

NEW TEXT IS SHOWN IN UNDERLINE AND DELETIONS OF CURRENT TEXT ARE SHOWN IN ~~STRIKEOUT~~. THIS DRAFT INCLUDES ONLY CHAPTERS AND SECTIONS OF CODE WITH PROPOSED AMENDMENTS AND SOME SURROUNDING SECTIONS FOR CONTEXT. CODE SECTIONS NOT INCLUDED IN THIS DRAFT WOULD NOT BE AMENDED.

CHAPTER 19.1200

SOLAR ACCESS PROTECTION

19.1201 PURPOSE

19.1201.1 The purpose of this chapter is:

- A. To orient new lots and parcels to allow utilization ~~provide solar access protection to new development in subdivisions, new and remodeled single-family homes, structures within single-family zoning districts, and homes which make beneficial use of solar energy;~~
- B. To promote energy conservation and the effective use of the sun as a renewable resource;
- C. To implement provisions of the Milwaukie Comprehensive Plan encouraging use of solar energy;
- D. To provide a means of encouraging investment in solar design and solar equipment.

19.1203.6 Protection from Future Shade

~~Structures and nonexempt vegetation must comply with Section 19.1204 on all lots in a development subject to Section 19.1203, including lots for which exemptions or adjustments to Section 19.1203 have been granted.~~

The applicant shall file a note on the plat or other documents in the office of the County Recorder binding the applicant and subsequent purchasers to comply with the future shade protection standards in Subsection 19.1203.6. The City shall be made a party of any covenant or restriction created to enforce any provision of this section. The covenant or restriction shall not be amended without written City approval.

19.1204 SOLAR BALANCE POINT

19.1204.1 Purpose

~~The purposes of this section are to promote the use of solar energy, to minimize shading of structures by structures and accessory structures, and, where applicable, to minimize shading of structures by trees. Decisions related to this section are intended to be ministerial.~~

19.1204.2 Applicability

~~This section applies to an application for a building permit for all structures in single-family zones and all single-family detached structures in any zone, except to the extent the Director finds the applicant has shown that one or more of the conditions listed in Subsection 19.1204.5 or 6 exists, and exemptions or adjustments are warranted. In addition, nonexempt vegetation planted on lots subject to the provisions of Subsection 19.1203.6 shall comply with the shade point height standards as provided in Subsections 19.1204.5 and 6 below.~~

19.1204.3 Solar Site Plan Required

~~An applicant for a building permit for a structure subject to this section shall submit a site plan that shows:~~

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- A. ~~The maximum shade point height allowed under Subsection 19.1204.4;~~
- B. ~~If the maximum shade point height is adjusted pursuant to Subsection 19.1204.4.A.2, the average elevation of the rear property line;~~
- C. ~~The location of the shade point, its height relative to the average elevation of the front lot line or the elevation at the midpoint of the front lot line, and its orientation relative to true south; and, if applicable,~~
- D. ~~The solar balance point for the structure as provided in Subsection 19.1204.8.~~

19.1204.4 Maximum Shade Point Height Standard

The height of the shade point shall comply with either Subsection 19.1204.4.A or B below.

A. Basic Requirement

1. The height of the shade point shall be less than or equal to the height specified in Table 19.1204.4 or computed using the following formula. The height of the shade point shall be measured from the shade point to either the average elevation at the front lot line or the elevation at the midpoint of the front lot line. If necessary, interpolate between the 5-ft dimensions listed in Table 19.1204.4.

$$H = \frac{(2 \times SRL) - N + 150}{5} \quad \text{Where:}$$

H	=	The maximum allowed height of the shade point (see Figures 19.1202.1-5 and 19.1202.1-6)
SRL	=	Shade reduction line (the distance between the shade point and the northern lot line) (see Figure 19.1202.1-7); and
N	=	The north-south lot dimension, provided that a north-south lot dimension more than 90 ft shall use a value of 90 ft for this section.

