DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name:	DuPont Performance Coatings, Inc						
Facility Address:	7961 Winchester Road, Front Royal, Virginia 22630						
Facility EPA ID #:	VAD 980 554 539						

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

X If yes - check here and continue with #2 below.

_____ If no - re-evaluate existing data, or

If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" El

A positive "Current Human Exposures Under Control" El determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

El Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**¹ above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater		<u>_X</u>		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Air (indoors) ²		<u>X</u>		
Surface Soil (e.g., <2 ft)		<u>X</u>		
Surface Water	Ana	<u>_X</u>		·······
Sediment		<u>_X</u>		
Subsurf. Soil (e.g., >2 ft)		<u>X</u>		
Air (outdoors)		<u>X</u>		

X If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Site Background

The site is located in Warren County, Virginia, just north of Front Royal (Figure 1). It covers approximately 195 acres and is situated at the northeast corner of the intersection of U.S. Route 340/522 and Route 658. The nearest residence to the facility is approximately 60 feet from the property boundary and 1,000 feet from the manufacturing area to the northeast.

Since June 1981, the Front Royal plant has manufactured resin polymers finishes and paint related products for the automotive original equipment and after market. Prior to plant construction in 1981, the site was used for agricultural purposes.

The facility currently employs approximately 400 individuals and operates 24 hour per day 7 day per week. The facility layout includes an office area, two story manufacturing area, and a packaging/warehouse location. Areas around tanks and manufacturing units are typically concrete and asphalt. The active portion is completely surrounded by a 7-foot high chain link fence. Access to the site both vehicular and pedestrian is controlled through a single entrance. Security personnel on a 24-hour basis man this entrance. Security guards make frequent tours of the site perimeter to detect unauthorized entry.

The facility was constructed in a manner that did not place any product lines underground. The facility was built with each building having containment measures, including trench drains. An on-site spill basin allows for the detention of liquids for testing prior to on-site surface discharge. Stormwater is surface discharged on-site through a gate-controlled outfall. The entire facility is built on a grade that provides for secondary containment with an earthen dam.

Eleven solid waste management units (SWMUs) and two areas of concern (AOCs) were identified in the RCRA Site Visit Report (Tetra Tech, 2007). Releases have been documented at the two AOCs. However, remediation at each area included the excavation and off-site disposal of potentially impacted soil. A description of each SWMU and AOC is listed below:

	SWMU / AOC Name	Description
	SWMU #1 - Raw Materials Warehouse Less than 90 Day Storage Area	This SWMU is used as a less than 90-day storage area for the facility to temporarily store hazardous and non-hazardous waste generated at the facility prior to shipment off-site for disposal. Hazardous waste that is generated in several satellite collection areas around the Front Royal site is transferred to this location before it is sent off-site. The area is a 17-foot by 26-foot area with a concrete floor inside the General Operations Building. Secondary containment consists of concrete curbing.
2	SWMU #2 - Manufacturing Floor Compactor	This unit is used as a less than 90-day storage area for the facility to temporarily store hazardous waste generated at the Front Royal site and to compact the waste into drums. It is located on a 7-foot by 8-foot concrete floor with concrete curbing acting as secondary containment.
3	SWMU #3 - Solvent Rail Car Loading Station #3	The facility uses this station to transfer waste sludge WFR071 (Still Bottoms) from hazardous waste tank 5103 to railcar for offsite disposal (recycled as fuel). This station is considered a less than 90-day storage pad and has a surrounding berm and secondary containment system, which would capture any spills or releases. The secondary containment system consists of a capture sump/tray connected to a concrete trench system and is equipped with weir gates to contain any potential spill within the system. In addition, the secondary containment system is also equipped with hydrocarbon detectors that notify plant personnel if hydrocarbon compounds are detected, allowing for immediate response.
4	SWMU #4 - Solvent Recovery Container Storage Pad	This unit is treated as a less than 90-day container storage pad used to store hazardous waste prior to shipment off site for disposal. This pad measures 68-feet by 64-feet and has secondary containment. The secondary containment system consists of a concrete capture trench system and is equipped with weir gates to contain any potential spill within the system and is also equipped with hydrocarbon detectors that notify plant personnel if hydrocarbon compounds are detected, allowing for immediate response.
5	SWMU #5 - Process Blending Tanks 5101 and 5102 (Solvent Recovery Tanks)	Process Blending Tanks 5101 and 5102 are situated on elevated platforms. They have been used as part of the plant solvent recovery/recycling system. These tanks collect dirty wash solvents used to clean all process equipment including tanks, lines, and, filling equipment. The dirty wash solvent is collected in either Tank 5101 or 5102 then blended to a homogeneous consistency prior to reclaiming in the distillation unit. When one tank is being used for feedstock to the distillation unit, the other tank is being used for collection and blending. The tanks are in use 24 hours per day/seven days per week. These tanks were included in the original Hazardous Waste Permit prepared by DuPont Front Royal and VDEQ as the tanks were erroneously described as handling waste material and subsequently classified as hazardous waste storage tanks. This classification did not take into account the fact that they did not handle waste but rather solvents to be recycled in the solvent recovery system. Tanks 5101 and 5102 have been constructed so as to allow for early leak detection. Both tanks have secondary containment, which consists of a concrete capture trench system, which is equipped with weir gates to contain any potential spill within the system, and is also equipped with hydrocarbon detectors that notify plant personnel if hydrocarbon compounds are detected, allowing for immediate response. One spill occurred on January 11, 1982 when the tanks were listed as containing hazardous waste. The spill was contained within the secondary containment. Material was collected and disposed of with no impact to the environment. Tanks 5101 and 5102 were granted clean closure in correspondence from VDEQ to DuPont Front Royal on November 7, 1996. At that time, Tanks 5101 and 5102 were correctly classified as process tanks for the solvent recovery distillation system.
6	SWMU #6 - Solvent Recovery Hazardous Waste Storage Tank 5103	Tank 5103 is used to store hazardous waste consisting of still bottoms from the distillation unit prior to off-site shipment for disposal (energy recovery in a cement kiln). This unit has been constructed so as to allow for early leak detection and has secondary containment. The secondary containment system consists of a concrete capture trench system and is equipped with weir gates to contain any potential spill within the system and is also equipped with hydrocarbon detectors that notify plant personnel if hydrocarbon compounds are detected, allowing for immediate response. Tank 5103 was granted clean closure in correspondence from VDEQ to DuPont Front Royal on November 7, 1996. The closure activities were conducted in accordance with the modified closure plan approved by the VDEQ on July 25, 1996. In an internal VDEQ memorandum dated November 7, 1996 it is noted that the facility will use Tank 5103 as a "less-than-90 day accumulation area".

7	SWMU #7 - Hazardous Waste Storage Tank 5104	Tank 5104 is used to store hazardous waste waters generated as a by-product from resin manufacturing process prior to off site shipment for disposal. This unit has been constructed so as to allow for early leak detection and has secondary containment. The secondary containment system consists of a concrete capture trench system and is equipped with weir gates to contain any potential spill within the system and is also equipped with hydrocarbon detectors that notify plant personnel if hydrocarbon compounds are detected, allowing for immediate response. Tank 5104 was granted clean closure in correspondence from VDEQ to DuPont Front Royal on November 7, 1996. The closure activities were conducted in accordance with the modified closure plan approved by the VDEQ on July 25, 1996. In an internal VDEQ memorandum dated November 7, 2006 it is noted that the facility will use Tank 5104 as a "less-than-90 day accumulation area".
8	SWMU #8 - Emergency Spill Basin	This unit is an 185,000-gallon epoxy and rubber coated concrete basin that sits within a clay-lined excavation. The basin is designed to receive any discharges from the site manufacturing area through an impermeable clay-lined concrete trenching system. The capacity of the basin is designed to hold 122% of the hazardous waste storage capacity or 26% of the maximum if a 25-year 24-hour storm has deposited six inches of rain on the plant. The basin and trenching system are also equipped with hydrocarbon detectors that notify plant personnel if a leak should occur. Rainwater collected is surface discharged on site through a gate-controlled outfall.
9	SWMU #9 - Non Hazardous Waste Trash Compactor	There are two compactors and four dumpsters on-site used for the storage of recyclable materials. The units have typical capacities of 40- cubic yards. The dumpster is an enclosed unit. The trash compactors and dumpsters sit on concrete pads. Only dry non-hazardous materials are disposed of in dumpsters and associated compactors. The dumpsters are emptied twice weekly for disposal off site.
10	SWMU #10 - Satellite Accumulation Areas (Wiper Pails)	There are approximately 25 wiper pail satellite accumulation areas on-site. The pails are emptied daily and contents compacted into drums in SWMU #2.
11	SWMU #11 - Dust System Bag House	Pigment dust is collected from the blower system in the Dust System Bag House. The system is closed and deposits materials collected directly into dumpsters. The materials are transported off-site and sent for incineration at another DuPont facility in Texas.
12	AOC A - Roof Top Resin Tank Failure	On June 10, 1989, 600 gallons of resin were released onto the building roof. A volume measuring device on a resin storage tank failed, which allowed approximately 300 gallons of material to enter the storm sewer drainage ditch via roof drains. The storm sewer drainage ditches are lined with two feet of impermeable clay and constructed with weir gates to prevent any potential releases from the system. Upon completion of the remediation activities, this area was upgraded with a concrete liner and weir gate to prevent any potential releases to the environment. The ditch was immediately diked off and the material, as well as all soil and gravel which had possible contact with it, was excavated to a depth of 6-inches and placed in containers. The soil was disposed at a secured landfill after each container was sampled. Samples were analyzed and the analytical test results showed the soil did not exhibit ignitability characteristics (D001) prior to disposal. The State Water Control Board and county officials were involved in all remedial decisions. As a result, redundant controls were added to all resin storage tanks to prevent a spill of this nature from occurring again.
13	AOC B - Roof Top Product Tank Overflow	On July 14, 2003, a solenoid valve failed resulting in a 500 to 600 gallon spill of RKP3074. Clear Coat from a roof top vent connected to Tank 9010. The mechanical failure of the solenoid valve allowed the tank to be overfilled. All spilled material was contained in the storm sewer on the south end of the finished product warehouse. The storm sewer drains are lined with two feet of impermeable clay and constructed with weir gates to prevent any potential releases from the system. The liquid material was pumped out and secured in drums for disposal. The area was excavated until there were no visual signs of liquids or discoloration and replaced with clean dry impermeable clay. Approximately 12-inches to 24-inches of clay and gravel was removed from the contaminated section of the containment trench and secured in lined roll off bins for appropriate offsite disposal.

