



Institutional Controls under TRRP

Overview of this Document

Objectives: This guidance describes the process to apply institutional controls as required by the Texas Risk Reduction Program.

Audience: Regulated Community and Environmental Professionals

References: The Texas Risk Reduction Program (TRRP) rule, together with conforming changes to related rules, is contained in Title 30 Texas Administrative Code (TAC) Chapter 350. The TRRP rule was initially published in the September 17, 1999 Texas Register (24 TexReg 7413-7944). The rule was amended in 2007 (effective March 19, 2007; 32 TexReg 1526-1579) and 2009 (effective March 19, 2009; 34 TexReg 1861-1872).

Find links for the TRRP rule and preamble, Tier 1 PCL tables, and other TRRP information at: www.tceq.state.tx.us/remediation/trrp/.

TRRP guidance documents undergo periodic revision and are subject to change. Referenced TRRP guidance documents may be in development. Links to current versions are at: www.tceq.state.tx.us/remediation/trrp/guidance.html.

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Introduction

The Texas Risk Reduction Program (TRRP) requires the placement of institutional controls (e.g., deed notices or restrictive covenants) on affected property in different circumstances as part of completing a response action. In its simplest form, an institutional control (IC) is a legal document that is recorded in the county deed records. In certain circumstances, local zoning or ordinances can serve as an IC. The fundamental purposes of an IC are to:

- Provide a permanent notice to subsequent owners/operators that residual chemicals of concern (COCs) are present at the affected property above the protective concentration level (PCL), and/or
- Impose conditions on the future use of the affected property in order to ensure protective use of the property.

This guidance document is organized to address the following topics:

- Triggers for institutional controls
- Allowable institutional controls
- Content requirements for institutional controls
- Landowner consent requirements and extenuating circumstances
- Institutional control models

Note that this guidance does not address the §350.55 notification requirements. Guidance for those requirements is provided in TCEQ guidance document *Notification Requirements* (RG-366/TRRP-17). In addition, this guidance does not address property access issues, which must be negotiated between the person and any affected landowner.

Acronyms

Acronym	Description
COC	chemical of concern
IC	institutional control
FOA	Facility Operations Area
PCL	protective concentration level
PCLE	protective concentration level exceedance
PMZ	plume management zone
RACR	Response Action Completion Report
RAER	Response Action Effectiveness Report
RAP	Response Action Plan
SIN	Self Implementation Notice
TCEQ	Texas Commission on Environmental Quality
TI	technical impracticability
TRRP	Texas Risk Reduction Program
VCP	Voluntary Cleanup Program
WCU	waste control unit

Overview

The general requirement is that anytime an environmental medium (e.g., soil or groundwater) that is affected with a COC is not removed or decontaminated to the residential-based PCLs, an IC will be required. ICs may also be required for some special situations. This guidance explains the IC requirements and should aid compliance with those requirements.

Figure 1 illustrates a process that can be followed to comply with the IC requirements. Each decision step in Figure 1 is addressed in detail in later sections of this guidance. In short, the process involves four major steps:

- Determining if an IC is required
- Determining the type and content of the IC that is required
- Obtaining landowner consent
- Filing the TCEQ-approved IC

The first step is to determine if there are any situations at the affected property that trigger the need for an IC (Figure 1). Evaluate each trigger for each individual property comprising the affected property. The *Triggers* section of this document discusses the different situations that trigger an IC. If no IC requirements are triggered, then no IC is required (Figure 1). If an IC requirement is triggered, then the next step is to determine the allowable type of an IC to be filed.

The *Allowable Institutional Controls* section of this guidance discusses the types of ICs allowed by TRRP. Typically, an IC must be filed in the property deed records. However, if there is equivalent zoning or governmental ordinance that satisfies the IC requirement (Figure 1), then there is no need to file an IC in the property deed records. However, the person must provide proof that the zoning or ordinance meets the requirements for acceptability that are explained in this guidance. If there is no equivalent zoning or ordinance, then the IC in the form of either a deed notice or a restrictive covenant must be filed as a notice or restrictive covenant in the property deed records (Figure 1). As explained in more detail later, the determination of whether a deed notice or restrictive covenant is required is generally dependent on the “innocent owner/operator” status for the individual properties.

Once the appropriate type of IC is determined, the IC must be written to include the required minimum information. Please see the *Content Requirements* section of this document for discussion of what information must be provided to address the different triggers. Also, model deed notice and restrictive covenant language is provided in the Institutional Control Models section of this document. Insert text is provided in Appendices A and B for the model deed notice and restrictive covenant,

respectively. While the person is not required to utilize this model language, the TCEQ has determined that this language meets the rule requirements.

The next step of the process is to seek landowner consent for the filing of the IC. As illustrated in Figure 1, depending on whether the landowner provides consent or not, there are different courses that will need to be followed. See the section of this document titled *Landowner Consent Requirements and Extenuating Circumstances* for detailed information on seeking landowner consent and potential options that may be pursued if landowner consent is not obtained.

The final step in the process is to provide proof to TCEQ that the TCEQ-approved IC has been properly filed (Figure 1). The final sections of this document discuss the filing of the IC and what needs to happen if the terms of the IC are subsequently violated.

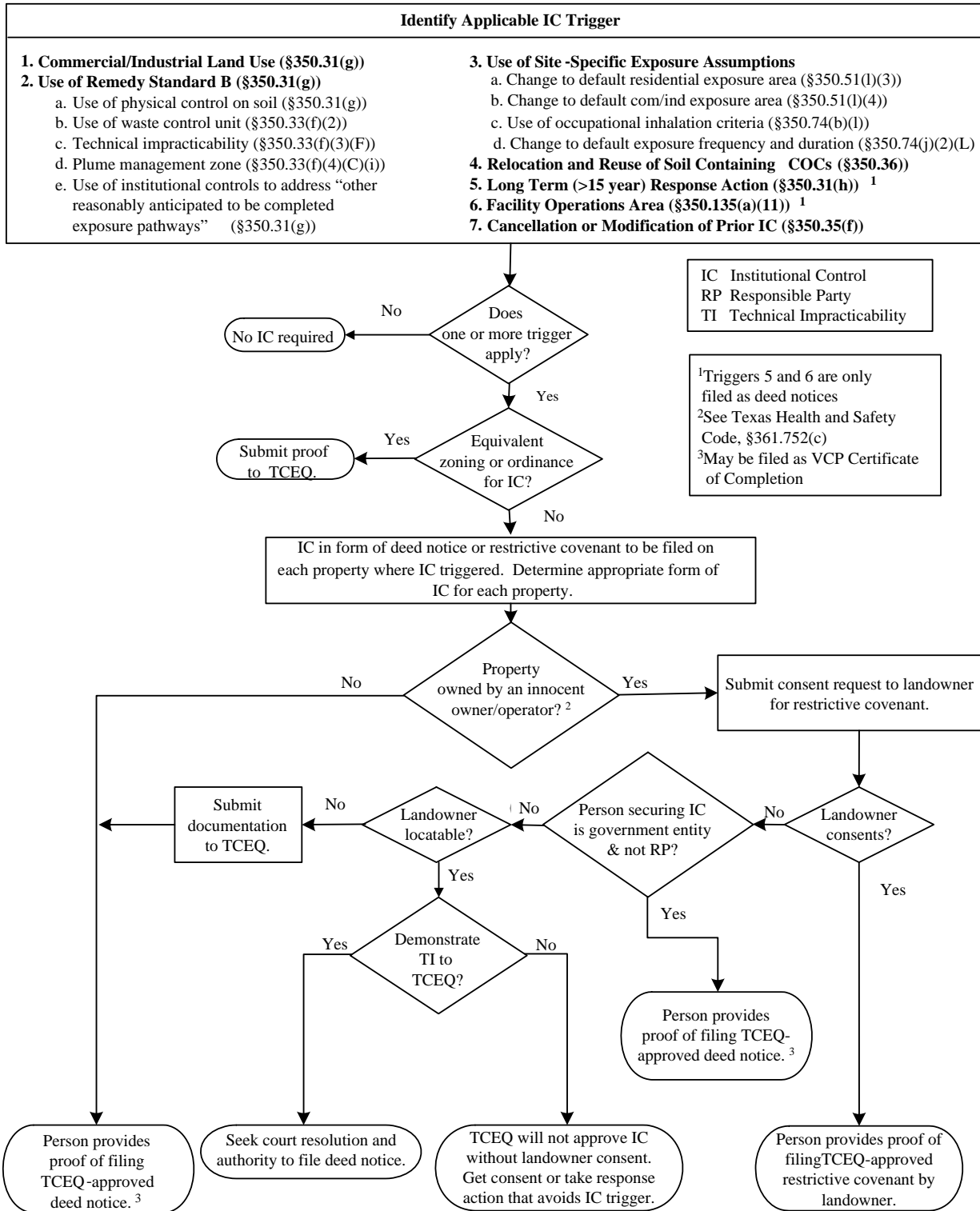


Figure 1 Compliance overview.

Triggers

Figure 1 identifies the specific situations for which an IC must be created and maintained. At any given affected property, several different triggers may be set. Each applicable situation must be addressed; however, they may be combined into a single IC, if each is addressed with the appropriate degree of specificity. Each trigger is discussed below.

Commercial/Industrial Land Use

PCLs must be set to be protective for residential or commercial/industrial land use. Anytime commercial/industrial land use is used for any part of an affected property (on-site or off-site), an IC (deed notice or restrictive covenant as applicable) is required to notify parties that the affected property is protective for commercial/industrial land use, but that it may not be protective for residential land use. If a portion of an affected property is classified as commercial/industrial use, the person must establish an IC for that portion of the affected property. See §350.31(g), §350.37(a), and §350.53.

Note that the definition of residential land use [§350.4(a)(74)] includes not only dwellings, but also nursing homes, hospitals, day care facilities, educational facilities and parks. In some instances, certain attributes of property use at commercial/industrial properties could be residential in nature (e.g., playgrounds and playscapes) and thus those portions of property would also qualify as residential land use. See §350.4(a)(13).

Box 1. Aesthetic Conditions.

Note: The TCEQ may require use of an IC even where no health-based PCLs are exceeded if the TCEQ determines that a COC concentration adversely impacts environmental quality, public welfare or safety, presents objectionable characteristics (e.g., taste or odor), or makes a natural resource unfit for use. If such “aesthetic condition” is addressed via a physical control under Remedy Standard B and the aesthetic condition is the sole trigger for a response action requirement (i.e., there is no other human health or ecological hazard remaining), then the TCEQ may waive the IC requirement. The TCEQ will evaluate such waiver requests by considering the seriousness, probable longevity of the matter, and suitability of the proposed remedy with the landowner in question in order to site-specifically determine whether or not ICs are warranted. For more specific information on Remedy Standard B, see TCEQ guidance document *Application of Remedy Standards A and B* (RG-366/TRRP-28) and *Soil and Groundwater Response Objectives* (RG-366/TRRP-29). See §350.31(g) and §350.74(i).

Use of Remedy Standard B

Remedy Standard B allows the use of physical and institutional controls to be used in combination with or in lieu of removal or decontamination of the COCs to block exposure or to control COCs such that exposure does not occur. Anytime Remedy Standard B is used, an IC must be filed in

order to provide future notice of the terms of any particular conditions or actions that must be maintained to keep the property protective. However, if any portion of the affected property undergoes a removal or decontamination response action that achieves compliance with residential PCLs, then an IC might not be warranted for that **portion** of the affected property.

Use of Physical Control on Soil

Physical controls, such as impervious surface caps, parking lots or building foundations (including houses), are examples of physical controls that can be used to address soil protective concentration level exceedance (PCLE) zones. In some instances the in-situ soils themselves could be used as a physical control. For example, a sufficient thickness of soils may already overlay a soil PCLE zone so as to serve as an effective physical control. In such cases, the overlaying soils could be formalized as a physical control, provided that soil cap can be demonstrated to be effective against the exposure pathway of concern. Physical controls must be proposed in a Response Action Plan (RAP), and if approved by TCEQ, must be documented in an IC (deed notice or restrictive covenant, as applicable). See §350.31(g).

