

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

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.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[HELP\]](#)

1. Name of proposed project, if applicable:

General Electric (GE) 220 South Dawson Street Site (site): Cleanup action under the Model Toxics Control Act of dangerous wastes and dangerous constituents at and from the former GE site located at 220 S Dawson Street, Seattle, WA.

2. Name of applicant:

**Mr. Tom Antonoff,
General Electric Company
1 River Road Bldg 5-7W
Schenectady, NY 12305-2551
518-388-4142
tom.antonoff@ge.com**

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

**Mr. Tom Antonoff, General Electric Company
1 River Road Bldg 5-7W
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also contact

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4. Date checklist prepared:

July 26, 2018

5. Agency requesting checklist:

Washington State Department of Ecology

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

Following public comment and Ecology approval of the groundwater contingent remedy technical memorandum, GE will submit an Engineering Design Report (EDR) and monitoring plans for in-situ groundwater chemical reduction (ISCR) as the contingent remedy. Ecology will review, modify and approve the EDR.

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

Ecology anticipates that the soil, groundwater and indoor air cleanup will require the installation and maintenance of equipment inside and outside of the existing buildings at and near the site.

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

- **Contingent Remedy Evaluation Technical Memorandum, GE S. Dawson Street, dated June 22, 2018.**
- **In-Situ Chemical Oxidation (ISCO) Pilot Study Completion Report, GE S. Dawson Street, dated October 27, 2017, and report addendum dated March 23, 2018.**
- **Ecology Consent Decree (14-2-09134-6), dated March 31, 2014.**

- Ecology Cleanup Action Plan, dated March 14, 2014.

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.

None.

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

- **King County Wastewater Discharge Authorization.**
- **Ecology underground injection permit.**
- **Ecology approval of GE EDR.**
- **Miscellaneous municipal permits for equipment installation or street use.**

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.)

The site is the source of chlorinated solvent spills to the underlying soils and groundwater while under ownership by GE. The Washington State Department of Ecology is the lead Agency responsible for overseeing: construction, testing and implementation of optimized groundwater hydraulic control and groundwater treatment of chlorinated solvent contaminated groundwater. The remedy will utilize EHC[®], which is a plant-based organic material containing zero valent iron. EHC groundwater injections and groundwater monitoring well installations are planned both on-site and off-site. Existing groundwater monitoring wells on- and off-site will be sampled during the site remediation to monitor cleanup progress. A vapor intrusion mitigation system (VIMS) will continue to operate for the on-site building at 220 S. Dawson Street. The cleanup (EHC groundwater injections, operation of the groundwater pump and treat system, and operation of the VIM system) will remediate groundwater, soil and indoor air to Ecology required cleanup levels and reduce the potential for future discharge of contaminated groundwater to the Duwamish River.

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.

The site is located at 220 S. Dawson Street, Seattle, WA. Activities will take place on-site and all offsite properties (mostly westerly) over the trichloroethylene (TCE) groundwater plume.

B. Environmental Elements [\[HELP\]](#)

1. Earth [\[help\]](#)

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other..... **Generally flat area.**

- b. What is the steepest slope on the site (approximate percent slope)?
No slopes in the project area.
- 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 agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.
Fill materials compromising of sand or silty sands.
- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
No.
- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.
No grading or filling proposed during remediation.
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Site is almost all covered with asphalt or concrete. Construction, if required to implement a small-scale injection event, would not likely result in erosion.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
Percent of impervious surface will remain currently unchanged as a result of remediation, near 100%
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
The project is not expected to produce any erosion or other impacts to the earth.

2. Air [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
Exhaust from automotive and drill equipment vehicles is expected during the two-week groundwater injection and groundwater monitoring installation phase. No other new exhaust or emissions to air are anticipated after this initial phase or as a result of this cleanup proposal.
- 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:
No proposed measures to reduce or control minimal dust and vehicle exhaust emissions are necessary. These would be short-term emissions during the initial construction of the cleanup remedy only.

3. Water [\[help\]](#)

a. Surface Water: [\[help\]](#)

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.
Yes, the project is approximately ½ mile east 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.
No.

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 diversions? 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

5) 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 Water: [\[help\]](#)

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.
Yes, contaminated groundwater will be withdrawn at the 220 South Dawson Street site as part of the optimized groundwater hydraulic control system. The withdrawn groundwater will be discharged to the sanitary sewer under a King County Discharge Authorization.

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 into the ground from septic tanks or other sources.

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.

Stormwater runoff is not expected to change as a result of the site cleanup. Stormwater runoff currently is collected in street stormwater drains and flow to City storm sewers. The site cleanup is not expected to result in the contamination of stormwater. Best management practices will be required to prevent contamination of stormwater and subsequent runoff during site cleanup construction and implementation.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.
Site cleanup is not expected to result in waste materials entering groundwater or surface waters. The Ecology approved cleanup is expected to follow best management practices to prevent contamination of groundwater and surface water.
- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.
No
- a. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:
Site cleanup is not expected to result in waste materials entering groundwater or surface waters. The Ecology approved cleanup is expected to follow best management practices to prevent contamination of groundwater and surface water.