Table 19.1204.4 Maximum Permitted Shade Point Height (in feet)													
Distance to Shade Reduction Line from Northern Lot Line (in feet)	North-South Lot Dimension (in feet)												
	100+	95	90	85	80	75	70	65	60	55	50	45	40
70	40	40	40	41	42	43	44						
65	38	38	38	39	40	41	42	43					
60	36	36	36	37	38	39	40	41	42				
55	34	34	34	35	36	37	38	39	40	41			
50	32	32	32	33	34	35	36	37	38	39	40		

45	30	30	30	31	32	33	34	35	36	37	38	39	
40	28	28	28	29	30	31	32	33	34	35	36	37	38
35	26	26	26	27	28	29	30	31	32	33	34	35	36
30	24	24	24	25	26	27	28	29	30	31	32	33	34
25	22	22	22	23	24	25	26	27	28	29	30	31	32
20	20	20	20	21	22	23	24	25	26	27	28	29	30
15	18	18	18	19	20	21	22	23	24	25	26	27	28
10	16	16	16	17	18	19	20	21	22	23	24	25	26
5	14	14	14	15	16	17	18	19	20	21	22	23	24

2. Provided, the maximum allowed height of the shade point may be increased 1 ft above the amount calculated using the formula or Table 19.1204.4 for each ft that the average grade at the rear property line exceeds the average grade at the front property line.

B. Performance Option

The proposed structure, or applicable nonexempt vegetation, will shade not more than 20% of the south-facing glazing of existing habitable structure(s), or, where applicable, the proposed structure or nonexempt vegetation comply with Subsections 19.1203.3.B or C. If Subsection 19.1203.3.B Protected Solar Building Line is used, nonexempt trees and the shade point of structures shall be set back from the protected solar building line 2.5 ft for every 1 ft of height of the structure or of the mature height of nonexempt vegetation over 2 ft.

19.1204.5 Exemption from the Maximum Shade Point Height Standard

The Director shall exempt a proposed structure or nonexempt vegetation from Subsections 19.1204.3 and 4 if the applicant shows that one or more of the conditions in this subsection exist, based on plot plans or plats, corner elevations or other topographical data, shadow patterns, sun charts or photographs, or other substantial evidence submitted by the applicant.

A. Exempt Lot

When created, the lot was subject to Subsection 19.1203.3 and was not subject to the provisions of Subsection 19.1203.6.

B. Preexisting Shade

The structure or applicable nonexempt vegetation will shade an area that is shaded by one or more of the following:

1. An existing or approved building or structure;
2. A topographic feature;
3. A nonexempt tree that will remain after development of the site. It is assumed a tree will remain after development if it: is situated in a building setback required by local law; is part of a developed area or landscaping required by local law, a public park or landscape strip, or legally reserved open space; is in or separated from the

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~~developable remainder of a parcel by an undevelopable area or feature; or is on the applicant's property and not affected by the development. A duly executed covenant also can be used to preserve trees causing such shade.~~

C. ~~Slope~~

~~The site has an average slope that exceeds 20% in a direction greater than 45 degrees east or west of true south based on a topographic survey by a licensed professional land surveyor, USGS or other officially recognized topographic information.~~

D. ~~Insignificant Benefit~~

~~The proposed structure or nonexempt vegetation shades one or more of the following:~~

- ~~1. An undevelopable area;~~
- ~~2. The wall of an unheated space, such as a typical garage;~~
- ~~3. Less than 20 sq ft of south-facing glazing;~~
- ~~4. An undeveloped lot, other than a lot that was subject to Section 19.1203, where:
 - ~~a. There are at least 4 single-family detached or attached homes within 250 ft of the lot within the same subdivision or a phase of the subdivision; and~~
 - ~~b. A majority of the homes identified in Subsection 19.1204.5.D.4.a above have an average of less than 20 sq ft of south-facing glazing.~~~~

E. ~~Public Improvement~~

~~The proposed structure is a publicly owned improvement.~~

19.1204.6 Adjustments to the Maximum Shade Point Height Standard

~~The Director shall increase the maximum permitted height of the shade point determined using Subsection 19.1204.4 to the extent he or she finds the applicant has shown one or more of the following conditions exists, based on plot plans or plats, corner elevations or other topographical data, shadow patterns, sun charts or photographs, or other substantial evidence submitted by the applicant.~~

A. ~~Physical Conditions~~

~~Physical conditions preclude development of the site in a manner that complies with Subsection 19.1204.4, due to such things as a lot size less than 3,000 sq ft, unstable or wet soils, or a drainage way, public or private easement, or right-of-way.~~