Use of Waste Control Unit

A waste control unit (WCU) is a municipal or industrial solid waste landfill, including those Resource Conservation and Recovery Act regulated units closed as landfills, with a liner system (i.e., synthetic or clay) and an engineered cap, that has been closed pursuant to an approved closure plan or previous regulations, or will be created pursuant to an approved RAP. The benefit of a WCU is that, with approval, groundwater PCLs do not apply below a WCU. A WCU must be proposed as part of a RAP and, if approved by TCEQ, must be documented in an IC (deed notice or restrictive covenant, as applicable). See §350.33(f)(2).

Technical Impracticability

A technical impracticability (TI) demonstration can be submitted for TCEQ approval when groundwater COCs cannot be removed or decontaminated to the PCLs and the affected property is not otherwise potentially eligible for a plume management zone. A TI demonstration must be submitted in a RAP for TCEQ approval. If a TI demonstration is approved as part of a RAP, then the portion of the groundwater PCLE zone covered by the TI (TI zone) must be documented in an IC (deed notice or restrictive covenant, as applicable). TI demonstrations can also be submitted for soil PCLE zones. See §350.33(f)(3)(F).

Plume Management Zone

A plume management zone (PMZ) is a remedial response objective where the groundwater PCLE zone is controlled instead of removed or decontaminated, and managed to prevent human or ecological exposure to the groundwater COCs. A PMZ must be proposed in a RAP and, if approved by TCEQ, documented in an IC (deed notice or restrictive covenant, as applicable). See §350.33(f)(4)(C)(i).

Box 2. Crop Uptake.

Note that consumption of aboveground and below-ground vegetables is considered for relevant COCs for surface soil where the land use is residential, regardless of agricultural land use activity. See §350.71(c)(4).

Use of Institutional Controls to Address “Other Reasonably Anticipated to be Completed Exposure Pathways”

Section 350.71(c)(1) thru (7) lists standard exposure pathways that must be evaluated under TRRP. Because that list is not exhaustive, but only covers typical exposure pathways, §350.71(c)(8) requires the person to reasonably evaluate “other” potentially applicable exposure pathways and identify the ones that are complete or reasonably anticipated to be completed. PCLs must be evaluated for complete or reasonably anticipated to be completed exposure pathways. In some instances, an “other” exposure pathway that is not currently complete could become complete if property use significantly changes. For example, an undeveloped affected property may only warrant evaluation for the standard exposure pathways. However, if that affected property was subsequently put in agricultural use, then “other” exposure pathways may be complete that previously did not exist. In such an instance, unless the affected property is evaluated under TRRP for agricultural exposure pathways (uptake in crops or livestock, or toxicity to crops or livestock) under §350.71(c)(8), the property may not be protective for agricultural use. As another example, if the undeveloped affected property contains COCs that are a common concern for potential indoor vapor intrusion, then indoor vapor intrusion could become a complete exposure pathway at the affected property if building development occurs in the future. There may also be other reasonably anticipated to be completed exposure pathways besides agricultural use or indoor vapor intrusion at individual affected properties.

TRRP requires such potentially unprotective situations to be addressed [§350.31(a)]. Such “other reasonably anticipated to be completed exposure pathways” are identified and evaluated on a site-specific basis and they may be identified by either the person or the TCEQ. There should always be a reasonable basis for such concerns. Not every undeveloped affected property or portion of an affected property should be considered to have an agricultural or building development future. Consider the expressed intent of the landowner for future use of the property. Discuss the need to include such an IC with TCEQ as the situation presents itself.

In such instances where a significant future land use change is reasonably possible, then an IC (deed notice or restrictive covenant, as applicable) is an allowable “preventive” remedial alternative. The IC eliminates the “reasonably anticipated to be completed” threshold under Remedy Standard B. Therefore, no further response action is warranted. The use of an IC as the sole remedial response to eliminate an exposure pathway identified in compliance with §350.71(c)(8) is acceptable when:

- these pathways are not currently completed,
- the pathways can be completed only if the manner of site use is significantly changed.

Where an IC is warranted, the IC use should be proposed in a RAP for TCEQ approval. Of course, in lieu of filing an IC for these other pathways, the exposure pathways can be addressed via removal or decontamination remedies. See §350.31(g) and §350.33(b)(1).

Use of Site-Specific Exposure Assumptions

Where site-specific conditions are used to set exposure levels, such conditions must be documented in deed notices or preserved in restrictive covenants.

Change from Default Residential Exposure Area

Where statistical methods are used to determine the representative COC concentrations at a residential property for the human health exposure pathway (e.g., $^{Tot}Soil_{Comb}$), the exposure area is presumed to be no greater than 1/8 acre, or the size of the front or back yard of the affected residential lot. Demonstrating that actual use/activity patterns at the affected property encompass a larger area, not to exceed 1/2 acre for residential lots, may alter this presumption. If the base presumption is altered, an IC (deed notice or restrictive covenant, as applicable) must be put in place to ensure that the potential risks and hazards are re-evaluated if exposures are subsequently limited to smaller areas, e.g., the property is subdivided. The only exception to the need for filing an IC in this instance is if the TCEQ concurs the COC concentrations are relatively homogeneous across an area larger than 1/8 acre such that a modification of land use to a smaller area will not influence the exposure concentration. See TCEQ guidance document *Determining Representative Concentrations* (RG-366/TRRP-15) for more information on exposure areas and homogeneity of COC concentrations. See §350.51(l)(3).

Change from Default Commercial/Industrial Exposure Area

Where a person uses selected statistical methods to determine the representative COC concentrations at an affected commercial/industrial property for the human health exposure pathway (e.g., $^{Tot}Soil_{Comb}$), the exposure is presumed over an exposure area no greater than 1/2 acre. Demonstrating that actual use/activity patterns at the affected property encompass a larger area may alter this presumption. An IC (deed notice or restrictive covenant, as applicable) must be put in place to ensure that potential risks and hazards are re-evaluated if exposures are subsequently limited to a smaller area. The only exception to the need for filing an IC in this instance is if the TCEQ concurs the COC concentrations are relatively homogeneous across an area larger than 1/2 acre such that a modification of land use to a smaller area will not influence the exposure concentration. See TCEQ guidance document *Determining Representative Concentrations* (RG-366/TRRP-15) for more information on exposure areas and homogeneity of COC concentrations. See §350.51(1)(4).

Use of Occupational Inhalation Criteria

Where occupational inhalation criteria, such as Occupation Safety and Health Administration Permissible Exposure Limits or American Conference of Governmental Industrial Hygienists Threshold Limit Values, are used as inhalation risk-based exposure limits for purposes of establishing PCLs, an IC (deed notice) must be filed. See §350.74(b)(1).

Change from Default Exposure Frequency and Duration

Human-health PCLs are based on exposure scenarios reflective of duration and frequency that individuals are expected to be at a property. Standard exposure scenarios are incorporated into TRRP for residential and commercial/industrial land uses. In some instances, properties may be used less often. When commercial/industrial properties are used less often, the person can propose that less frequency or duration of exposure be used for purposes of PCL calculation. Where the Executive Director of the TCEQ (TCEQ staff are not authorized by rule to approve this) allows a variance from the default exposure factors for affected properties classified for commercial/industrial use, an IC (deed notice or restrictive covenant, as applicable) must document this variance and the resulting presumed exposure scenarios. See §350.74(j)(2)(L).

Relocation and Reuse of Soil Containing COCs

Section 350.36 provides the regulatory criteria by which soils that are undergoing or have undergone a response action under TRRP may be relocated for reuse purposes. For example, in-situ soils were affected at

Property 1. Those soils were decontaminated in-situ to commercial/industrial PCLs in order to comply with Remedy Standard A. Subsequently, those same soils are excavated and taken to Property 2 to be used as base for a new parking lot. Those soils must be demonstrated to be in compliance with Remedy Standard A or B **at the re-use location**. If either commercial/industrial land use or Remedy Standard B is relied upon at the re-use location to demonstrate compliance with TRRP, then an IC (deed notice or restrictive covenant, as applicable) must be filed for the re-use locations consistent with the IC requirements described earlier for commercial/industrial land use or Remedy Standard B. See §350.36(b)(4), (c)(4).

Long term (>15 year) Response Action

An IC (deed notice) must be created when a response action will take greater than 15 years to complete, or the response action is not complete after 15 years and the TCEQ finds that the response action will not be completed within a reasonable additional time. TCEQ will make the decision to require the deed notice on a site-specific basis in consideration of the additional time to achieve PCLs, intervening land transfer potential, the aggressiveness of the response action, and the COC and property factors controlling the timeliness of the remediation. See §350.31(h).

Facility Operations Area

Subchapter G of TRRP allows a Facility Operations Area (FOA) to be proposed for certain facilities. A FOA is a site-wide remedial strategy in which certain provisions of TRRP are deferred or modified within the FOA during the operation life of the FOA. If a proposed FOA is approved by TCEQ, then an IC (deed notice) is required to be filed. See TCEQ guidance document *Facility Operations Areas* (RG-366/TRRP-34) for further information on FOAs. See §350.135(a)(11).

Cancellation or Modification of Prior IC

If property subject to an IC (deed notice or restrictive covenant, as applicable) is subsequently shown to meet PCLs through natural degradation or COC removal or decontamination, the TCEQ may approve use of a superseding deed notice or release of restrictive covenant to indicate that there is no longer a need for the original deed notice or restrictive covenant, as appropriate. Also, if the condition of a property is changed such that the original deed notice or restrictive covenant provisions need to be modified in accordance with §350.35(c)(3), then the TCEQ will approve the filing of a modified TCEQ-approved IC. See §350.35(f).

Allowable Institutional Controls

TRRP only allows the use of specific types of ICs. The type of IC that will be required generally depends on the “innocent owner or operator” status of the person who owns the affected property that triggers the need for the IC. Refer to Subchapter V of Chapter 361 of the Texas Health and Safety Code and 30 TAC 333, Subchapter B for statutes and regulations pertaining to innocent owner/operator status. The person also has a certain amount of discretion in selecting the type of IC to be relied upon to discharge the obligations. The following is a list and brief definition of each recognized IC:

- 1) **Restrictive Covenant** – An instrument filed in the real property records of the county where the affected property is located which ensures that the restrictions will be legally enforceable by the executive director when the person owning the property is the innocent landowner. The covenant can only be filed by the property owner and is binding on current and future owners and lessees even if they are “innocent owners or operators.” As beneficiaries of the document’s restrictions, the TCEQ and the State of Texas can enforce the restrictions by means of a legal action in the courts.
- 2) **Deed Notice** – An instrument filed in the real property records of the county where the affected property is located that is intended to provide to owners, operators, prospective buyers and others notice and information regarding, but which does not, by itself, restrict use of the affected property. The notice can be filed by the person and the TCEQ can enforce the restrictions against **non**-innocent owners and operators when there is a substantial change in circumstances (§350.35).
- 3) **VCP Certificate of Completion** - The conditional or final certificate issued by the Voluntary Cleanup Program (VCP). A certificate that meets the requirements of §350.111 and is filed in the deed records is equivalent to a deed notice. A VCP Certification of Completion that is equivalent to a restrictive covenant will contain a restrictive covenant within it or attached to it, which must be signed by the landowner. **(Note: because of equivalency as a deed notice, the VCP Certificate of Completion will not be discussed in the subsequent text of this guide in addition to deed notice.)**
- 4) **Equivalent Zoning or Ordinance** - An ordinance or zoning law that is functionally equivalent to a restrictive covenant or deed notice. Such ordinance or zoning law may be used rather than and in the place of a restrictive covenant or deed notice,

Box 3. Covenant or Deed Notice?

Even when filing a deed notice is allowable, consider the benefits of filing a restrictive covenant. The conditions of a restrictive covenant are binding on future owners and lessees.

and avoids the necessity of filing a document in the deed records or obtaining landowner consent for the restrictions that are contained in the zoning or ordinance.

