticipated to be completed in 2000)

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

Approval of the Consent Decree and Cleanup Action Plan by Ecology
Shoreline Permit by Ecology
Remedial Engineering Design Report by Ecology

11. **Give brief, complete description of your proposal, including the proposed uses and the site of the project. 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.)**

Detailed descriptions of each alternative with engineering drawings, specifications and justifications will be presented in the Remedial Design document. A conceptual description of each element and how it will be implemented at the site is presented below:

The project proposal includes the installation of several groundwater pumping wells along the Duwamish waterfront in the warehouse and loading rack areas of Plant 1 at ARCO Terminal 21T. An interim groundwater system is already in use at the site, and the proposed project will increase the size and effectiveness of the existing system. Soil vapor extraction (SVE) wells will also be installed along the same area as the groundwater monitoring wells, increasing the size and effectiveness of the existing SVE system.

Soil excavations will also be conducted during the completion of the project. Within the Plant 1 tank farm, approximately 1,100 cubic yards of soil will be removed and disposed then backfilled with clean recycled soil. Approximately 620 cubic yards of soil will be excavated from the Plant 2 tank farm in the same manner as with Plant 1. Details are contained in the

Cleanup Action Plan (CAP), Exhibit B, of the Consent Decree.

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 details plans submitted with any permit applications related to this checklist.**

ARCO Terminal 21T Plant 1 is located at 1652 Southwest Lander Street on the western edge of Harbor Island in Seattle, Washington. Most of the activities for this project would be in Plant 1, however some soil excavation activities would occur at ARCO's Plant 2, also located on Harbor Island, at the corner of 11th Avenue and Florida Street. Activities in Plant 1 consist of an expansion to the existing recovery system along the waterfront of the Duwamish River, and a soil excavation in the Plant 1 tank farm located approximately 400 feet east of the waterfront. Soil excavations will also occur in Plant 2, which is located near the center of Harbor Island. See Figure 1 (attached) for site location.

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B. ENVIRONMENTAL ELEMENTS

1. Earth

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

Flat, rolling, hilly, steep slopes, mountainous, other:

b. What is the steepest slope on the site (approximate percent slope)?

The site is generally flat, with a slope of approximately 1 to 2 percent.

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.

Soils are predominantly sand and gravel fill, with clay and silt lenses at depths greater than 18 feet.

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

No.

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

Fill material will vary in two parcels. A sand and gravel fill material will be obtained from commercial suppliers and/or be treated thermally onsite and backfilled. Details of the amount and purpose of fill are provided in the Cleanup Action Plan

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

No.

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

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No additional impervious materials will be added to the site.

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

None

2. Air

- a. **What type 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 emissions to the air may include dust and automobile and equipment exhaust, which will be managed with best management practices. The completed remedial project is permitted by the Puget Sound Air Pollution Control Agency (PSAPCA) for emissions from the soil vapor extraction system and the air stripper system.

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

No.

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

The formation of dust will be kept to a minimum, and emissions from the remediation system will be kept within PSAPCA permit limitations.

3. Water

- a. **Surface:**

- 1) **Is there are 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**

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river it flows into.

The site is located adjacent to the west waterway of the Duwamish River.

- 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.**

The installation of groundwater pumping wells and the expansion of the system will occur within 200 feet of the West Duwamish Waterway. All excavation activities will occur greater than 200 feet east of the waterway. See Figure 2 (attached) for proposed locations of groundwater pumping wells.

- 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.**

None.

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

No.

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

No.

- 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 waste materials will be discharged to surface water without first being discharged to the sanitary sewer.

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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 site to remove contamination and to provide hydraulic control of contaminant migration. A maximum groundwater extraction rate of 1,166,400 gallons per month is anticipated following startup of the expanded extraction system. All extracted groundwater will be discharged to the sanitary sewer via an existing sewer connection.

- 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.**

None

c. Water Runoff (including storm water):

- 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.**

Storm water and other water runoff will continue to flow into the existing storm water system at the site. In portions of Plant 1, the storm water system is connected to an oil-water separator before the water is discharge to the sewer. The project activities associated with the system expansion and excavations in both Plant 1 and Plant 2 are not anticipated to increase the volume of runoff that normally occurs from the site.

- 2) **Could waste materials enter ground or surface waters? If**

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so, generally describe.

No.