Data Set for EI Evaluation

Site data evaluated for this step included shallow confirmatory soil samples collected from six locations associated with AOC A (Roof Top Resin Tank Failure) and AOC B (Roof Top Product Tank Overflow) at locations illustrated on Figure 2. One surface soil sample (collected from depths less than 2 feet below ground surface [bgs]) and two subsurface soil samples (collected from depths greater than 2 ft bgs) were collected from each AOC to evaluate documented past releases at the areas. Soil sample locations are detailed in Figure 2. Soil samples were analyzed for Appendix IX volatile organic compounds (VOCs) plus tentatively identified compounds (TICs) using USEPA SW846 method 8260B. Analytical results are summarized in the table presented below and compared to the EPA, 2009, Regional Screening Levels for Chemical Contaminants at Superfund Sites, May 20.

		[AOC A					
	1		Sample ID	HA-01	HA-02	HA-02	HA-03		
	1	EPA SL	Date	11/15/06	11/15/06	11/15/06	11/15/06		
		Ind Soil	Top (ft)	3.5	3.5	3.5	0.5		
		Screening	Bottom (ft)	4	4	4	1		
Analyte	units	Criteria	Duplicate #	FS	FS	900	FS		
ACETONE	mg/kg	610000	[<u>- U 900.0></u>	0.019.0	0.038	0.034 J		
CARBON DISULFIDE	mg/kg	3000		<0.001 U	<0.001 U	<0.001 U	<0.002 U		
ETHYLBENZENE	mg/kg	29		<0.001 U	<0.001 U	<0.001 U	<0.002 U		
METHYL ETHYL KETONE	mg/kg	190000		<0.005 U	<0.005 U	<0.005 U	<0.008 U		
METHYLENE CHLORIDE	mg/kg	54		0.004 J	0.003 J	<0.003 U	0.005 J		
TOLUENE	mg/kg	46000		<0.001 U	<0.001U	<0.001 U	<0.002 U		
XYLENES	mg/kg	2600		<0.001 U	<0.001 U	<0.001 U	<0.002 U		
PERCENT MOISTURE	%			20.9	28.4	29.1	22.2		