Determination of equivalency by the TCEQ is zoning or ordinance specific, but the necessary features are likely to be, but are not necessarily limited to:

- a) The zoning or ordinance is by its terms sufficient to provide the control that is required to be protective of human health and the environment; e.g., prohibits withdrawal and use of groundwater containing a COC in excess of the residential-based PCL.
- b) The zoning or ordinance provides notice of the COCs left in place and that the zoning or ordinance is necessary to prevent exposure to the COCs;
- c) The zoning or ordinance applies to both current and future uses for the land included in the zoning or ordinance;
- d) The zoning or ordinance cannot be modified or rescinded without consent of the TCEQ. Examples of mechanisms that could be utilized to accomplish this objective could be memoranda of agreement between the city and the TCEQ or a contract between the city and TCEQ. It should also be noted that should a city rescind an ordinance relied upon by TCEQ, previously approved response actions could be reopened for additional evaluation and action. In addition, loss of the liability release in the Voluntary Cleanup Program could result.

For example, cities may choose categories of COCs rather than listing specific COCs to satisfy the provision (b) above to provide notice of the COCs. This allows the use of the ordinance for future response to releases involving different COCs not present or known when the ordinance is adopted. It is unlikely that existing ordinances or zoning developed without coordination through TCEQ will meet the requirements for equivalency. Should it be desired to adopt a new ordinance or zoning, it is very important that the TCEQ be consulted as to equivalency prior to adoption of the ordinance or zoning. It is important to note that sometimes deed notices or restrictive covenants are necessary in addition to a zoning or governmental ordinance (e.g., when a surface cap is needed, and the ordinance is only a limitation on groundwater use and does not address surface caps). See the TRRP preamble in the September 17, 1999 *Texas Register* at 24 *TexReg* 7672 and 7674 for further discussion of equivalent zoning or governmental ordinance.

Content Requirements for Institutional Controls

Generally, for each given IC trigger the required IC is a deed notice, or, in the case of an innocent owner/operator, a restrictive covenant (see Figure 1 and Tables A (deed notice) and B (restrictive covenant)). The purpose of the IC is to give notice that (a) the property has been impacted with COCs and (b) is subject to certain conditions (e.g., use as commercial/industrial property). Because the restrictive covenant applies to “innocent owner/operators” who are arguably not responsible for compliance with TRRP, the restrictive covenant will contain additional language necessary to make any applicable restrictions a binding commitment on the part of the property owner (and any subsequent owners) that can be enforced by the TCEQ.

The specific contents that are required for each of the IC triggers set out in Figure 1 and Tables A (deed notice) and B (restrictive covenant) are described below. Some information is common to all deed notices and restrictive covenants. This required information is set out below under the Standard Information Requirements section, followed by specific requirements for individual IC triggers. Importantly, it is likely that more than one IC trigger requiring a deed notice or restrictive covenant will apply at an affected property. In such cases, all such notices or covenants must be provided in the IC. Consider whether all of the required ICs can be included in a single document. In certain circumstances, the chosen IC may be a local ordinance that has been approved by the TCEQ as meeting some or all of the applicable IC requirements. To the extent the ordinance does not meet all of the IC requirements applicable to the affected property, additional forms of IC (i.e., deed notice or restrictive covenant) are required. Model ICs are provided later in this document.

Also, note that for some IC triggers a deed notice is sufficient in all circumstances (e.g., use of occupational inhalation criteria). For those deed-notice-only IC triggers, no restrictive covenant version is discussed. If a restrictive covenant will already be filed to address other IC triggers, nothing in this guidance or rule precludes addressing that deed notice requirement within the restrictive covenant.

Standard Information Requirements

The following information is required as a part of every deed notice and restrictive covenant:

1. a metes and bounds description of the portion(s) of the affected property to which the IC applies;
2. a plat map clearly demarcating the portion(s) of the affected property to which the IC applies. The map must contain a north arrow, a

- correlating map scale, and a legend identifying any used symbols or abbreviations;
3. a certification by a registered professional land surveyor so registered by the Texas Board of Professional Surveying attesting to the accuracy of the descriptions;
 4. a statement discussing the appropriate land use (i.e., residential or commercial/industrial) for the affected property;
 5. an explanation as to which environmental media contain COCs above PCLs;
 6. a statement documenting any property use limitations or any requirements for maintenance of physical controls and/or ICs, or compliance with health and safety plans;
 7. the TCEQ Program and identifier number, and the availability of more detailed information at or through the TCEQ Records Services Office or Web Site; and
 8. the physical address and mailing address for the TCEQ Records Services Office, as of the time of filing the IC.

In addition, note that title companies evaluate notices and restrictions contained in deed records by looking at original survey property descriptions. As a result, supplying the legal description for just the affected property may not allow the notice or description to be seen by title companies evaluating property records, particularly where the legal description of the affected property is just a portion of the original surveyed property. As a result, a legal description of the entire tract of which the affected property is a portion (if different) should be provided.

Additional Information Required for Specific Triggers

The specific information required for each IC trigger is discussed in this section.

Commercial/Industrial Land Use

If commercial/industrial land use assumptions are used under Remedy Standard A or B, note in a deed notice that the property is protective for commercial/industrial land use. However, if any person desires to use the property for residential purposes, then they must first notify the TCEQ at least 60 days in advance of such use and perform any additional required response actions. See §350.111(b)(3) and §350.35(c).

For a restrictive covenant, state that the property is protective for commercial/industrial land use; the property is limited to commercial/industrial use; and that TCEQ approval is required before the property is converted to residential use. See §350.111(b)(5) and §350.35(c).

Use of Remedy Standard B

Use of Physical Control on Soil

If a physical control (such as an impervious cap) is applied to address a soil PCLE zone, then for a deed notice describe the physical control (including the physical location and/ or the lateral extent) and state the reason the control (physical control and IC) must remain in place to be protective of human health and the environment; and state that before the physical control or institutional control is altered, the TCEQ must grant prior approval. See §350.111(b)(3), §350.31(g), and §350.33(b)(1).

For a restrictive covenant, describe and locate the physical control; describe the maintenance and monitoring required until TCEQ approves modification; provide the reason controls are needed to maintain protectiveness (physical control and IC); prohibit removal or modification of the control without prior TCEQ approval; and require that any physical control be maintained. See §350.111(b)(6), §350.31(g) and §350.33(b)(1).

Use of Waste Control Unit

If a WCU is approved by TCEQ, then for a deed notice identify the location of the WCU and the underlying groundwater PCLE zone; describe the maintenance and monitoring required until TCEQ approves modification; provide the reason the WCU was created; and warn against the use of and exposure to the groundwater PCLE zone under the WCU; and state that before the WCU or institutional control is altered, the TCEQ must grant prior approval. See §350.111(b)(3) and §350.33(f)(2).

For a restrictive covenant, identify and locate the WCU and the underlying groundwater PCLE zone; describe the maintenance and monitoring required until TCEQ approves modification; provide the reason the WCU was established; prohibit the removal or modification of the WCU without prior TCEQ approval and prohibit use of and exposure to the groundwater PCLE zone under the WCU; require that the WCU be maintained; and state that before the WCU or institutional control is altered, the TCEQ must grant prior approval. See §350.111(b)(6) and §350.33(f)(2).

Technical Impracticability

If a TI demonstration is approved by the TCEQ, then for a deed notice identify the location of the TI zone; describe the maintenance and monitoring required until TCEQ approves modification; provide the reason the TI zone was established; and warn against the use of and exposure to groundwater from within the TI zone; and state that before the physical control or institutional control is altered, the TCEQ must grant prior approval. See §350.111(b)(3) and §350.33(f)(3)(F).

For a restrictive covenant, identify and locate the TI zone; describe any physical control employed to maintain the TI zone, describe the maintenance and monitoring required until TCEQ approves modification; provide the reason the TI zone was established; prohibit removal or modification of controls without prior TCEQ approval; prohibit use of and exposure to groundwater from within the TI zone; state that before the physical control or institutional control is altered, the TCEQ must grant prior approval. See §350.111(b)(6) and §350.33(f)(3)(F).

Plume Management Zone

If a PMZ is approved by the TCEQ, for a deed notice describe the location of the PMZ and any physical control employed to control the PMZ; describe the maintenance and monitoring required until TCEQ approves modification; state the reason the PMZ was established; warn against exposure to groundwater from the PMZ; and state that before the PMZ, physical control or institutional control is altered, the TCEQ must grant prior approval. See §350.111(b)(3) and §350.33(f)(4)(C)(i).

For a restrictive covenant, identify and locate the PMZ; describe any physical control employed to control the PMZ; describe the maintenance and monitoring required until TCEQ approves modification; state the reason the PMZ was established; prohibit removal or modification of controls without prior TCEQ approval; prohibit exposure to groundwater from the PMZ; state that before the PMZ, physical control or institutional control is altered, the TCEQ must grant prior approval. See §350.111(b)(6) and §350.33(f)(4)(C)(i).

Use of Institutional Controls to Address “Other Reasonably Anticipated to be Completed Exposure Pathways”

If the TCEQ determines that agricultural exposure is a reasonably anticipated to be completed exposure pathway, then unless the property is determined to be in compliance with agricultural PCLs, an IC is needed to inform future landowners that the affected property has not been evaluated for agricultural exposure pathways. For a deed notice, state that the property has not been evaluated for agricultural exposure pathways such as crop or livestock uptake, or toxicity to crops or livestock, and

therefore the affected property may not be protective for agricultural exposure pathways. Also state that if any person desires to use the property for agricultural purposes, then they must first notify the TCEQ at least 60 days in advance of such use and perform any additional required response actions. For a restrictive covenant, prohibit agricultural use of the property until a demonstration is approved by the TCEQ that the affected property is protective for agricultural use. See §350.111(b)(3).

If the indoor vapor intrusion exposure pathway is a reasonably anticipated to be completed exposure pathway, then unless the affected property is determined to be in compliance with indoor vapor intrusion soil and groundwater PCLs, an IC is required. For a deed notice indicate that either future building development should be designed to preclude indoor vapor intrusion from the underlying soil or groundwater, or provide notice that the affected property should be re-evaluated for potential indoor vapor intrusion before developing buildings. For a restrictive covenant, prohibit future building development unless buildings are designed to preclude indoor vapor intrusion from the underlying soil or groundwater, or prohibit building development until a demonstration is approved by the TCEQ that the affected property is protective against indoor vapor intrusion. See §350.111(b)(6).

For any other exposure pathways that may be addressed under §350.71(c)(8) with an IC, propose IC language in the RAP for TCEQ approval. Ensure §350.111(b)(3) or (b)(6), as applicable, is addressed.

Use of Site-Specific Exposure Assumptions

Change from Default Residential Exposure Area

If an area larger than 1/8 acre or the size of the front or back yard of the existing affected residential lot is approved by the TCEQ as an exposure area, then for a deed notice indicate the size of the assumed exposure area for residents, and state that if future exposures are limited to smaller areas the affected property should be reevaluated to ensure protection of human health. See §350.111(b)(8).

For restrictive covenants, document the size of the assumed residential exposure area; and prohibit subdivision to smaller tracts without prior TCEQ approval. See §350.111(b)(10).

Change from Default Commercial/Industrial Exposure Area

If an area larger than 1/2 acre of an existing commercial/industrial property is approved by the TCEQ as an exposure area, then for a deed notice indicate the size of the commercial/industrial exposure area for workers and state that if future exposures are limited to smaller areas the affected

property should be re-evaluated to ensure protection of human health. See §350.111(b)(9).

For restrictive covenants, document the size of the assumed commercial/industrial exposure area; and prohibit subdivision to smaller tracts without prior TCEQ approval. See §350.111(b)(11).

Use of Occupational Inhalation Criteria

In the event that occupational inhalation criteria are used to establish PCLs, the deed notice must document that the response action relies upon air monitoring, compliance with such inhalation criteria is required, and the existence and required use of a health and safety plan. A deed notice is the acceptable type of IC for all instances. See §350.111(b)(14).