B. ~~Conflict Between the Maximum Shade Point Height and Allowed Shade on the Solar Feature Standards~~

~~A proposed structure may be sited to meet the solar balance point standard described in Subsection 19.1204.8, or be sited as near to the solar balance point as allowed by Subsection 19.1204.8, if:~~

- ~~1. When the proposed structure is sited to meet the maximum shade point height standard determined using Subsection 19.1204.4, its solar feature will potentially be shaded as determined using Subsection 19.1204.7; and~~
- ~~2. The application includes a form provided for that purpose by the City that:
 - ~~a. Releases the applicant from complying with Subsection 19.1204.4 and agrees that the proposed structure may shade an area otherwise protected by Subsection 19.1204.4;~~~~

- b. Releases the City from liability for damages resulting from the adjustment; and
 - c. Is signed by the owner(s) of the properties that would be shaded by the proposed structure more than allowed by the provisions of Subsection 19.1204.4.
3. Before the City issues a permit for a proposed structure for which an adjustment has been granted pursuant to this Subsection 19.1204.6.B, the applicant shall file the form, provided for in Subsection 19.1204.6.B.2 above, in the office of the County Recorder with the deeds to the affected properties.

19.1204.7 Analysis of Allowed Shade on Solar Feature

- A. An applicant may, but is not required to, perform the calculations in or comply with the standards of this section.
- B. Applicants are encouraged to design and site a proposed habitable structure so that the lowest height of any solar feature(s) will not be shaded by buildings or nonexempt trees on lot(s) to the south. The applicant should complete the following calculation procedure to determine if solar feature(s) of the proposed structure will be shaded. To start, the applicant should choose which of the following sources of shade originating from adjacent lot(s) to the south to use to calculate the maximum shade height at the north property line:
 - 1. Existing structure(s) or nonexempt tree(s); or
 - 2. The maximum shade that can be cast from future buildings or nonexempt trees, based on Table 19.1204.7.B. If the lot(s) to the south can be further divided, then the north-south dimension is assumed to be the minimum lot width required for a new lot in that zone.

Table 19.1204.7.B Maximum Permitted Shade Height (in feet)													
North-south lot dimension of adjacent lot(s) to the south	400	95	90	85	80	75	70	65	60	55	50	45	40
Allowed shade height at the north property line of adjacent lot(s) to south	12	12	12	13	14	15	16	17	18	19	20	21	22

- C. The height of the lowest point of any solar feature of the proposed structure is calculated with respect to either the average elevation or the elevation at the midpoint of the front lot line of the lot to the south.
- D. The applicant can determine the height of the shadow that may be cast upon the applicant's solar feature by the source of shade selected in Subsection 19.1204.7.B by using the following formula or Table 19.1204.7.D:
 $SFSH = SH - (SGL \div 2.5)$ — Where:

SFSH = The allowed shadow height on the solar feature (see Figure 19.1204.7);
 SH = The height of the shade at the northern lot line of lot(s) to the south as determined in Subsection 19.1204.7.B above; and

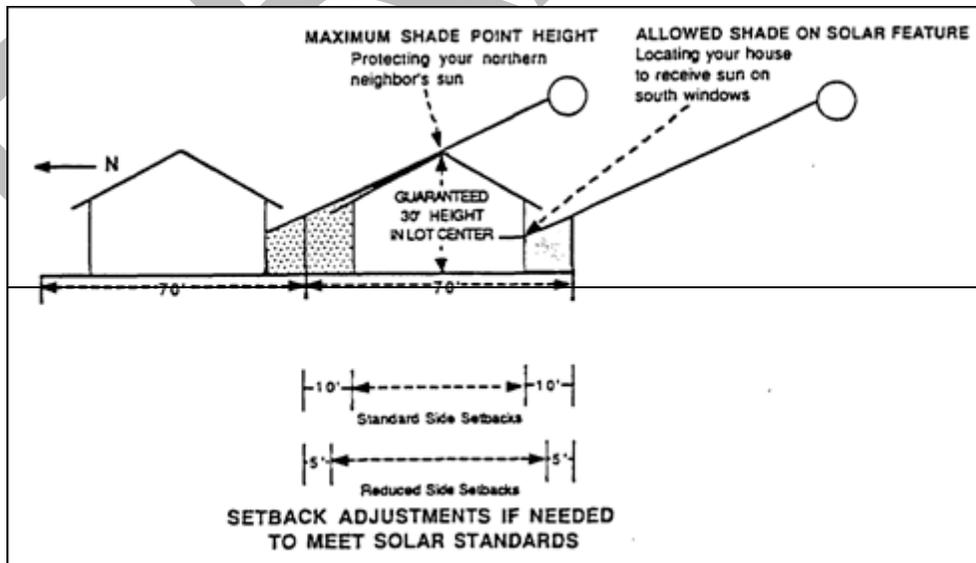
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SGL = The solar gain line (the distance from the solar feature to the northern lot line of adjacent lot(s) to the south) (see Figure 19.1202.1-10).