	T		Γ	AOC B			
		· · · · · · · · · · · · · · · · · · ·	Sample ID	HA-01	HA-02	HA-03	
		EPA SL	Date	11/15/06	11/15/06	11/15/06	
	1	Ind Soil	Top (ft)	1.5	Ž	2	
		Screening	Bottom (ft)	2	2.5	2.5	
Analyte	units	Criteria	Duplicate #	FS	FS	FS	
ACETONE	mg/kg	610000		0.046	0.012 J	0.026	
CARBON DISULFIDE	mg/kg	3000		<0.001 U	0.002 J	<0.001 U	
ETHYLBENZENE	mg/kg	29		<0.001 U	0.9	<0.001 U	
METHYL ETHYL KETONE	mg/kg	190000		0.008 J	<0.004 U	<0.005 U	
METHYLENE CHLORIDE	mg/kg	54		0.002 J	<0.002 U	0.003 J	
TOLUENE	mg/kg	46000		<0.001 U	0.017	<0.001 U	
XYLENES	mg/kg	2600		<0.001 U	3.4	<0.001 U	
PERCENT MOISTURE	%	1		19.5	21.9	25.7	

U - Not detected at stated reporting limit

J-Estimated value

Constituents of Potential Concern

Groundwater: Groundwater is not a media of concern at the site. The facility currently maintains 5 vapor wells surrounding the fuel oil tank. The wells are 50 feet in depth and penetrate into bedrock. No sampling data was provided for the wells. However, facility representatives have indicated that no vapors have ever been detected in these wells. In addition, there are no documented releases that have occurred that could have impacted groundwater conditions at the facility. Groundwater is not currently used as a potable or irrigation water supply at the facility. The plant utilizes local municipal potable water.

Air (indoors): Indoor air is not a media of concern. There are no documented releases that have occurred that could have impacted subsurface conditions with volatile constituents.

Surface soil: Surface soil is not a media of concern at the site. As indicated in the above table, no COPCs were identified at AOCs A and B. Releases are not indicated at the other SWMUs. In addition, the facility was constructed with concrete or gravel containment trenches that are clay lined.

Surface Water: Surface water is not considered a media of concern at the site. There are no surface water bodies of concern at the facility. The nearest surface water body is Crooked Run, located approximately 1000-feet west from the DuPont Front Royal property boundary. Crooked Run flows into the Shenandoah River. There are no known or documented releases to this or other surface water bodies.

Sediment: Similar to the arguments presented above for surface water, sediment is not considered a media of concern at the site.

Subsurface Soil: Subsurface soil is not a media of concern at the site. As indicated in the above table, no COPCs were identified at AOCs A and B. Furthermore, site-specific health and safety procedures are in place to effectively mitigate intrusive activities.

Air (outdoors): No COPCs were identified in soil at AOCs A and B. In addition, the majority of the site has some type of cover/cap present; thereby, minimizing potential exposure to soil. As a result, outdoor air is not a media of concern.

Screening Levels Used to Evaluate Site Data

Concentrations of constituents detected in the EI evaluation data set were compared to appropriate screening levels to assess potential impact to human health and the environment and to identify COPCs. Surface and subsurface soil concentrations were compared to USEPA Regional Screening Levels (SLs) for industrial soil (USEPA, 2009). The SLs represents a combined exposure including inhalation of particulates and volatile compounds, dermal absorption, and ingestion.

References:

Tetra Tech EC, Inc.. Final RCRA Site Visit Report. March 2007.

Footnotes:

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential Human Receptors (Under Current Conditions)									
Contaminated Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³		
Groundwater									
Air (indoors)									
Soil (surface, e.g., <2 ft)		·		·					
Surface Water									
Sediment	·//,	·							
Soil (subsurface e.g., >2 II)	*******								
m (outdoors)									

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media – Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("____"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) – continue after providing supporting explanation.

If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

(See Discussion under Item No. 2 above.)

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be "**significant**"⁴ (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

If unknown (for any complete pathway) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

⁴ If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5. Can the "significant" exposures (identified in #4) be shown to be within acceptable limits?

If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code.

Rationale and Reference(s):

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control El event code 125 (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

X YES - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under control" at the DuPont Performance Coatings, EPA ID # VAD 980 554 539, located at 7961 Winchester Road in Front Royal, Virginia, under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

NO - "Current Human Exposures" are NOT "Under Control."

IN - More information is needed to make a determination.

Completed by: (signature)	Allonso
(print)	Angela Alonso
(title)	Environmental Engineer
Supervisor: (signature) (print)	Durwood Willis
(title)	Director, Office of Remediation Programs
(EPA Region or State)	VA DEQ

Date 9/11/09 Date 9/11/09

Locations where References may be found:

VA Department of Environmental Quality	
629 East Main Street	
Richmond, VA 23219	

Contact telephone and e-mail numbers (name) Erich Weissbart (phone #) (804) 698-4393 ······ (e-mail) Erich.Weissbart@deq.virginia.gov

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.