Change from Default Exposure Frequency and Duration

If the Executive Director (not TCEQ staff) approves a variance from default commercial/industrial values for exposure duration and exposure frequency, for a deed notice indicate the TCEQ-approved exposure frequency and duration and that exposures exceeding these approved levels are not protective of human health. See §350.111(b)(12).

For restrictive covenants, list the TCEQ-approved exposure frequency and duration; prohibit exposure to COCs in excess of that frequency; state that before the allowable exposure frequency and duration is changed the TCEQ must grant prior approval. See §350.111(b)(13).

Relocation and Reuse of Soil Containing COCs

In the event the TCEQ approves the reuse or relocation of soils containing COCs, an IC must be filed if commercial/industrial land use or Remedy Standard B is being assumed at the receiving location. For a deed notice for Remedy Standard A commercial/industrial land use, state that the receiving location is protective for commercial/industrial land use, but TCEQ must be contacted at least 60 days prior to residential use; and that additional response actions may be required.

For a Remedy Standard B, the deed notice must: describe any physical control and the maintenance and monitoring required until TCEQ approves modification; and provide the reason controls are needed to maintain protectiveness (physical control and IC). If commercial/industrial land use is used, then include notice that the property is protective for commercial/industrial land use, but TCEQ must be contacted at least 60 days prior to residential use; and state that additional response actions may be required. See §350.111(b)(2) and §350.111(b)(3).

For restrictive covenants for Remedy Standard A commercial/industrial land use: state that the property is limited to commercial/industrial use; and require TCEQ approval before property is converted to residential use.

For Remedy Standard B for residential or commercial/industrial land use: describe any physical control and maintenance and monitoring required until TCEQ approves modification; provide the reason controls are needed to maintain protectiveness (physical control and IC); prohibit removal or modification of control without prior TCEQ approval; compel maintenance of any physical control. If commercial/industrial land use is used, then include a statement that the property shall be limited to commercial/industrial use; and require TCEQ approval before property is converted to residential use. See §350.111(b)(5) and §350.111(b)(6).

Long Term (>15 years) Response Action

If the TCEQ requires an IC, file a deed notice that indicates that long-term response actions are being conducted at the affected property. A deed notice is the acceptable type of IC for all instances. See §350.111(b)(1).

Facility Operations Area

In the event the TCEQ approves the application for a FOA, a deed notice must be filed since a FOA can only be established by the owner/operator. The deed notice must explain what a FOA is and its purpose, delineate the horizontal and vertical boundary of the FOA, acknowledge that PCLs are exceeded within the FOA, describe the deferred or on-going response actions within the FOA, and restrict access to the FOA. See TCEQ guidance document *Facility Operations Areas* (RG-366/TRRP-34) and §350.135.

Cancellation or Modification of Prior IC

If it is determined that PCLs are no longer exceeded, then a previously-filed deed notice or restrictive covenant is no longer needed to protect human health and the environment. In such instances, a request may be made of the TCEQ to approve a superseding deed notice in accordance with §350.111(b)(4) or a restrictive covenant release in accordance with §350.111(b)(7). The superseding deed notice or restrictive covenant release will contain a statement approved by the TCEQ indicating that the former deed notice or restrictive covenant is no longer warranted.

If PCLs are still exceeded, but conditions at the affected property have been changed in accordance with §350.35(c) such that the previously filed deed notice or restrictive covenant is no longer appropriate as originally

filed, then a request may be made of the TCEQ to approve a superseding deed notice or restrictive covenant release in accordance with §350.35(c)(3). The superseding deed notice and restrictive covenant release must contain a statement approved by the TCEQ indicating that the former conditions at the property have been changed and that the former deed notice or restrictive covenant is no longer applicable. The superseding IC must also contain the revised language that is appropriate for the still applicable trigger(s) as discussed in this guidance.

Table A - Type, Content and Timing of Deed Notice

A **deed notice** provides notice to others of the property conditions and must be filed in the county deed records for the IC triggers listed below. Deed notices must contain all of the information in **Box I** below. In addition, include the applicable content from **Box II** pertinent for the IC trigger(s). A VCP Certificate of Completion may serve as the deed notice.

Box I. Standard Information.

- a metes and bounds description of the portion(s) of the affected property to which the IC applies;
- a plat map clearly demarcating the portion(s) of the affected property to which the IC applies. The map must contain a north arrow, a correlating map scale, and a legend identifying any used symbols or abbreviations;
- a certification by a registered professional land surveyor so registered by the Texas Board of Professional Surveying attesting to the accuracy of the descriptions;
- a statement discussing the appropriate land use (i.e., residential or commercial/industrial) for the affected property;
- an explanation as to which environmental media contain COCs above PCLs (list the COCs as of the time of IC filing for each medium);
- a statement documenting any property use limitations or any requirements for maintenance of physical controls and/or ICs, or compliance with health and safety plans;
- the TCEQ Program and identifier number, and the availability of more detailed information at or through the TCEQ Records Services Office or Web Site; and
- the physical address and mailing address for the TCEQ Records Services Office, as of the time of filing the IC.

In addition, the legal description, name and address of the record owner of the entire property should also be included.

Box II For Each Applicable IC Trigger, File the Appropriate Type of Institutional Control.

IC Trigger	Deed Notice Contents	Timing
<p>Commercial/Industrial Land Use §350.31(g)</p>	<ul style="list-style-type: none"> • Property is protective for commercial/industrial land use, but TCEQ must be contacted at least 60 days prior to change to residential use; • Additional response actions may be required if to convert to residential land use. <p>(see §350.111(b)(2))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.</p>
<p>Use of Remedy Standard B Use of physical control on soils §350.31(g)</p>	<ul style="list-style-type: none"> • Description of the physical control and the maintenance and monitoring required until TCEQ approves modification; • Stated reasons controls needed to maintain protectiveness (physical control and IC). <p>(see §350.111(b)(3))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.</p>
<p>Use of Remedy Standard B Use of waste control unit §350.33(f)(2)</p>	<ul style="list-style-type: none"> • Identification and location of the WCU; • Identification and location of the underlying groundwater PCLE zone; • Description of the maintenance and monitoring required until TCEQ approves modification; • Stated reason WCU was established; • A warning against the use of and exposure to the groundwater PCLE zone under the WCU. <p>(see §350.111(b)(3) and §350.33(f)(2))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 120 days after TCEQ approval of RAP.</p>
<p>Use of Remedy Standard B Technical impracticability §350.33(f)(3)</p>	<ul style="list-style-type: none"> • Identification and location of the groundwater PCLE zone; • Description of the maintenance and monitoring required until TCEQ approves modification; • Stated reason the TI zone was established; • A warning against the use of and exposure to the groundwater within the TI zone. <p>(see §350.111(b)(3) and §350.33(f)(3)(F))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 120 days after TCEQ approval of RAP.</p>
<p>Use of Remedy Standard B Plume management zone §350.33(f)(4)(C) and §350.37(a)</p>	<ul style="list-style-type: none"> • Identification and location of the PMZ; • Description of the maintenance and monitoring required until TCEQ approves modification; • Stated reason PMZ was established; • A warning against exposure to the COCs in the groundwater PMZ. <p>(see §350.111(b)(3) and §350.33(f)(4)(C)(i))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing to TCEQ within 120 days after TCEQ approval of RAP.</p>

IC Trigger	Deed Notice Contents	Timing
<p>Use of Remedy Standard B Institutional control for reasonably anticipated to be completed exposure pathway §350.31(g), §350.33(b)(1)</p>	<ul style="list-style-type: none"> • Identify the exposure pathway; • If agricultural, state that the exposure pathway was not evaluated and use of the property for agricultural purposes may not be protective, and the property should be re-evaluated before being used for agricultural purposes. • If indoor vapor intrusion, state that building should be designed to prevent indoor vapor intrusion from the underlying soil or groundwater, or the property should be re-evaluated before buildings are developed. <p>(see §350.111(b)(3))</p>	<p>Draft IC: Submit draft IC in RAP, (or RACR if issue came up after RAP approval or on self-implemented project).</p> <p>Proof of filing approved IC: Submit proof of filing to TCEQ within 90 days after TCEQ approval of RACR.</p>
<p>Use of Site-Specific Exposure Assumptions Change from default residential exposure area §350.51(l)(3)</p>	<ul style="list-style-type: none"> • Size of the assumed residential exposure area; • The human health risks and hazards should be re-evaluated before subdivision to smaller tracts. <p>(see §350.111(b)(8))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.¹</p>
<p>Use of Site-Specific Exposure Assumptions Change from default commercial/industrial exposure area §350.51(l)(4)</p>	<ul style="list-style-type: none"> • Size of the assumed commercial/industrial exposure area; • The human health risks and hazards should be re-evaluated before subdivision to smaller tracts. <p>(see §350.111(b)(9))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR, or at time of land transfer, whichever occurs first.¹</p>
<p>Use of Site-Specific Exposure Assumptions Use of occupational inhalation criteria §350.74(b)(1)</p>	<p>Statement that in order to maintain worker protection, monitoring of COC concentrations in the work space air is required as set forth in the established health and safety plan for the property to verify occupational inhalation criteria are met.</p> <p>(see §350.111(b)(14))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR, or at time of land transfer, whichever occurs first.¹</p>
<p>Use of Site-Specific Exposure Assumptions Change from default exposure frequency and duration §350.74(j)(2)(L)</p>	<p>Include:</p> <ul style="list-style-type: none"> • A listing of the TCEQ-approved exposure frequency and duration; • Statement that exposure to COCs in excess of that frequency or duration is not protective. <p>(see §350.111(b)(12))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.¹</p>

IC Trigger	Deed Notice Contents	Timing
<p>Relocation and Reuse of Soil Containing COCs §350.36(b)(4) & (c)(4)</p>	<p>Commercial/Industrial land use:</p> <ul style="list-style-type: none"> • Property is protective for commercial/industrial land use, but TCEQ must be contacted at least 60 days prior to residential use; • Additional response actions may be required. <p>(see §350.111(b)(2))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after the date of completion of soil relocation.</p>
<p>Relocation and Reuse of Soil Containing COCs §350.36(b)(4) & (c)(4)</p>	<p>Remedy Standard B:</p> <ul style="list-style-type: none"> • Description of any physical control and the maintenance and monitoring required until TCEQ approves modification; • Stated reason controls needed for the relocated/reused soils to maintain protectiveness (physical control and IC). <p>(see §350.111(b)(3))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after the date of completion of soil relocation.</p>
<p>Long-Term (>15 years) Response Action §350.31(h)²</p>	<p>Statement that provides notice that long-term response actions are taking place. (see §350.111(b)(1))</p>	<p>Draft IC: Submit draft IC within 30 days after being notified by TCEQ that such notice is warranted, or within SIN, RAER, or RAP when need for it is apparent.</p> <p>Proof of filing approved IC: Submit proof of filing IC within 90 days after being notified by TCEQ that such notice is warranted.</p>
<p>Facility Operations Area §350.135(a)(11)</p>	<ul style="list-style-type: none"> • A description of what a FOA is and the purpose; • A metes and bounds description of the FOA boundary and state the vertical boundary; • A statement that PCLs are exceeded within the FOA boundary; • A description of the deferred and on-going response actions within the FOA boundary; • A statement restricting access to the FOA to workers and authorized visitors who have been provided appropriate training or are subject to controls on their activities within the FOA. <p>(see §350.135, and TCEQ guidance document <i>Facility Operations Areas</i> (RG-366/TRRP-34))</p>	<p>Draft IC: Submit draft IC in FOA application.</p> <p>Proof of filing approved IC: Submit proof of filing the IC to TCEQ within 90 days following TCEQ approval of the FOA application.</p>

IC Trigger	Deed Notice Contents	Timing
Cancellation or Modification of Prior IC §350.35	<p>Cancellation: Statement indicating that the former deed notice is no longer warranted, the reason why the deed notice is no longer needed, and a statement that this deed notice supersedes the former deed notice.</p> <p>Modification: Statement of the changed condition, the provisions of the new deed notice supersede the provisions of the former deed notice, and the content required as discussed above for the particular IC trigger(s).</p>	<p>Draft IC: Submit draft IC cancellation when conditions no longer warrant IC.</p> <p>Proof of filing approved IC: At anytime following approval by TCEQ.</p>
<p>¹ Timing requirements were deliberately not specified in rule so person can time the IC with other IC filing. However, the final No Further Action letter will not be issued until all IC requirements have been fulfilled. (see 24 Tex Reg 7576 and 7630). The timing presented in this guidance is only a recommendation.</p> <p>² Also applicable to innocent owners and operators.</p>		

Table B - Restrictive Covenant

A **restrictive covenant** allows the TCEQ to enforce restrictions imposed on the property against the landowner and must be executed by the innocent owner and filed in the county deed records for the IC triggers listed in the table below. Restrictive covenants must contain all of the information in **Box I** below. In addition, include the applicable content from **Box II** pertinent for the IC trigger(s).