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

The existing bulkhead seawall acts as a hanging wall that prevents free product from discharging directly into the West waterway of the Duwamish River. The proposed expansion of the groundwater extraction system along the shoreline is an added protection to the Duwamish River by acting as a hydraulic barrier that allows contaminated groundwater behind the bulkhead seawall to be collected and treated before proper disposal. Storm water on site goes through the storm water system, which is connected to an oil-water separator before the water is discharge to the sewer system.

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:

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None.

5. Animals

- a. **Circle or underline any birds or animals that have been observed on or near the site or are known to be on or near the site:**

birds: hawk, heron, eagle, songbirds, other: seagulls

mammals: deer, bear, elk, beaver, other: _____

fish: bass, salmon, trout, herring, shellfish, other: _____

- b. **List any threatened or endangered species known to be on or near the site.**

Chinook Salmon in the Duwamish River

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

The site is separated from the West waterway of the Duwamish River by a bulkhead seawall. Duwamish River is a migration route for Salmon.

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

The existing bulkhead seawall acts as a hanging wall that prevents free product from discharging directly into the West waterway of the Duwamish River. The proposed expansion of the groundwater extraction system is an added protection to the Duwamish River by acting as a hydraulic barrier that allows contaminated groundwater behind the bulkhead seawall to be collected and treated before proper disposal. Storm water on site goes through the storm water system, which is connected to an oil-water separator before the water is discharge to the sewer system. As part of the Groundwater Compliance and Contingency Plan, surface water booms will be used to monitor, control and remove sheens, sediment and biota sampling will be conducted to ensure that the ecosystem is protected.

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.**

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Electrical energy will be used at the site to power the equipment and provide heating for some components of the treatment system.

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

No

- 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:**

None.

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.**

Health hazards during construction include possible welding hazards, contact with petroleum compounds, inhalation of toxic compounds, and/or release of contaminated water. Proper precautions will be implemented to assure that any risk to health or environment is reduced.

- 1) **Describe special emergency services that might be required.**

None.

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

A comprehensive Site Health and Safety Plan will be prepared for site workers associated with the project.

- b. Noise

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

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Noise in the area of the proposed project include traffic noise from tanker trucks, barges, and alarms.

- 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 site.**

During construction noise will come from concrete cutting, drilling, backhoes and trackhoes, and other construction equipment. After construction, noise from blower fans and air compressors will occur on a long-term basis.

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

During construction, areas of high noise levels will require hearing protection. After construction, noise insulating materials will surround the blower fans and air compressors.

8. **Land and Shoreline Use**

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

The site is currently a loading terminal for bulk fuel trucking. The adjacent properties are similar bulk fuel terminals and a large shipyard.

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

No.

- c. **Describe any structures on the site.**

The structures on the site include a large warehouse with office space, a truck maintenance building, a fuel loading rack, and tank farms consisting of large above ground bulk fuel storage tanks.

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

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No.

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

Industrial.

- 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?**

Shorelines of the State

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

Do Not Know.

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

None

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

None.

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

Not Applicable

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

Not Applicable

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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?**

The tallest structure in the proposal is the effluent stack from the soil vapor extraction unit, which is already in place and permitted. The stack is located in the existing warehouse and penetrates the roof of the warehouse at a height of approximately 40 feet above ground surface.

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

None.

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

Not applicable

11. Light and Glare

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

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None.

- 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?**

None

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

None.

12. Recreation

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

None.

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

No.

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

None

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.**

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No

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

None

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

None

14. Transportation

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

The public streets serving Plant 1 include SW Lander Street, Frontage Road, and 16th Ave. SW. Plant 2 is serviced by 11th Ave. SW.

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

Does not apply.

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

None

- 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).**

No.

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

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No.

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

The project will not create any volume of vehicular traffic, except during construction.

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

Not Applicable.

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.**

An inspection of the areas to be excavated by the fire department may be necessary prior to excavating, but there will be no increased need for public service upon completion of the project.

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

Not applicable

16. Utilities

- a. **Circle or underline 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 immediate vicinity which might be needed.**

The only utilities proposed for the project are sanitary sewer access

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and electrical power. The project has already been connected to the sanitary sewer, and is appropriately permitted for discharge, and has its own access to electrical power.

C. SIGNATURE

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

Signature: _____

Date submitted: _____

This checklist was reviewed by: _____
Environmental Specialist, Department of Construction and Land Use

Any comments or changes made by the Department are entered in the body of the checklist and contain the initials of the review.