4. **Plants** [\[help\]](#)

- a. Check the 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
 Orchards, vineyards or other permanent crops.
 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. Site cleanup activities will be conducted on existing impervious surfaces.
- c. List threatened and endangered species known to be on or near the site.
None.
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Not needed.
- e. List all noxious weeds and invasive species known to be on or near the site.

None.

5. **Animals** [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

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

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

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

This is in a commercial and light industrial area. N/A

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

None

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

No

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

N/A. Area is completely paved.

- e. List any invasive animal species known to be on or near the site.

None.

6. **Energy and Natural Resources** [\[help\]](#)

- 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.

Electrical - to operate the groundwater pumps and vapor intrusion mitigation system.

Gasoline/Diesel - temporarily to install additional groundwater injection points and monitoring wells.

- 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** [\[help\]](#)

- 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.

The proposed cleanup technology for the site utilizes injection of a solid slurry of EHC in water into the underlying groundwater that biologically and chemically reduces the chlorinated solvent contaminants. There is the potential for spills of the EHC slurry. There is also a potential for spills of hydraulic oil or fuel oil during installation of the injection and monitoring wells. The Ecology approved site cleanup work plans shall include management practices that minimize this spill potential and contingency actions if a spill does occur.

- 1) Describe any known or possible contamination at the site from present or past uses.
The site subsurface soil and groundwater is contaminated with chlorinated solvents from past historical use.
- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None.
- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
Very limited quantities (< 5 gallons) of gasoline or diesel may be stored at the site to power a generator during well installation.
- 4) Describe special emergency services that might be required.
None required: field staff will be trained in the management and handling of contaminated groundwater and chemicals used for EHC. GE will prepare a field health and safety plan for all site workers.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
GE will prepare a field health and safety plan for all site workers based on the chemicals used in the EHC groundwater injections and sampling of contaminated groundwater.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.
- 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.
Short-term: Drill rig operation during the installation of groundwater injection points and groundwater monitoring wells, and pumping equipment during the injection of EHC solutions into the subsurface are expected to generate noise. Well installation and injection equipment will be used during the first month cleanup construction phase, and then intermittently thereafter. Work is expected to occur mostly during daylight hours.
- 3) Proposed measures to reduce or control noise impacts, if any:

Measures are not proposed because of the short-term nature of the noise during well installation and EHC solution injection into the subsurface.

8. Land and Shoreline Use [\[help\]](#)

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.
Commercial and light industrial. One residential home in the area. Project will not affect current land use.
- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?
Not farmland or forest land. N/A.
- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
Not farmland or forest land. N/A.
- c. Describe any structures on the site.
There are several office buildings on the site and adjacent properties.
- d. Will any structures be demolished? If so, what?
No.
- e. What is the current zoning classification of the site?
Commercial and light industrial use.
- f. What is the current comprehensive plan designation of the site?
Commercial and light industrial use.
- g. If applicable, what is the current shoreline master program designation of the site?
N/A.
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No.
- i. Approximately how many people would reside or work in the completed project?
No people living in on-site buildings. On-site office buildings currently holds approximately 100 workers.
- j. Approximately how many people would the completed project displace?
None.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
N/A.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
N/A. Site will remain as commercial and light industrial use.
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:
N/A.

9. Housing [\[help\]](#)

- 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:
N/A

10. Aesthetics [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
No structures proposed for this cleanup project.
- b. What views in the immediate vicinity would be altered or obstructed?
None
- c. Proposed measures to reduce or control aesthetic impacts, if any:
None required.

11. Light and Glare [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
N/A
- 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:

N/A

12. Recreation [\[help\]](#)

- 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:
N/A

13. Historic and cultural preservation [\[help\]](#)

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.
No
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.
No
- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.
N/A
- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.
N/A

14. Transportation [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.
South Dawson Street, Third Avenue South and Second Avenue South. Public access will not be impacted.
- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?
Yes. Nearest transit stop (bus stop) is two blocks away.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?
N/A.
- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).
No
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?
During site cleanup, injection point and monitoring well construction, approximately three or four vehicular trips per day would be required, all during 8am to 5pm. After site construction, very little vehicular trips per day are required for cleanup monitoring, approximately 1 or 2 vehicular trips per week.
- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.
No.
- h. Proposed measures to reduce or control transportation impacts, if any:
None proposed due to the short term and limited nature for vehicular trips to the cleanup site.

15. Public Services [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.
No
- b. Proposed measures to reduce or control direct impacts on public services, if any.
N/A

16. Utilities [\[help\]](#)

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

- 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.
No change in utilities at the site. For utilities available at the project see 16a above.

C. Signature [\[HELP\]](#)

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:  _____

Name of signee: Raman Iyer

Position and Agency/Organization

Section Manager
Washington State Department of Ecology,
Hazardous Waste and Toxics Reduction

Date Submitted: July 26, 2018

D. Supplemental sheet for nonproject actions [\[HELP\]](#)

(IT IS NOT NECESSARY to 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; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

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

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

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

Proposed measures to protect or conserve energy and natural resources are:

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?

Proposed measures to protect such resources or to avoid or reduce impacts are:

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?

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

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

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

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