Box 1. Standard information

- a metes and bounds description of the portion(s) of the affected property to which the IC applies;
- a plat map clearly demarcating the portion(s) of the affected property to which the IC applies. The map must contain a north arrow, a correlating map scale, and a legend identifying any used symbols or abbreviations;
- a certification by a registered professional land surveyor so registered by the Texas Board of Professional Surveying attesting to the accuracy of the descriptions;
- a statement discussing the appropriate land use (i.e., residential or commercial/industrial) for the affected property;
- an explanation as to which environmental media contain COCs above PCLs (list the COCs as of the time of IC filing for each medium);
- a statement documenting any property use limitations or any requirements for maintenance of physical and/or ICs, or compliance with health and safety plans;
- the TCEQ Program and identifier number, and the availability of more detailed information at or through the TCEQ Records Services Office or Web Site; and
- the physical address and mailing address for the TCEQ Records Services Office, as of the time of filing the IC.

In addition, the legal description, name and address of the record owner of the entire property should also be included.

Box II For Each Applicable IC Trigger, File the Appropriate Type of Institutional Control.

IC Trigger	Restrictive Covenant Contents	Timing
<p>Commercial/Industrial Land Use §350.31(g)</p>	<ul style="list-style-type: none"> • Property use is limited to commercial/industrial use; • TCEQ-approval required before property converted to residential use; <p>(see §350.111(b)(5))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.</p>
<p>Use of Remedy Standard B Use of physical control on soil §350.31(g)</p>	<ul style="list-style-type: none"> • Description of the physical control and maintenance and monitoring required until TCEQ approves modification; • Stated reason controls needed to maintain protectiveness (physical control and IC); • A prohibition against removal or modification of control without prior TCEQ approval; • Statement compelling maintenance of any physical control. <p>(see §350.111(b)(6))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.</p>
<p>Use of Remedy Standard B Use of waste control unit §350.33(f)(2)</p>	<ul style="list-style-type: none"> • Identification and location of the WCU; • Identification and location of the underlying groundwater PCLE zone; • Description of the maintenance and monitoring required until TCEQ approves modification; • Stated reason WCU was established; • A prohibition against removal or modification of the WCU without prior TCEQ approval; • A prohibition against use of and exposure to the groundwater PCLE zone under the WCU; • Statement compelling maintenance of the WCU. <p>(see §350.111(b)(6) and §350.33(f)(2))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 120 days after TCEQ approval of RAP.</p>
<p>Use of Remedy Standard B Technical impracticability §350.33(f)(3)</p>	<ul style="list-style-type: none"> • Identification and location of the groundwater PCLE zone; • Description of the maintenance and monitoring required until TCEQ approves modification; • Stated reason TI zone was established; • A prohibition against removal or modification of controls without prior TCEQ approval; • A prohibition against use of and exposure to the groundwater within the TI zone; • Statement compelling maintenance of any physical control. <p>(see §350.111(b)(6) and §350.33(f)(3)(F))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 120 days after TCEQ approval of RAP.</p>

IC Trigger	Restrictive Covenant Contents	Timing
<p>Use of Remedy Standard B Plume management zone §350.33(f)(4)(C) and §350.37(a)</p>	<ul style="list-style-type: none"> • Identification and location of PMZ; • Description of the maintenance and monitoring required until TCEQ approves modification; • Stated reason PMZ was established; • A prohibition against removal or modification of controls without prior TCEQ approval; • A prohibition against exposure to the COCs in the groundwater PMZ; • Statement compelling maintenance of any physical control. <p>(see §350.111(b)(6) and §350.33(f)(4)(C)(i))</p>	<p>Draft IC: Submit draft IC in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing to TCEQ within 120 days after TCEQ approval of RAP.</p>
<p>Use of Remedy Standard B Institutional control for reasonably anticipated to be completed exposure pathway §350.31(g), §350.33(b)(1)</p>	<ul style="list-style-type: none"> • Identify the exposure pathway; • If agricultural, state the exposure pathway was not evaluated and prohibit use of the property for agricultural purposes until the property is demonstrated to TCEQ to be protective for agricultural purposes. • If indoor vapor intrusion, prohibit buildings that are not designed to prevent indoor vapor intrusion from the underlying soil or groundwater, or prohibit building development until the property is re-evaluated and a demonstration is approved by the TCEQ that the property is protective against indoor vapor intrusion. <p>(see §350.111(b)(6))</p>	<p>Draft IC: Submit draft IC in RAP, (or RACR if issue came up after RAP approval or on self-implemented project).</p> <p>Proof of filing approved IC: Submit proof of filing to TCEQ within 90 days after TCEQ approval of RACR.</p>
<p>Use of Site-Specific Exposure Assumptions Change from default residential exposure area §350.51(l)(3)</p>	<ul style="list-style-type: none"> • Size of the assumed residential exposure area; • Prohibition against subdivision to smaller tracts without prior TCEQ approval. <p>(see §350.111(b)(10))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.¹</p>
<p>Use of Site-Specific Exposure Assumptions Change from default commercial/ industrial exposure area §350.51(l)(4)</p>	<ul style="list-style-type: none"> • Size of the assumed commercial/industrial exposure area; • Prohibition against subdivision to smaller tracts without prior TCEQ approval. <p>(see §350.111(b)(11))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR, or at time of land transfer, whichever occurs first.¹</p>
<p>Use of Site-Specific Exposure Assumptions Use of occupational inhalation criteria §350.74(b)(1)</p>	<p>Not applicable, filed as deed notice (see §350.111(c))</p>	<p>Not applicable</p>

IC Trigger	Restrictive Covenant Contents	Timing
<p>Use of Site-Specific Exposure Assumptions Change from default exposure frequency and duration §350.74(j)(2)(L)</p>	<ul style="list-style-type: none"> • A listing of the TCEQ-approved exposure frequency and duration; • A prohibition against using the affected property more frequently or for longer duration. <p>(see §350.111(b)(13))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.¹</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after TCEQ approval of RACR.¹</p>
<p>Relocation and Reuse of Soil Containing COCs §350.36(b)(4) & (c)(4)</p>	<p>Commercial/industrial land use:</p> <ul style="list-style-type: none"> • Property is limited to commercial/industrial use; • Statement requiring TCEQ approval before property converted to residential use. <p>(see §350.111(b)(5))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after the date of completion of soil re-use action.</p>
<p>Relocation and Reuse of Soil Containing COCs §350.36(b)(4) & (c)(4)</p>	<p>Remedy Standard B</p> <ul style="list-style-type: none"> • Description of any physical control and maintenance and monitoring required until TCEQ approves modification; • Stated reason controls needed to maintain protectiveness (physical control and IC); • A prohibition against removal or modification of control without prior TCEQ approval; • Statement compelling maintenance of any physical control. <p>(see §350.111(b)(6))</p>	<p>Draft IC: Submit draft IC in RACR unless submitted in RAP.</p> <p>Proof of filing approved IC: Submit proof of filing IC to TCEQ within 90 days after the date of completion of soil re-use action.</p>
<p>Long Term (>15 years) Response Action §350.31(h)²</p>	<p>Not applicable, filed as deed notice (see §350.111(c))</p>	<p>Not applicable</p>
<p>Facility Operations Area §350.135(a)(11)</p>	<p>Not applicable, filed as a deed notice. Not eligible for property owned by an innocent owner/operator.</p>	<p>Not applicable</p>
<p>Cancellation or Modification of Prior IC §350.35</p>	<p>Cancellation: Statement indicating that this is a release of restrictive covenant and that the former restrictive covenant is no longer warranted.</p> <p>Modification: Statement of the changed condition, that the provisions of the new restrictive covenant supersede the provisions of the former restrictive covenant, and the content required as discussed above for the particular IC trigger(s).</p>	<p>Draft IC: Submit draft IC cancellation when conditions no longer warrant IC.</p> <p>Proof of filing approved IC: At anytime following approval by TCEQ.</p>
<p>¹ Timing requirements were deliberately not specified in rule so person can time the IC with other IC filing. However, the final No Further Action letter will not be issued until all IC requirements have been fulfilled. (see 24 Tex Reg 7576 and 7630). The timing presented in this guidance is only a recommendation.</p> <p>² Also applicable to Innocent Owners and Operators.</p>		

TCEQ Approval of Proposed and Filed Institutional Control

In all circumstances, an IC for an affected property under TRRP must be acceptable to the TCEQ as meeting rule requirements. In most circumstances, TRRP requires TCEQ approval of the IC before an IC is filed in the property records. Where the rule is silent regarding TCEQ approval before filing an IC, it is recommended that TCEQ approval be sought before filing the IC in order to avoid having to file an amended IC if the original IC does not receive TCEQ approval.

Depending on the particular IC trigger and self-implementation status of the project, there are different rule requirements for when to seek approval for the proposed IC. The last columns of Tables A and B provide direction in this regard. In general, if a RAP is submitted for TCEQ approval, the proposed IC should be included in the RAP [§350.94(i)]. Otherwise, the proposed IC should be included in the Response Action Completion Report (RACR) [§350.95(b) and (c)(1)].

One exception is with regard to the IC trigger for long-term response actions [§350.31(h)]. This IC may be required by the TCEQ whenever the conditions of §350.31(h) are met. If the person determines that the §350.31(h) are met, then propose the IC in a Self-Implementation Notice [§350.92(a)(8)], Response Action Effectiveness Report (RAER) [§350.93(a)(6)], or RAP as most appropriate considering the timing. The person should then file the IC within 90 days of the date of TCEQ approval. Otherwise, §350.31(h) requires the person to provide proof of filing the IC within 90 days of the TCEQ determination that the IC is needed. When the TCEQ notifies the person of the need for the IC, it is recommended that the person submit a proposal IC to the TCEQ for approval within 30 days of the TCEQ request so that there will be time to meet the rule requirement. The proposal may be submitted to TCEQ independently or within another TRRP-required report.

Except for the ICs for a waste control unit, technical impracticability demonstration, or plume management zone, submit proof of filing the IC within 90 days of the date of TCEQ approval of the proposed IC, which is generally given through approval of the RACR. For the three exceptions noted in the previous sentence, submit proof of filing those ICs within 120 days of approval, which is given through approval of the RAP.

As discussed in the next section, with some defined exceptions, landowner consent for the filing of the IC is required before the filed IC will satisfy TRRP requirements. However, landowner consent may be sought **after** the proposed IC is approved by TCEQ. Modification of the IC proposal after it has been approved is discouraged, but if it is unavoidable, discuss the modification with TCEQ to determine if the person needs to re-submit a proposed IC for TCEQ approval.

Proof of filing an IC should be documented with a copy of the IC as stamped with the book and page number or other filing locator by the County Official.