Table 19.1204.7.B may be used to determine "SH" in the above formula.

Table 19.1204.7.D Maximum Permitted Height of Shadow at Solar Feature (in feet)											
Distance from Solar Gain Line to Lot Line (in feet)	Allowed Shade Height at Northern Lot Line of Adjacent Lot(s) to the South (in feet)										
	22	21	20	19	18	17	16	15	14	13	12
50	2	4									
45	4	3	2	4							
40	6	5	4	3	2	4					
35	8	7	6	5	4	3	2	4			
30	10	9	8	7	6	5	4	3	2	4	
25	12	11	10	9	8	7	6	5	4	3	2
20	14	13	12	11	10	9	8	7	6	5	4
15	16	15	14	13	12	11	10	9	8	7	6
10	18	17	16	15	14	13	12	11	10	9	8
5	20	19	18	17	16	15	14	13	12	11	10

**Figure 19.1204.7
Solar Balance Point Standard**



E. If allowed shade height on the solar feature calculated in Subsection 19.1204.7.D above is higher than the lowest height of the solar feature calculated in Subsection 19.1204.7.C

above, the applicant shall be encouraged to consider changes to the house design or location which would make it practical to locate the solar feature so that it will not be shaded in the future.

19.1204.8 Solar Balance Point

If a structure does not comply with maximum shade point height standard in Subsection 19.1204.4 and the allowed shade on a solar feature standard in Subsection 19.1204.7, then the solar balance point of the lot shall be calculated. The solar balance point is the point on the lot where a structure would be the same from complying with both of these standards.

19.1204.9 Yard Setback Adjustment

The City shall grant an adjustment to the side, front, and/or rear yard setback requirement(s) by up to 50% if necessary to build a proposed structure so it complies with either the shade point height standard in Subsection 19.1204.4, the allowed shade on a solar feature standard in Subsection 19.1204.7, or the solar balance point standard in Subsection 19.1204.8. This adjustment is not intended to encourage reductions in available solar access or unnecessary modification of setback requirements and shall apply only if necessary for a structure to comply with the applicable provisions of this chapter.

A. R-1, R-2, R-2.5, R-3, R-5, and R-7 Zones

- 1. A front yard setback may be reduced to not less than 10 ft.
- 2. A rear yard setback may be reduced to not less than 10 ft.
- 3. A side yard setback may be reduced to not less than 3 ft.

B. R-10 Zone

- 1. A front yard setback may be reduced to not less than 15 ft.
- 2. A rear yard setback may be reduced to not less than 15 ft.
- 3. A side yard setback may be reduced to not less than 5 ft.

19.1204.10 Application and Review Process

An application for a building permit shall include the information necessary to meet the provisions of Subsection 19.1204.4, and shall be processed pursuant to Section 19.1004 Type I Review. The Building Official shall refer the plan to the Director for review and approval prior to issuing a building permit, or the Director may delegate this responsibility for review and approval to the Building Official.

19.1205 SOLAR ACCESS PERMIT

19.1205.1 Purpose

The purpose of this section is to protect solar access to solar features on lots designated or used for a single-family detached dwelling under some circumstances. It authorizes owners of such lots to apply for a certification permit that, if granted, prohibits solar features from being shaded by certain future vegetation on and off the permittee's site.

19.1205.2 Applicability

An owner or contract purchaser of property may apply for and/or be subject to a solar access permit for a solar feature if that property is in a single-family zone or is (or will be) developed with a single-family dwelling. The City's decision to grant or deny a solar access permit is intended to be ministerial.