Landowner Consent Requirements and Extenuating Circumstances

There are specific requirements listed in §350.111(c) to obtain landowner consent before filing ICs on property not owned by the person. Except in the circumstances discussed below, the owner of the affected property or owner of the portion(s) of the affected property that triggers the requirement to obtain an IC must be provided a written request for consent, a copy of the proposed instrument and an explanation of its content and purpose for their consideration. The written request must also contain the address and phone number of the TCEQ's Public Interest Counsel. Except in the circumstances described below, the person must then obtain the landowner's written consent prior to the filing of the IC. Submit proof of requesting written landowner consent for the filing of an IC to TCEQ before filing the IC. Proof of written landowner consent will typically be submitted to TCEQ in a RACR, unless the IC must be filed within an earlier time frame [§350.111(e)]. In the situation of the earlier filing, the proof of request for landowner consent can be submitted to TCEQ as either a specific document or within another TRRP-required report. In either case, make the consent information apparent. The person must provide proof of actual written landowner consent to the filing of the IC to TCEQ before TCEQ will approve the RACR

[§350.111(e)]. There are a few exceptions as discussed later in this section. A legible copy of the written request for consent and a copy of the written consent request signed by the landowner or their agent that clearly indicates that consent is given for filing the IC will suffice as acceptable proof.

In some instances, landowner consent for filing an IC may not be obtainable. For example, the landowner might not be able to be located. In other instances, the landowner may refuse to grant the consent, even though it is technically impracticable to remove or decontaminate the

Box 4. A note about §350.111(c)(2):

If Remedy Standard B is applied to an affected property, then an IC must be filed. However, if any portion or tract of property within the affected property has been remediated such that COC concentrations meet residential-Remedy Standard A requirements, then no IC is required for that portion or tract of property for purposes of Remedy Standard B. Remedy Standard B has been applied to the affected property, but removal/decontamination to residential PCLs was the remedial option for that portion or tract of property. Therefore, because the action on that portion or tract of property was equivalent to “residential-based Remedy Standard A,” the conditions of §350.111(c)(2) are met. To include the Remedy Standard B context, the verbiage “remove and/or decontaminate to residential-based PCL” will be considered to suffice for “residential-based Remedy Standard A.” See §350.111(c)(2) and (d)(2).

COCs sufficiently enough to avoid the need for an IC. Additionally, TRRP provides an exception to the consent requirement when the person conducting the response activities is a governmental entity and not a responsible party. The following discusses the procedural and substantive requirements that must be satisfied when such situations are encountered.

1. Unavailability: Consent is not required from landowners that cannot be located "after extensive and diligent inquiry." In order to conclude that a landowner is unavailable under this subsection, the TCEQ expects a written statement from the person describing the efforts made to locate the landowner in question, including a log of attempted contacts, certified mail receipts, printouts from commonly recognized electronic landownership record search engines or other electronic vehicles for identifying the location of individuals, partnerships, corporations, etc. This statement should be provided for TCEQ concurrence prior to filing an IC on the property. The statement must be included in the RACR unless the IC has to be filed earlier, in which case the statement could be submitted independently or within another TRRP-required report. See §350.111(c)(3) and (f)

2. Landowner Refusal and Technical Impracticability and Compensation: If the landowner is refusing to consent to the filing of an IC on their property records, then the person should consider removal and/or decontamination of COC concentrations to the residential-based PCL in a manner and timeframe that avoids the need for an IC on that landowner's property. When removal and/or decontamination to the residential-based PCL on the particular property can be proven by the person to be technically impracticable, TRRP affords an avenue for addressing the landowner consent refusal. The criteria governing TI determinations is set out at §350.33(f)(3). If a TI finding is obtained from the TCEQ, the person is not required to meet the landowner consent requirement if all of the following are met:

- a) a court of competent jurisdiction provides a determination of what the appropriate level of compensation is for the filing of the IC in question;
- b) an amount equivalent to the devaluation determination is paid into the court registry; and
- c) the TCEQ is provided proof of both the court's determination and the payment into the court's registry.

3. Equivalent zoning or other ordinance: If there is an equivalent zoning or ordinance in effect for the particular property and it specifically addresses the IC trigger, then the site-specific filing of an IC for that trigger is not required. Landowner consent is not required in order for the TCEQ to accept reliance on that equivalent zoning or ordinance as the IC.

Specific landowner input would have been considered as part of the public process in establishing the zoning or ordinance. The criteria the TCEQ intends to govern the equivalency assessment were discussed earlier in this guidance document. See §350.4(a)(47) and 24 Tex. Reg. 7672 and 7674

4. Governmental entity that is not a responsible party: TRRP provides an exception to the requirement to obtain landowner consent for the filing of a deed notice when the person conducting the response action is a governmental entity that is not a responsible party. This exception is provided to extend the beneficial use of finite state and federal remediation funds so that more sites can be addressed by allowing the utilization of an IC when a control-based remedy is fully protective of human health and the environment and is the lowest cost remedial alternative.

Substantial Change In Circumstances

Upon receipt of approval by the executive director of the RACR, performance of applicable post-response action care, maintenance of any applicable financial assurance, and termination of any applicable post-response action care period by the TCEQ, the person will have completed the obligations of TRRP. However, if a required IC fails to prevent exposure at the approved performance level, then a substantial change in circumstances has occurred. If a substantial change occurs, then the affected property must be reassessed according to the provisions of §350.35. One of the primary purposes behind the filing of ICs is to provide sufficient information such that changes in circumstances at the affected property will not be made unless proper actions are taken to keep the property protective.

Obligations Imposed by the Deed Notice and Restrictive Covenants

TRRP provides that no person shall cause, suffer, allow, or permit a threat to human health or the environment by changing a land use specified in an approved RACR from commercial/industrial to residential or by removing, altering or failing to maintain a physical control or IC that applies to an affected property that underwent an approved response action. If a person plans to change the land use from commercial/industrial to residential, or to eliminate or modify the use of a physical control or IC, then that person shall take any actions necessary to make the property protective for such changed conditions. The person making the change shall notify the TCEQ in writing at least 60 days prior to changing the land use or the use of the approved physical control or ICs.

Model Institutional Controls

This section provides separate models for deed notices and restrictive covenants. The models are comprised of a template for a deed notice and a restrictive covenant into which site-specific information is inserted. Model language for each of the triggers discussed in the guidance is provided in Appendix A for deed notices and in Appendix B for restrictive covenants. Please pay careful attention to the subdivisions of the appendices so that the correct insert language is used for the trigger of interest and for the site-specific conditions. Although strict adherence to these models is not required, use of the models will facilitate compliance.

Texas Risk Reduction Program

Deed Notice

STATE OF TEXAS §
 COUNTY OF _____ §

This Notice is filed to provide information concerning certain environmental conditions and/or use limitations pursuant to the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program Rule (TRRP) found at 30 Texas Administrative Code (TAC), Chapter 350, and affects the real property (Property) described as follows:

[Insert legal description or a reference to an attached Exhibit A with the phrase, "attached hereto and incorporated herein by reference." This legal description needs to include the entire recorded tract of land held by the owner executing this deed notice. The description should consist of the property description used in the last recorded vesting deed covering the Property or, if the Property has since been subdivided, the legal description for the subdivision with reference to the recorded plat map thereof (where the vesting deed covered multiple lots, tracts, or parcels of land, only the lot(s), tract(s), or parcel(s) containing the identified chemicals of concern would need to be included.) This is not a legal description of the Affected Property as set forth below. If the Affected Property (as set forth below) that is being made subject to the deed notice impacts the land of more than one owner, a separate deed notice needs to be filed for each tract.]

[OWNER or RESPONDER]

By: _____

Name: _____

Title: _____

STATE OF TEXAS

(_____) COUNTY

BEFORE ME, on this the _____ day of _____, personally appeared _____ [**name**] _____, _____ [**title**] _____, of _____ [**company**] _____, known to me to be the person whose name is subscribed to the foregoing instrument, and they acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, _____.

Notary Public in and for the State of Texas

County of _____

My Commission Expires: _____

Texas Risk Reduction Program

Restrictive Covenant

STATE OF TEXAS §

§

COUNTY OF _____ §

This Restrictive Covenant is filed to provide information concerning certain environmental conditions and use limitations pursuant to the Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program Rule (TRRP) found at 30 Texas Administrative Code (TAC), Chapter 350, and affects the real property (Property) described as follows:

[Insert legal description or a reference to an attached Exhibit A with the phrase, "attached hereto and incorporated herein by reference." This legal description needs to include the entire recorded tract of land held by the owner executing this restrictive covenant. The description should consist of the property description used in the last recorded vesting deed covering the Property or, if the Property has since been subdivided, the legal description for the subdivision with reference to the recorded plat map thereof (where the vesting deed covered multiple lots, tracts, or parcels of land, only the lot(s), tract(s), or parcel(s) containing the identified chemicals of concern would need to be included.) This is not a legal description of the Affected Property as set forth below. If the Affected Property (as set forth below) that is being made subject to the restrictive covenant impacts the land of more than one owner, a separate restrictive covenant needs to be filed for each tract.]

Portions of the [***soils and/or groundwater***] of the Property contain certain identified chemicals of concern causing those portions of the Property to be considered an Affected Property as that term is defined in the TRRP. The portion considered to be Affected Property is described as follows:

[Insert legal description and reference to an attached Exhibit B, with the phrase, "attached hereto and incorporated herein by reference." Exhibit B needs to include a metes and bounds description of the Affected Property and a plat map clearly demarcating the portions of the Property that contain the Affected Property. The map must contain a north arrow, a correlating map scale, and a legend identifying any used symbols or abbreviations. The metes and bounds description and plat map must be accompanied by a certification from

a registered professional land surveyor so registered by the Texas Board of Professional Surveying attesting to the accuracy of the descriptions. Also list each chemical of concern by environmental medium that exceeds the critical Protective Concentration Level.]

This Restrictive Covenant is required for the following reasons:

[Include appropriate paragraph(s) from the Appendix B, Insert A Paragraphs for Restrictive Covenant Form]

As of the date of this Restrictive Covenant, the record owner of fee title to the Property is _____ (Owner) with an address of

_____.

In consideration of the Response Actions by _____ (Responder), approval of the Response Action Completion Report, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Owner has agreed to place the following restrictions on the Property in favor of the TCEQ and the State of Texas, to-wit:

1. [Include appropriate paragraphs from Appendix B, Insert B Paragraphs for Restrictive Covenant Form].
2. These restrictions shall be a covenant running with the land.

For additional information, contact:

TCEQ	Mail:	TCEQ - MC 199
Central Records		P O Box 13087
12100 Park 35 Circle, Building E		Austin, Texas 78711-3087
Austin, Texas 78753		

TCEQ Program and Identifier No.: _____

This Restrictive Covenant may be rendered of no further force or effect only by a release executed by the TCEQ or its successor agencies and filed in the same Real Property Records as those in which this Restrictive Covenant is filed.

Executed this _____ day of _____, _____.

[OWNER]

By: _____

Name: _____

Title: _____

Executed this _____ day of _____, _____.

[RESPONDER]

By: _____

Name: _____

Title: _____

Accepted as Third Party Beneficiary this _____ day of _____, _____.

**Texas Commission on
Environmental Quality**

By: _____

Name: _____

Title: _____

STATE OF TEXAS

(_____) COUNTY

BEFORE ME, on this the _____ day of _____, personally appeared _____ [**name**]_____, _____ [**title**]_____, of [**owner**], known to me to be the person whose name is subscribed to the foregoing instrument, and they acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, _____.

Notary Public in and for the State of Texas,

County of _____

My Commission Expires: _____

STATE OF TEXAS

(_____) COUNTY

BEFORE ME, on this the _____ day of _____, _____ personally appeared _____ [**name**]_____, _____ [**title**]_____, of _____ [**responder company**]_____, known to me to be the person whose name is subscribed to the foregoing instrument, and they acknowledged to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, _____.

Notary Public in and for the State of Texas,

County of _____

My Commission Expires: _____

STATE OF TEXAS

(_____) COUNTY

BEFORE ME, on this the _____ day of _____, _____ personally appeared _____ [**name**] _____, _____ [**title**] _____, of the Texas Commission on Environmental Quality, known to me to be the person whose name is subscribed to the foregoing instrument, and they acknowledged to me that they executed the same for the purposes and in the capacity herein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, _____.

Notary Public in and for the State of Texas,

County of _____

My Commission Expires: _____

Appendices

Appendix A

Inserts For Deed Notice Form

Commercial/Industrial Land Use

The Affected Property currently meets TRRP standards for commercial/industrial use. Based on the reports, the chemicals of concern pose no significant present or future risk to humans or the environment based on commercial/industrial land use. No further remediation of the Affected Property is required by the TCEQ as long as the Affected Property is not to be used for residential purposes as the property may not be protective for residential use. If any person desires in the future to use the Affected Property for residential purposes, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary before the property may be used for residential purposes. Persons contemplating a change in land use for the Affected Property are encouraged to review the definitions for commercial/industrial and residential land use contained in TRRP as the definition of residential land use is broad.

Use of Remedy Standard B

Use of Physical Control on Soil

The Affected Property is subject to the TRRP requirements for properties containing concentrations of chemicals of concern in soil and is subject to the requirements in 30 TAC §350.33(e)(2) to prevent exposure to soils that contain a chemical of concern in excess of the protective concentration level. The attached Exhibit [] describes and provides the location of the physical control and extent of the soil that exceeds the TCEQ-approved protective concentration levels for certain chemicals of concern. The attached Exhibit [] also describes the required maintenance and monitoring required for the physical control. This program must be implemented unless and until TCEQ approves any modification. This deed notice must not be removed or modified without prior approval from TCEQ.

Use of a Waste Control Unit

The Affected Property is subject to the TRRP requirements for properties containing concentrations of chemicals of concern in groundwater underlying a waste control unit and is subject to the requirements in 30

TAC §350.33(f)(2) to prevent exposure to underlying groundwater that contains a chemical of concern in excess of the protective concentration level. A waste control unit includes municipal or industrial solid waste landfills, including Resource Conservation and Recovery Act-regulated units closed as landfills, with a liner system and engineered cap. The attached Exhibit [] provides the location of the waste control unit and extent of the groundwater underlying the waste control unit that exceeds the TCEQ-approved protective concentration levels for certain chemicals of concern. The attached Exhibit [] also describes the required maintenance and monitoring required for the waste control unit. This program must be implemented unless and until TCEQ approves any modification. Use of and exposure to this groundwater for any purpose is not advised until such time when all of the chemicals of concern no longer exceed their respective protective concentration levels. This deed notice and waste control unit must not be modified without prior approval from TCEQ.

Technical Impracticability

*The Affected Property is subject to the TRRP requirements for properties where the concentrations of chemicals of concern in the groundwater exceed the TCEQ-approved protective concentration levels. The TCEQ and the undersigned concur that it is not feasible to use currently available remediation technologies due either to hydrogeologic or chemical-specific factors to reduce the concentration of these chemicals of concern throughout all or a portion of the groundwater affected by the chemicals to the TCEQ-approved protective concentration levels within a reasonable time. The attached Exhibit [] provides the location and extent of the groundwater exceeding TCEQ-approved protective concentration levels and describes the maintenance and monitoring required until TCEQ approves some modification of those requirements. **[Exhibit [] also contains a description and location of the physical control used to maintain the Technical Impracticability zone and associated monitoring and maintenance requirements for that physical control.]** Use of and exposure to the affected groundwater for any purpose is not advised unless otherwise approved in writing by the TCEQ or until such time as all of the chemicals of concern no longer exceed their respective protective concentration levels. This deed notice **[and the physical control]** must not be removed or modified without prior approval from TCEQ.*

Plume Management Zone

The Affected Property is subject to the TRRP requirements for properties with an area overlying a TCEQ-approved plume management zone. A plume management zone is defined as an area of groundwater containing concentrations of chemicals of concern exceeding the TCEQ-approved protective concentration levels for the site, plus any additional area allowed

by the TCEQ in accordance with 30 TAC §350.33(f)(4). The undersigned has established a plume management zone so that the chemicals of concern in the groundwater are managed such that human exposure is prevented and that other groundwater resources are protected. The attached Exhibit [] provides the location and extent of the plume management zone and describes the maintenance and monitoring required. This maintenance and monitoring is required until TCEQ approves some modification of those requirements. **[Exhibit [] also contains a description and location of the physical control used to maintain the Technical Impracticability zone and associated monitoring and maintenance requirements for that physical control.]** Exposure to groundwater within the plume management zone for any purpose is not advised until such time when all of the chemicals of concern no longer exceed their respective protective concentration levels. This deed notice [and the physical control] must not be removed or modified without prior approval from TCEQ.

Use of Institutional Controls to Address “Other Reasonably Anticipated to be Completed Exposure Pathways”

Agricultural exposure pathway: The Affected Property currently meets TRRP standards for **[residential or commercial/industrial]** land use. Based on the reports, the chemicals of concern pose no significant present or future risk to humans or the environment based on **[residential or commercial/industrial]** land use. However, agricultural exposure pathways such as uptake in crops or livestock or toxicity to crops or livestock were not considered. No further remediation of the Affected Property is required by the TCEQ as long as the Affected Property is not to be used for residential or agricultural purposes. If any person desires in the future to use the Affected Property for agricultural purposes, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary before the property may be used for agricultural purposes. Persons contemplating a change in land use for the Affected Property are encouraged to review the definitions for commercial/industrial and residential land use contained in TRRP. This deed notice must not be removed or modified without prior approval from TCEQ.

Indoor Vapor Intrusion: The Affected Property currently meets TRRP standards for **[residential or commercial/industrial]** land use. Based on the reports, the chemicals of concern pose no significant present risk to humans or the environment based on **[residential or commercial/industrial]** land use. However, because of the nature of the chemicals of concern, if buildings are developed at the Affected Property, the Affected Property may not be protective against indoor vapor intrusion from the underlying **[soil and/or groundwater]**. Therefore, buildings should be designed to preclude indoor vapor intrusion, or the Affected Property should be re-evaluated for potential indoor vapor intrusion prior to

building development. If any person desires in the future to develop buildings at the Affected Property, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary during or before the building development. This deed notice must not be removed or modified without prior approval from TCEQ.

Use of Site-Specific Exposure Assumptions

Change from Default Residential Exposure Area

The executive director of the TCEQ has approved the use of an exposure area of _____ acre(s) to evaluate potential exposure of residents to chemicals of concern in surface soils. The default assumption for the size of the soil exposure area at residential properties is 1/8 acre or the size of the existing front or back yard at the residential lot. The approval of this larger than default exposure area is based upon site-specific documentation that the activity patterns of residents is such that they will have free and equal access to surface soils over a _____ acre area. If conditions change such that residents are restricted to a smaller surface area over which exposure to chemicals of concern in surface soils may occur (e.g., installation of a playscape), the Affected Property must be re-evaluated with TCEQ to ensure protection of human health.

Change from Default Commercial/Industrial Exposure Area

The executive director of the TCEQ has approved the use of an exposure area of _____ acre(s) to evaluate potential exposure of commercial/industrial workers to chemicals of concern in surface soils. The default assumption for the size of the soil exposure area at commercial/industrial properties is 1/2 acre. The approval of this larger than default exposure area is based upon site-specific documentation that the activity patterns of commercial/industrial workers is such that they will have free and equal access to surface soils over a _____ acre area. If conditions change such that commercial/industrial workers are restricted to a smaller surface area over which exposure to chemicals of concern in surface soils may occur, the Affected Property must be re-evaluated to ensure protection of human health.

Use of Occupational Inhalation Criteria

Eight-hour time-weighted occupational inhalation criteria (i.e., the lower of the Occupational Safety and Health Administration Permissible Exposure Limits or American Conference of Governmental Industrial Hygienists Threshold Limit Values for a specific chemical of concern) are being used to evaluate protection for on-site workers via the air inhalation exposure

pathway for chemicals of concern present in [soil and/or groundwater]. The owner must maintain conformance with the health and safety plan for the working space that is designed to ensure compliance with occupational inhalation criteria. The health and safety plan requires monitoring of chemicals of concern in the working air environment and specific actions that will be taken in the event the occupational inhalation criteria are exceeded. Failure to maintain conformance with the occupational inhalation criteria and the health and safety plan will constitute a substantial change in circumstances in response to 30 TAC §350.35(d)(5) of TRRP and will result in re-evaluation of the hazards posed by the Affected Property.

Change from Default Exposure Frequency and Duration

The executive director of the TCEQ has approved the use of an exposure frequency of __ days per year and an exposure duration of ___ year(s) to evaluate potential exposure of commercial/industrial workers to the [soils and/or groundwater] of the Affected Property which contain certain identified chemicals of concern. The approval of a reduced exposure frequency and/or exposure duration value is based upon site-specific documentation that the activity patterns of commercial/industrial workers is such that they will not have access to the Affected Property for a time period exceeding ____ days per year and/or a total of __ years. The default exposure frequency is 250 days per year and the default exposure duration is 25 years for commercial/industrial workers. If conditions change such that commercial/industrial workers are exceeding either the approved exposure frequency or exposure duration, an unprotective situation may exist, in which case the Affected Property must be re-evaluated.

Relocation and Reuse of Soil Containing COCs

(if a physical control is used, see also Remedy Standard B inserts)

The Affected Property currently meets TRRP standards for commercial/industrial use. Soils containing chemicals of concern were placed at this property in the locations graphically depicted in Exhibit []. These chemicals of concern pose no significant present or future risk to humans or the environment based on commercial/industrial land use. No remediation of the Affected Property is required by the TCEQ as long as the Affected Property is not to be used for residential purposes. If any person desires in the future to use the Affected Property for residential purposes, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary before the Affected Property may be used for residential purposes. Persons contemplating a change in land use for the Affected Property are encouraged to review the definitions for commercial/industrial and residential land use contained in TRRP.

Long Term (>15 years) Response Action

*Remediation of the Affected Property is in progress to achieve protective conditions for the use of the Affected Property for **[residential or commercial/industrial]** use. This notice is required to inform others of the ongoing long-term response action.*

Facility Operations Area

*The Affected Property has been authorized as a Facility Operations Area and is subject to the TRRP requirements at 30 TAC §§350.131 to 350.135. A Facility Operations Area is defined as one or more areas (lateral and vertical extent) of an operational chemical or petroleum manufacturing plant with a hazardous waste permit or TCEQ-issued corrective action order within which response actions to multiple releases of chemicals of concern can be consolidated on an area-wide basis by using interim or permanent response actions. **[Soil and/or groundwater]** within the Facility Operations Area contains concentrations of chemicals of concern that exceed the TCEQ-approved protective concentration levels. Remediation of these chemicals of concern within the Facility Operations Area is **[ongoing or deferred]** as described in Exhibit [] and, in the interim, appropriate measures shall be taken to ensure the protection of workers and authorized visitors. Additionally, the facility owner and/or operator must restrict access to the Facility Operations Area to only workers and authorized visitors who have been provided appropriate training or are subject to controls on their activities within the area.*

Cancellation or Modification of Prior IC

Cancellation

*A prior deed notice was filed for the Affected Property **[insert deed filing reference for the prior-filed deed notice]** in accordance with 30 TAC Chapter 350 requirements. The condition that triggered the prior deed notice was **[state condition]**. However, upon further review of the property by the TCEQ at the request of the owner of the property to which this notice applies, the TCEQ has determined that the property no longer requires the prior deed notice. This deed notice supersedes the prior deed notice. The TRRP rule requires TCEQ to consent to the filing of a superseding deed notice when the conditions necessitating the filing of the original deed notice do not warrant the deed notice to be kept in force.*

Modification of Deed Notice

(Precede the insert text for the remaining relevant triggers with the following text)

*A prior deed notice was filed for the Affected Property [**insert deed filing reference for the prior-filed deed notice**] in accordance with 30 TAC Chapter 350 requirements. The condition that triggered the prior deed notice was [**state condition**]. However, the conditions at the affected property have changed as follows: [**describe changes as relate to reason prior deed notice was filed**]. In response to the changed conditions, this deed notice supersedes the prior deed notice. The TRRP rule requires TCEQ to consent to the filing of a superseding deed notice when the conditions necessitating the filing of the original deed notice have been changed.*

Appendix B

Inserts For Restrictive Covenant Form

Commercial/Industrial Land Use

Insert A:

The Affected Property currently meets TRRP standards for commercial/industrial use. Based on the reports, the chemicals of concern pose no significant present or future risk to humans or the environment based on commercial/industrial land use. No further remediation of the Affected Property is required by the TCEQ as long as the Affected Property is not to be used for residential purposes. If any person desires in the future to use the Affected Property for residential purposes, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary before the property may be used for residential purposes. Persons contemplating a change in land use for the Affected Property are encouraged to review the definitions for commercial/industrial and residential land use contained in TRRP as the definition of residential land use is broad.