19.1205.3 Approval Standards for a Solar Access Permit

The Director shall approve an application for a solar access permit if the applicant shows:

- A. The information contained in the application is complete and accurate; and
- B. Nonexempt vegetation on the applicant's property does not shade the solar feature, as demonstrated by the site plan submitted and the specific information required in Subsection 19.1205.5.

19.1205.4 Duties Created by Solar Access Permit

- A. A party to whom the City grants a solar access permit shall:
 - 1. Record the permit, legal descriptions of the properties affected by the permit, the solar access height limit, and the site plan required in Subsection 19.1205.5.C, with such modifications as required by the Director, in the office of the County Recorder with the deeds to the properties affected by it, indexed by the names of the owners of the affected properties, and shall pay the fees for such filing;
 - 2. Install the solar feature in a timely manner as provided in Subsection 19.1205.8; and
 - 3. Maintain nonexempt vegetation on the site so it does not shade the solar feature.
- B. An owner of property burdened by a solar access permit shall be responsible and pay all costs for keeping nonexempt vegetation from exceeding the solar access height limit. However, vegetation identified as exempt on the site plan required in Subsection 19.1205.5.C, vegetation an owner shows was in the ground on the date an application for a solar access permit is filed, and solar friendly vegetation are exempt from the solar access permit.

19.1205.5 Application Contents

An application for a solar access permit shall contain the following information:

- A. A legal description of the applicant's lot and a legal description, owner's names, and owner's addresses for lots all or a portion of which are within 150 ft of the applicant's lot and 54 degrees east and west of true south, measured from the east and west corners of the applicant's south lot line. The records of the County Assessor's office shall be used to determine who owns property for purposes of an application. The failure of a property owner to receive notice shall not invalidate the action if a good faith attempt was made to notify all persons who may be affected.
- B. A scaled plan of the applicant's property showing:
 - 1. Vegetation in the ground as of the date of the application if, when mature, that vegetation could shade the solar feature; and
 - 2. The approximate height above grade of the solar feature, its location, and its orientation relative to true south.
- C. A scaled plan of the properties on the list, required in Subsection 19.1205.5.A above, showing:
 - 1. Their approximate dimensions; and
 - 2. The approximate location of all existing vegetation on each property that could shade the solar feature(s) on the applicant's property.
- D. For each affected lot, the requested solar access height limit. The solar access height limit is a series of contour lines establishing the maximum permitted height for nonexempt

vegetation on lots affected by a solar access permit (see Figure 19.1202.1-9). The contour lines begin at the bottom edge of a solar feature for which a permit is requested and rise in 5-ft increments at an angle to the south not less than 21.3 degrees from the horizon and extend not more than 54 degrees east and west of true south. Notwithstanding the preceding, the solar access height limit at the northern lot line of any lot burdened by a solar access permit shall allow nonexempt vegetation on that lot whose height causes no more shade on the benefited property than could be caused by a structure that complies with the solar balance point provisions for existing lots.

- ~~E. A fee as required by the City.~~
- ~~F. If available, a statement signed by the owner(s) of some or all of the property(ies) to which the permit will apply if granted, verifying that the vegetation shown on the plan, submitted pursuant to Subsection 19.1205.5.C above, accurately represents vegetation in the ground on the date of the application. The City shall provide a form for that purpose. The signed statements provided for herein are permitted but not required for a complete application.~~

19.1205.6 Application Review Process

- ~~A. Unless waived by the Director, prior to filing an application for a solar access permit, an applicant or applicant's representative shall pay the fee required by Subsection 19.1205.5.E and shall meet with the Director or designee to discuss the proposal and the requirements for an application. If a meeting is held, the Director shall convey a written summary of the meeting to the applicant by mail within 5 calendar days of the meeting.~~
- ~~B. After the preapplication meeting is held or waived, the applicant may file an application containing the information required in Subsection 19.1205.5 above.~~
- ~~C. Within 7 calendar days after an application is filed, the Director or designee shall determine whether the application is complete and, if it is not complete, notify the applicant in writing specifying what is required to make it complete.~~
- ~~D. Within 14 calendar days after the Director decides an application for a solar access permit is complete, the Director or designee shall issue a written decision tentatively approving or denying the request, together with reasons therefor, based on the standards of Subsection 19.1205.3.