Insert B:

The Property shall not be used for any purposes other than commercial/industrial uses, as defined in 30 Texas Administrative Code, Chapter 350, Section 350.4(a)(13).

Use of Remedy Standard B

Use of Physical Control on Soil

Insert A:

The Affected Property is subject to the TRRP requirements for properties containing concentrations of chemicals of concern in soil and is subject to the requirements in 30 TAC §350.33(e)(2) to prevent exposure to soils that contain a chemical of concern in excess of the protective concentration level. The attached Exhibit [] describes and provides the location of the physical control and extent of the soil that exceeds the TCEQ-approved protective concentration levels for certain chemicals of concern. The attached Exhibit [] also provides the reason the physical control must remain in place, and describes the required maintenance and monitoring

required for the physical control. This program must be implemented unless and until TCEQ approves any modification.

Insert B:

The removal or modification of the physical control on the Affected Property is prohibited without prior approval from TCEQ and the physical control must be maintained and monitored as described in Exhibit []. Removal or modification of this restrictive covenant is prohibited without prior approval of TCEQ.

Use of Waste Control Unit

Insert A:

The Affected Property is subject to the TRRP requirements for properties containing concentrations of chemicals of concern in groundwater underlying a waste control unit and is subject to the requirements in 30 TAC §350.33(f)(2) to prevent exposure to underlying groundwater that contains a chemical of concern in excess of the protective concentration level. A waste control unit includes municipal or industrial solid waste landfills, including Resource Conservation and Recovery Act-regulated units closed as landfills, with a liner system and engineered cap. The attached Exhibit [] provides the location of the waste control unit and extent of the groundwater underlying the waste control unit that exceeds the TCEQ-approved protective concentration levels for certain chemicals of concern. The attached Exhibit [] also describes the required maintenance and monitoring required for the waste control unit. This program must be implemented unless and until TCEQ approves any modification.

Insert B:

The removal or modification of the waste control unit on the Affected Property is prohibited without prior approval from TCEQ and the waste control unit must be maintained and monitored as described in Exhibit []. Use of and exposure to the groundwater underlying the waste control unit for any purpose is prohibited until such time when all the chemicals of concern no longer exceed their respective protective concentration levels. Removal or modification of this restrictive covenant is prohibited without prior approval of TCEQ.

Technical Impracticability

Insert A:

The Affected Property is subject to the TRRP requirements for properties where the concentrations of chemicals of concern in the groundwater exceed the TCEQ-approved protective concentration levels. The TCEQ concurred that it is not feasible from a physical perspective using currently

available remediation technologies due either to hydrogeologic or chemical-specific factors to reduce the concentration of these chemicals of concern throughout all or a portion of the groundwater affected by the chemicals to the TCEQ-approved protective concentration levels within a reasonable time. The attached Exhibit [] provides the location and extent of the groundwater exceeding TCEQ-approved protective concentration levels and describes the maintenance and monitoring required. This maintenance and monitoring must be implemented unless and until TCEQ approves some modification of those requirements.

Insert B:

Use of and exposure to the groundwater underlying the Affected Property for any purpose is prohibited until such time when all the chemicals of concern no longer exceed their respective protective concentration levels. The maintenance and monitoring described in Exhibit [] is required. Removal or modification of this restrictive covenant is prohibited without prior approval of TCEQ.

Plume Management Zone

Insert A:

The Affected Property is subject to the TRRP requirements for properties with an area overlying a TCEQ-approved plume management zone. A plume management zone is defined as an area of groundwater containing concentrations of chemicals of concern exceeding the TCEQ-approved protective concentration levels, plus any additional area allowed by the TCEQ in accordance with 30 TAC §350.33(f)(4). A plume management zone was established so that the chemicals of concern in the groundwater are managed such that human exposure is prevented and other groundwater resources are protected. The attached Exhibit [] provides the location and extent of the plume management zone and describes the maintenance and monitoring required. This maintenance and monitoring must be implemented unless and until TCEQ approves some modification of those requirements.

Insert B:

Exposure to the groundwater underlying the Affected Property for any purpose is prohibited until such time when all the chemicals of concern no longer exceed their respective protective concentration levels. The maintenance and monitoring described in Exhibit [] is required. Any modification of this restrictive covenant is prohibited without prior approval of TCEQ.

Use of Institutional Controls to Address “Other Reasonably Anticipated to be Completed Exposure Pathways”

Insert A:

Agricultural Exposure Pathway: *The Affected Property currently meets TRRP standards for [residential or commercial/industrial] land use. Based on the reports, the chemicals of concern pose no significant present or future risk to humans or the environment based on [residential or commercial/industrial] land use. However, agricultural exposure pathways such as uptake in crops or livestock or toxicity to crops or livestock were not considered. No further remediation of the Affected Property is required by the TCEQ as long as the Affected Property is not to be used for residential or agricultural purposes. If any person desires in the future to use the Affected Property for agricultural purposes, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary before the property may be used for agricultural purposes. Persons contemplating a change in land use for the Affected Property are encouraged to review the definitions for commercial/industrial and residential land use contained in TRRP.*

Insert B:

Agricultural use of the Affected Property is prohibited without prior approval from TCEQ. Removal or modification of this restrictive covenant is prohibited without prior approval of TCEQ.

Insert A:

Indoor Vapor Intrusion: *The Affected Property currently meets TRRP standards for [residential or commercial/industrial] land use. Based on the reports, the chemicals of concern pose no significant present risk to humans or the environment based on [residential or commercial/industrial] land use. However, because of the nature of the chemicals of concern, if buildings are developed at the Affected Property, the Affected Property may not be protective against indoor vapor intrusion from the underlying [soil and/or groundwater]. Therefore, buildings should be designed to preclude indoor vapor intrusion, or the Affected Property should be re-evaluated for potential indoor vapor intrusion prior to building development. If any person desires in the future to develop buildings at the Affected Property, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary during or before the building development.*

Insert B:

The development of buildings at the Affected Property is prohibited without prior approval from TCEQ. Removal or modification of this restrictive covenant is prohibited without prior approval of TCEQ.

Use of Site-Specific Exposure Assumptions

Change from Default Residential Exposure Area

Insert A:

The executive director of the TCEQ has approved the use of an exposure area of _____ acre to evaluate potential exposure of residents to surface soils. The default assumption for the size of the soil exposure area at residential properties is 1/8 acre, or the size of the existing front or backyard at the residential lot. The approval of this larger than default exposure area is based upon site-specific documentation that the activity patterns of residents is such that they will have free and equal access to surface soils over a _____ acre area. If conditions change such that residents are restricted to a smaller surface area over which exposure to surface soils may occur (e.g., installation of a playscape), the Affected Property must be re-evaluated with TCEQ to ensure protection of human health.

Insert B:

The Affected Property shall not be subdivided into individual tracts smaller than ___ acre(s) without prior approval from TCEQ.

Change from Default Commercial/Industrial Exposure Area

Insert A:

The executive director of the TCEQ has approved the use of an exposure area of _____ acre(s) to evaluate potential exposure of commercial/industrial workers to surface soils. The default assumption for the size of the exposure area to soil at commercial/industrial properties is 1/2 acre. The approval of this larger than default exposure area is based upon site-specific documentation that the activity patterns of commercial/industrial workers is such that they will have free and equal access to surface soils over a _____ acre area. If conditions change such that commercial/industrial workers are restricted to a smaller surface area over which exposure to surface soils may occur, the Affected Property must be re-evaluated to ensure protection of human health.

Insert B:

The Affected Property shall not be subdivided into individual tracts smaller than ___ acre(s) without prior approval from TCEQ.

Change from Default Exposure Frequency and/or Duration

Insert A:

The executive director of the TCEQ has approved the use of an exposure frequency of ___ days per year and an exposure duration of _____ year(s) to evaluate potential exposure of commercial/industrial workers to the [soils and/or groundwater] of the Affected Property which contain certain identified chemicals of concern. The approval of a reduced exposure frequency and/or exposure duration value is based upon site-specific documentation that the activity patterns of commercial/industrial workers is such that they will not have access to the Affected Property for a time period exceeding _____ days per year and/or a total of ___ years. The default exposure frequency is 250 days per year and the default exposure duration is 25 years for commercial/industrial workers. If conditions change such that commercial/industrial workers are exceeding either the approved exposure frequency or exposure duration, an unprotective situation may exist.

Insert B:

The Affected Property shall not be used in a manner that would allow commercial/industrial workers access to the Property for a time period exceeding _____ days per year and/or a total of ___ years, without prior TCEQ approval.

Relocation and Reuse of Soil Containing COCs

(if a physical control is used, see also Remedy Standard B inserts)

Insert A:

The Affected Property currently meets TRRP standards for commercial/industrial use. Soils containing chemicals of concern were placed at this property in the locations graphically depicted in Exhibit []. These chemicals of concern pose no significant present or future risk to humans or the environment based on commercial/industrial land use. No remediation of the Affected Property is required by the TCEQ as long as the Affected Property is not to be used for residential purposes. If any person desires in the future to use the Affected Property for residential purposes, the TCEQ must be notified at least 60 days in advance of such use and additional response actions may be necessary before the property may be used for residential purposes. Persons contemplating a change in land use for the Affected Property are encouraged to review the definitions for commercial/industrial and residential land use contained in TRRP.

Insert B:

The Property shall not be used for any purposes other than commercial/industrial uses, as defined in 30 Texas Administrative Code, Chapter 350, Section 350.4(a)(13).

Release or Modification of Prior IC

Release of Restrictive Covenant

*A prior restrictive covenant was filed for the property [**insert deed filing reference for the prior-filed restrictive covenant**] in accordance with 30 TAC Chapter 350 requirements. The condition that triggered the prior restrictive covenant was [**state condition**]. However, the conditions at the affected property have changed as follows: [**describe changes as relate to reason prior restrictive covenant was filed**]. Upon further review of the property by the TCEQ at the request of the owner of the property to which this notice applies, the TCEQ has determined that the property no longer requires the prior restrictive covenant. This filing releases the prior restrictive covenant. The TRRP rule requires TCEQ to consent to this filing when the conditions necessitating the filing of the original restrictive covenant no longer exist and the current conditions do not warrant the restrictive covenant to be kept in force.*

Modification of Restrictive Covenant

(Include below text as a prelude to applicable inserts for the remaining relevant IC triggers)

*A prior restrictive covenant was filed for the property [**insert deed filing reference for the prior-filed restrictive covenant**] in accordance with 30 TAC Chapter 350 requirements. The condition that triggered the prior restrictive covenant was [**state condition**]. However, the conditions at the affected property have changed as follows: [**describe changes as relate to reason prior restrictive covenant was filed**]. In response to the changed conditions, the prior restrictive covenant is superseded by this modified restrictive covenant. The TRRP rule requires TCEQ to consent to the filing of a superseding restrictive covenant when the conditions necessitating the filing of the original restrictive covenant have changed.*