 - ~~1. If the tentative decision is to deny the permit, the Director shall mail a copy of the decision to the applicant.~~
 - ~~2. If the tentative decision is to approve the permit, and the owners of all affected properties did verify the accuracy of the plot plan as authorized under Subsection 19.1205.5.F, the Director shall mail a copy of the decision to the applicant and affected parties by certified mail, return receipt requested.~~
 - ~~3. If the tentative decision is to approve the permit, and the owners of all affected properties did not verify the accuracy of the plot plan as permitted under Subsection 19.1205.5.F, the Director shall send a copy of the tentative decision by certified mail, return receipt requested, to the applicant and to the owners of affected properties who did not sign the verification statement, pursuant to Subsection 19.1205.5.F. If the Director determines that the owners of a given property affected by the permit are not the occupants of that property, then the Director also shall send a copy of the notice to the occupants of such property.

 - ~~a. The notice sent to the applicant shall include a sign that says a solar access permit for the property has been tentatively approved, and that informs readers where to obtain more information about it. The applicant shall be instructed to conspicuously~~~~~~

~~post the sign so it is visible from right-of-way adjoining the property, and to sign and return a form provided by the Director certifying that the sign was posted as provided herein not more than 14 days after the tentative decision was mailed.~~

~~b. The notice shall include the plot plans required in Subsections 19.1205.5.B and C above, the proposed solar access height limits, and duties created by the permit.~~

~~c. The notice shall request recipients to verify that the plot plan shows all nonexempt vegetation on the recipient's property, and to send the Director comments in writing within 14 calendar days after the tentative decision is mailed if the recipient believes the applicant's plot plan is inaccurate.~~

~~4. Within 28 days after notice of a tentative decision is mailed to affected parties, the Director shall consider responses received from affected parties and/or an inspection of the site, modify the plot plan and the permit to be consistent with the accurate information, and issue a final decision. The Director shall send a copy of the permit and solar access height limits to the owners of each property affected by the permit by certified mail, return receipt requested.~~

~~E. If the application is approved, and before the permit is effective, the applicant shall record the permit, associated solar access height limits, legal descriptions for the affected properties, and the site plan required in Subsection 19.1205.5.C, with such modifications as required by the Director, in the office of the County Recorder with the deeds to the properties affected by it.~~

19.1205.7 Permit Enforcement Process

A. Enforcement Request

~~A solar access permittee may request the City to enforce the solar access permit by providing the following information to the Director:~~

- ~~1. A copy of the solar access permit and the plot plans submitted with the permit;~~
- ~~2. The legal description of the lot(s) on which alleged nonexempt vegetation is situated, the address of the owner(s) of that property, and a scaled site plan of the lot(s) showing the nonexempt vegetation; and~~
- ~~3. Evidence the vegetation violates the solar access permit, such as a sun chart, photograph, shadow pattern, and/or photographs.~~

B. Enforcement Process

~~If the Director determines the request for enforcement is complete, they shall initiate an enforcement action pursuant to applicable provisions of the Milwaukie Municipal Code. The Director shall not enforce the permit provisions where a property owner can show that vegetation was in the ground on the date the permit application was filed with the City.~~

19.1205.8 Expiration and Extension of a Solar Access Permit

A. Expiration

~~Every permit issued by the Director under the provisions of this section shall expire if the construction of the solar feature protected by such permit is not commenced within 180 days from the date of such permit, or if the construction of the solar feature protected by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained to do so, and the fee therefor shall be half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans~~

~~and specifications for such work, and provided further that such suspension or abandonment has not exceeded 1 year. If the permittee does not show construction of the solar feature will be started within 180 days from the date of the permit or the extension, or if the solar feature is removed, the Director shall terminate the permit by recording a notice of expiration in the office of the County Recorder with the deeds to the affected properties.~~

~~B. Extension~~

~~Any permittee holding an unexpired permit may apply for an extension of the time within which he or she may commence work under that permit. The permittee shall state reasons that can be deemed to be good and satisfactory by the Director. The Director may extend the time for action by the permittee for a period not exceeding 180 days, upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.~~

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